

1. Introduction

1.1 Research Background

The focus of this dissertation is market integration at different spatial levels, and particularly, the process of market integration taking place within a country's borders. This process is studied in a country located in a region where programs seeking deeper regional and integration are promoted. Economic integration is a complex balancing act, especially in areas where regional, and even national, economic inequalities are large and where the schemes involve countries at different stages of transition towards market economy. Countries are trying to seek and keep their national identities at the same time as they are expected to actively participate in various forms of regional cooperation in order to meet the challenges and opportunities of globalization and to reduce regional inequalities. This process is also a balance between powerful economic forces outside the region and larger and more developed neighbors within the regional integration schemes.

This is of particular importance for the smallest, poorest and weakest partners in the integration process. Therefore, the smallest and weakest partners are often countries with low levels of domestic integration and ongoing transition processes where the development of the market economy is still incomplete. Geographical factors such as scattered location of urban centers, large distance to markets for remote villages, and low levels of road accessibility for parts of the country naturally have a significant impact on the level of market integration. Access to both soft and hard infrastructure in the forms of transportation and markets are therefore crucial elements of regional as well as domestic integration.

1.2 Research Objective

The purpose of the research project is twofold. Firstly, in spite of the existence of a large number of theoretical contributions on regionalization and integration, there seems to be a weak understanding of how these issues play out in developing countries, where domestic market integration is an additional challenge. In particular, there is no

consensus about how to measure the degree of market integration within a country. The dissertation therefore intends to go beyond traditional integration theory and examines various alternative approaches to market integration by using Lao PDR as an empirical case. Accordingly, theories originating within economics, economic geography, transport economics and logistics will be drawn upon.

Secondly, the dissertation focuses on the market integration process by surveying the spatial price patterns of a homogenous retail product and exploring some of the various market characteristics that determine pricing, the primary one of which is domestic freight rates in a developing country context. The efficiency of the freight sector is one critical component for the successful integration of the local economy into regional and global markets (Banomyong *et al* 2008; Dicken 2003; Goh & Ang 2000; van de Vooren 2004). The performance of the national logistics system is an important facilitator for the export and import trade, but also for domestic distribution (Sadoulet & de Janvry 1995) as the demand for freight transport can be derived from a demand for the goods that are transported (Hesse & Rodrigue 2004).

The main objective of the dissertation is to find determinants for the differences in prices between locations and to quantify the importance of freight tariffs for the final price of the homogenous retail product. Hence, an explorative quantitative research approach will be applied. The main focus will be on the national market for domestic freight services and the spatial price pattern of a homogenous retail product. A conceptual and theoretical framework will be constructed, key actors at different geographical levels will be identified and their roles within the national system for freight will be described. An empirical modeling of the spatial price patterns and freight rates will be developed and tested based on data collected from the private sector.

1.3 Research Problem

The theoretical and methodological frameworks from which to approach the research problem are not straightforward. In order to focus more distinctly on a few

aspects within the larger complex context, the approach here will use domestic market integration as the operative representation of the broader process of integration. It is important to bear in mind that aspects of both economic and political integration both within a country and between countries where regional integration is promoted are closely related and influence the countries' domestic geographical and administrative levels in different ways. Furthermore, the research focuses on the spatial patterns of the price of a homogenous retail product at different locations in the country and its relation to freight transport thus giving primary importance to the performance and efficiency of the freight transport sector.

The research questions are partly of a context specific character, and with focus on the spatial price pattern and the freight transport sector's determination of freight tariffs. However, limited research has been undertaken with regard to the efficiency of the transport service sector and its influence on the degree of market integration in least developed countries. Hence, the broad research question can be formulated as follows:

What factors influence the spatial price patterns of a homogenous retail product in Lao PDR and how do these patterns influence the degree of market integration?

The research focuses on identifying factors influencing differences in price levels based on price data for a homogenous retail product. The characteristics of the product are unique with only a single factory, marketed and available all over the country under a strict regulated distribution network: together with a study of the domestic freight service sector, this provides valuable insights to how the process of market integration in Lao PDR functions.

1.4 Research Questions

In order to operationalize the research problem, four specifying research questions dealing with the process of market integration in Lao PDR have been formulated to help better answer the main research question.

1. Who are the main actors in the domestic freight transport service sector in Lao PDR, on which administrative and spatial levels do they operate?

The main objective of the freight transport service sector is to overcome the friction of distance and provide efficient transport services from one geographical location to another. The level of interconnectivity within the transport system is not only dependent on road access and the quality of the physical transport infrastructure but also on the market for freight transport services and the overall demand of freight services from the economy.

A central issue for the present context is the constraints created as a consequence of low levels of quality of the national transport infrastructure. This is an important reason for the traditionally fragmented structure of the national freight transport system. The fragmentation gives importance to local freight service operators and their ability to supply efficient transport services at different spatial levels. The level of coordination and/or competition between freight operators acting at different spatial levels will be studied in detail.

2. How are freight tariffs for domestic freight transport services determined with reference to the geography and regional development of the country?

Initiatives mainly related to transport infrastructure construction have been promoted by the government in order to achieve better connectivity and to provide access to markets, whereas less attention has been given to how the market for freight service influences the transport costs. Calculation of tariffs for freight services is not only dependent on actual distance transported, quality of the roads and the weight of the product, but the structure of the market is also an important determinant. Therefore, it is important to identify factors influencing the determination of freight tariffs at different spatial and administrative levels i.e. national, province, district and village levels. This will provide knowledge about the relationship between road construction and the development of a better integrated national market system and will be analyzed in Chapter 5.

3. *How does the spatial price pattern of the studied homogenous retail product correspond to the costs of freight services to the provincial centers, and which other factors apart from freight tariffs influence the margin between the final price and the freight transport service cost between the national capital Vientiane and the provincial centers ?*

A simplistic view suggest that price differences are dependent on transport costs, but the variation in the pricing pattern is actually substantially larger than the variation in transport costs. The dissertation intend to quantify the margin between the final price and the freight service costs, and relate it to a set of variables collected from the theoretical framework. It is hypothesized that the spatial pattern of price-cost margins will reveal important information about the degree of market integration between the capital and the provincial centers. This research question will mainly be dealt with in Chapter 5.

4. *Which factors specific to the characteristics of villages influence the final price of the homogenous retail product when sold at village level?*

The degree of market integration has strong implications on people's livelihood, as a growing share of the Lao population participates in the local economy by for example selling locally produced products and buying input goods used in the household's agricultural production. By identifying village specific characteristics that influence the final price at the village level, it may be possible to forecast the transmission of price fluctuation stemming not only from events in the national economy but also global developments, like increasing fuel prices.

The research questions follow the sequence of the research conducted; a. understanding the context for freight services, b. developing a model where the relationship between spatial price patterns and freight tariffs are studied, and lastly c. testing and analyzing the empirical data collected.

1.5 Research Methodology

Methodological questions deal with how the researchers choose to define and solve problems by initially choosing different ways of understanding, explaining and predicting the reality of the research object (Arbnor & Bjerke 1997).

1.5.1 Research Approaches

Every academic discipline aims to create new or modify existing theories. Theory development can follow different approaches. Nesher (1999) argues that all three research approaches – deduction, induction and abduction – need to be present in every discipline. To be able to perform an investigation with the purpose to describe and make predictions certain assumptions about reality have to be made. Arbnor & Bjerke (1994), describe three different approaches applicable in business and administration research: the analytical approach, the system approach, and the actor's approach.

This dissertation is based on an analytical approach where the researcher assumes that objective models of reality can be constructed, and where the research objects can be divided and studied at individual levels. The relationships between the different levels of analysis can be built together within a model. Relationships between studied objects in a model are driven by causality. The analytical approach provides conceptual tools that are used for measurement in cases where quantitative methods can be applied (Arbnor & Bjerke 1994; Arbnor & Bjerke 1997).

The dominance of the deductive research is much discussed in logistics research but to a less extent in economics or economic geography (Arbnor & Bjerke 1997; Flint & Mentzer 2000; Mentzer & Flint 1997). The fundamental understanding of the research approach is of importance when developing the path along which the specific research is conducted. Logistics researchers often make the connection between positivism and the use of the deductive research approach (Näslund 2002, Mentzer & Kahn 1995). Deductive research follows the path from theoretical advances to their empirical testing, from general law to a specific case (Alveson & Sköldberg 1994; Johnson 1996); from

rule to case to end of the result (Danermark 2001). Hence, deductive research follows a sequence where the research process start from an established theory or generalization and proceeds to testing whether this generalization applies to the specific empirical setting (Hyde 2000) and fits well with the fundamentals of the analytical research approach.

The research conducted in this dissertation can be characterized as deductive, using an analytical research approach. The aim of the research is to identify factors influencing the degree of domestic market integration by using relevant theories, constructing a model for domestic market integration based on the theoretical framework and the contextual study of the freight service sector in Lao PDR, collecting data on freight tariffs and prices of a homogenous retail product, and testing the empirical model in order to draw conclusions from the pattern of market integration in Lao PDR.

1.6 Structure of the Dissertation

The plan of the dissertation is influenced by the definition of integration in terms of finding the rationale to how economic integration between different locations functions. This dissertation consists of eight chapters.

Chapter 1 introduces the purpose of the research, discusses research questions and research objectives, and provides the organization of the dissertation.

Chapter 2 focuses its attention on the relation between trade and regional integration. It presents the neoclassical and the modern views on regional integration with a focus on identification of how transport infrastructure influences trade between regions. The chapter also discusses the difference between market integration and market efficiency. An in-depth survey of transport costs and factors determining transport costs are conducted in order to link regional integration theory with transport economics. Lastly, the chapter highlights the importance of the market characteristics of the freight transportation sector. Concepts like economies of scale, imperfect competition, and

competitiveness are identified as highly relevant when the effects of reduced transport costs in a fragmented national market like Lao PDR are studied.

Chapter 3 discusses the research methodology used in the dissertation. The chapter comment on the methodological foundations and the overall research design. The complexity of the issues studied in this dissertation requires an explorative quantitative research approach.

Chapter 4 describes and analysis regional growth patterns in Lao PDR. The purpose of this chapter is to provide a clear overview of the regional development of Lao PDR during the period 1992 to 2003 by using household survey data. Although the surveys do not include data on provincial or regional GDP, the surveys provide detailed data on consumption expenditure, which are used to proxy regional living standards and development levels. The comprehensive analysis presents the regional development as fragmented with large regional differences in the growth of consumption.

The main purpose of Chapter 5 is to highlight the interacting factors behind differences in tariffs for freight transport between Vientiane and the provincial centers in order to provide answers on research questions number 1 and 2. The structure of the freight system is studied where main actors are identified in order to provide an overview of how the interregional freight service sector functions. The main focus of the chapter is an attempt to analyze the national market freight by identifying and estimating the determinants of freight rates based on the theoretical discussion presented in Chapter 2.

Chapter 6 studies the integration of the domestic market in Lao PRD by using data collected at the village level and seeks to provide answers to research questions 3 and 4. The chapter examines the spatial variation in the price of a homogenous retail product and its relationship with geographical variables having an impact on transport costs such as location and distance to markets, as well as variables intended to capture factors like economies of scale, imperfect competition, and competitiveness: the exercise is carried out using multiple regression analysis.

Chapter 7 introduces a different geographical and administrative level of analysis by using Lao PDR's geographical location bordering China as a factor influencing the degree of domestic market integration in Lao PDR. As this chapter illustrates, trade with China has contributed significantly to the economic development of Lao PDR, but the Chinese influence has looked different in different parts of the country, thus illustrating the geographical patterns of integration with China.

Chapters 5 and 6 focus entirely on the domestic aspects of market integration and various internal factors influencing the degree of market integration. The geographical level of analysis in Chapter 5 is the national market for freight with special emphasis on freight transport and costs of moving goods between Vientiane and the provincial centers. Chapter 6 focuses on the village level as the main geographical unit of analysis. However, Chapter 7 highlights the fragmented and unevenly distributed growth of expenditure in Lao PDR and identifies a regional north – south pattern in growth and development. The particular features of the Lao market mean that the experiences of northern and southern Lao PDR can be used to illustrate two kinds of trade relations with China. The northern part of the country has had ample opportunities to engage in border trade in a wide variety of products, thanks to relatively low entry barriers in terms of transport and transactions costs. Southern Lao PDR, by contrast, has faced higher costs in its trade with China, which has limited the range of products that can be exported and imported. If the first of these cases is described as “integration”, the second one illustrates “internationalization” and its impact on the “domestic integration”.

Chapter 8 summarizes the results of the study and presents some conclusions on the nature of market integration in Lao PDR.

Figure 1.1 illustrates the simplified sequence of the research conducted in the dissertation (a more detailed overview of the research process is provided in Chapter 3).

Figure 1.1 Sequence of the Research Conducted in the Dissertation

