

Ngo, Ngoc Thai Hong (2013) Technology adoption in rent seeking economies: the case of Vietnam. PhD Thesis. SOAS, University of London

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# **Technology Adoption in Rent Seeking Economies: The Case of Vietnam**

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Thesis submitted for the degree of PhD in Economics

**2013**

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## Abstract

Although Vietnam has achieved high rates of economic growth over two decades and attained middle-income status in 2008, much of the country's economic structural changes do not appear to address its underlying political conflicts, pervasive market failures, or speculative investment activities, and increasingly robust global competition. In assessing Vietnam's industrial failures and successes, this research project starts by asking: What are the key political and institutional processes that shaped the structure of incentives and pressure for technological adoption and capability-building in the Vietnamese industrial sector since the country's economic 1986 reform known as Doi Moi? This thesis uses the current literature on rents and rents-seeking to develop a new analytical framework that I call developmental rent management analysis (DRMA), which examines Vietnam's industrial transformation in the telecommunications, textile and garment, and motorcycle industries. The empirical evidence for this study is primarily based on 68 semi-structured interviews with government officials, firm managers, workers, and industry experts.

My investigation provides a new and nuanced analysis of the development of Vietnam's industrial sector. On the one hand, the textile and garment industry provides a unique case of limited industrial progress, which is based largely on Vietnam's low-paid and low-skilled workforce. On the other hand, the telecom industry offers insights to the making of a successful industrialised sector. This success can be explained partly by a long period of protection by the government, effective rents management, and credible threats of foreign competition. The motorcycle industry, in contrast to both industries, imparts a distinct example of the Vietnamese government's failure to implement learning rents for technological upgrading. However, market competition among Japanese and Chinese manufacturers led to significant technical learning and capability-building for local firms.

Although there was not one fixed successful configuration of rent management that worked in all three industries, a successful synthesis comprises a cluster of factors including, although not exclusive to (1) the political will and/or competition among political and economic interests that support the formal and informal development of the sectors, (2) effective formal and informal institutional structures of rent allocation and implementation, (3) incentives for profits and pressure from market competition, (4) effective time horizon and (5) the initial capability of firms and workers to be receptive to learning new technologies and skills, and gaining expertise. The findings of this research shed light on the types of rent strategies that are beneficial to further Vietnam's development.

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## ACRONYMS AND ABBREVIATIONS

AGTEK	Association for Garment Textile Embroidery Knitting
ASEAN	Association of Southeast Asian Nations
BCC	Business Corporation Contract
BTA	Bilateral Trade Agreement
BTS	Base Transceiver Station
CBU	Completely Built Unit
CDMA	Code Division Multiple Access
CKD	Complete Knockdown
CMT	Cut, Make and Trim
CPV	Communist Party of Vietnam
DRMA	Developmental Rent Management Analysis
DRMS	Developmental Rent Management Strategy
EVN	Electricity of Vietnam Telecom
FDI	Foreign Direct Investment
FOB	Free on Board
GC	General Corporation
GDP	Gross Domestic Product
GSM	Global System for Mobile Communication
IT	Information Technology
LAO	Limited Access Order
MFA	Multi Fibre Agreement
MIC	Ministry of Information and Communications
MNC	Multinational Corporation
MOIT	Ministry of Industry and Trade
MVNO	Mobile Virtual Network Operator
NTR	Normal Trade Relation
PTT	Postal Telephone and Telegraph System
QCD	Quality, Cost, and Delivery
R&D	Research and Development
RMM	Rent Management Mechanism
SEG	State Economic Groups
SOE	State-owned Enterprise
TFP	Total Factor Productivity
USB	Universal Serial Bus
USD	U.S. Dollar
VINATEX	Vietnam National Textile and Garment Group
VITAS	Vietnam Textile and Apparel Association
VND	Vietnamese Dong
VNPT	General Company of Posts and Telecommunications
WTO	World Trade Organization

**1 USD = 20, 700 Vietnamese Dong (VND)**

## Acknowledgement

Many people have played instrumental roles in enabling me to write this thesis. In particular, I would like to acknowledge the remarkable guidance and support I received from Professor Mushtaq Khan, who has been an insightful advisor and a generous teacher over the course of my study at the School of Oriental and African Studies (SOAS). In addition, Professor Alfredo Saad Filho and Professor Ben Fine provided immeasurable advice and support throughout the course of this Ph.D. research. These three professors influenced me a great deal by their dedication and passion towards development economics. I also want to thank Professor William Scheela, Dr. Jago Penrose, Professor Ca N. Tran, Dr. Matthew McCartney, Dr. Satoshi Miyamura, and Dr. Abdul-gafaru Abdulai for their valuable comments on earlier drafts of this thesis.

I would also like to express my gratitude to all the people and institutions that helped me, in one way or another, undertake my fieldwork research in Vietnam. I would like to thank all the firms, institutions, and individuals that I interviewed for their patience and for offering their precious time to a project that I hope will prove useful. I would like to thank Dr. Thanh Nguyen and his colleagues at the Vietnam Centre for Economic and Policy Research for allowing me to participate in their work and activities as a research associate. In addition, I would like to thank Professor Kenichi Ohno at the Vietnam Development Forum and Dr. Quang Doan at the World Bank Vietnam for their valuable insights and encouragement. My fieldwork in Vietnam was made possible partly by the funding that I received from the Fieldwork Research Award of the SOAS.

Finally, I would like to thank all of my family and friends in the United States, Vietnam and Europe for their patience, understanding, and unequivocal support over the years. In particular, I thank Michael Lachenmann for his unqualified support and timely guidance in resolving numerous technical issues related to Microsoft Word. By the same token, a very special thanks goes to my mother, Huong, who has stood behind me unconditionally every step along the way. Above all, I would like to express my heartfelt appreciation to my father, Thuan, who always encouraged me to continue learning and to pursue my ambitions and dreams. He has been an enduring source of inspiration and admiration. This thesis is dedicated to him.

## Chapter 1. **Rent Management as Development**

### **1.1. Technological Adoption in Rent-Seeking Economies**

The literature on rents and rent-seeking tends to narrowly depict these phenomena as inherently bad and growth-reducing (Buchanan, Tollison, & Tullock, 1980; Krueger, 1998; Posner, 1975; Tullock, 1967), with rarely any attention to the potential of these phenomena to contribute to positive developmental outcomes. More problematic is the claim, which is widely spread by donor agencies, that development failures in poor countries are due to the pervasive nature of rents and rent-seeking (Coolidge & Rose-Ackerman, 1999; Mauro, 1997). For example, donors' conditionalities in many poor countries are often meant to curb rents and rent-seeking on grounds that they necessarily undermine development outcomes.

One country where that last argument has been advanced is Vietnam. Vietnamese experts and specialist frequently attribute Vietnam's development challenges to rents and rent-seeking. The warning from World Bank 2003 Development Report is representative:

[Vietnam] may fail to remove the obstacles in its reform path, let the vested interests capture government transfers to offset their inefficiencies, and see an unhealthy relationship develop between enterprises. . .and government officials. A weak macroeconomic situation, slower growth, increased inequality and generalised corruption could be the outcomes (World Bank, 2002, p. 4).

Nonetheless, an emerging body of literature is beginning to challenge this narrow neoclassical analysis on rents and rent-seeking. Research on the topic by institutional

economists such as Khan and Jomo (2000b), North et. al. (2007), Chang and Cheema (2002), and Booth and Golooba-Mutebi (2012) provide evidences and insights that certain type of rents can be value-enhancing and rent seeking can produce good outcomes. “In a world where learning and innovation have to be rewarded, distributive conflicts dealt with, where incentives have to be created to deal with asymmetric information and where scarce natural resources have to be conserved, many types of rents are socially desirable” (Khan & Jomo, 2000a, p. 8). An illustrative example of this emerging thought is the Africa Power and Politics Programme, which introduced the concept of “developmental patrimonialism” (Booth & Golooba-Mutebi, 2012, p. 1). In the case study of Rwanda, research from this programme asserts that:

The interest and ability of the ruling elite to impose a centralised management of the rents which are an unavoidable feature of early capitalism...have provided Rwanda with the “early-stage venture capitalism” it needed to achieve economic recovery post-1994 and to maintain respectable rates of investment and socio-economic progress under otherwise unfavourable conditions during the last decade (Booth & Golooba-Mutebi, 2012, p. 1).

As rent and rent-seeking may be socially desirable and value-enhancing, Khan (2009b) suggests that a more general approach to utilize them is to incorporate political and institutional variables to explain, first, the types of rights and rents which are created as a result of rent-seeking and, second, the configuration of how this new rent creates the incentives and pressure to increase firms’ and workers’ effort to develop. This thesis is situated within this emerging literature. It argues that rents are better understood as a policy instrument that could either be damaging or developmental depending on the rent

management mechanism (RMM), which is defined as the configuration of politics, institutions, and industry organisation<sup>1</sup> that produce the rent outcomes. I employed these insights to construct the developmental rent management analysis (DRMA) framework (see Chapter 3).

Economic and industrial development can largely be viewed as a process of technological “catch up,” in which firms in developing countries learn to master new technologies of production already in use in more advanced economies. From this perspective, this thesis focuses largely on the political and economic relationship between the Vietnamese state and its industrial sector,<sup>2</sup> prefacing the economic growth in a development context. This reveals how rents may be actively used to enhance growth via technological adoption and capability-building in the Vietnamese experience. These findings underscore the need to re-examine how economic actors and the state collaborate through formal and informal institutions to boost industrial upgrading in developing countries. This study of rent and rent management adds to the emerging scholarship that examine how rents may be used for growth-enhancing and developmental purposes in the context of a one-party state in Vietnam: the Communist Party of Vietnam (CPV).

## **1.2. The Case of Vietnam**

Vietnam is not a hidden Asian Tiger.<sup>3</sup> Recent economic crises, starting in 2007,

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<sup>1</sup> In this thesis, industry organisation is defined as the structure of market competition and internal organization of firms affecting responses to different types of rents.

<sup>2</sup> This thesis defines the industrial sector broadly to include all modern productive activities.

<sup>3</sup> The Asian Tigers is a term used in reference to the highly developed economies of Taiwan, South Korea, Singapore, and Hong Kong. These nations and areas were notable

have revealed and challenged the Vietnamese state's "market economy with socialist orientation" approach to economic reform. By late 2012 the Vietnamese economy was dealing with a gathering storm of high inflation, endemic corruption, and a largely unproductive state-owned sector. The country's banking system was saddled with the highest bad debt in Southeast Asia as it maintains the highest percentage of nonperforming loans among the ten countries in the region (Manthorpe, 2012). Bad debts had nearly doubled, amounting to approximately 10 per cent of total lending, of which half of this bad debt was said to be unrecoverable (Tran, 2012c). Meanwhile, public discontent over inflation, disparities between rich and poor, and declining living standards raised concerns for surging political stability (Manthorpe, 2012).

In October 2012, major political turmoil took place behind the closed doors of the Central Party Committee's Sixth Meeting, where lines of division between the economic power, represented by Prime Minister Dung Tan Nguyen, and the political power, represented by Party Secretary Trong Phu Nguyen (with support of President Sang Tan Truong) were evident. During this important meeting, Dung's leading position as the prime minister was reconsidered among the 175-committee members, and options for corrective economic measures were weighed against the interest of various factions within and around the Party. Nevertheless, economists and experts could only stand quietly on the side-lines watching the unfolding power struggle. This lack of action and advocacy is partly due to an incomplete understanding of the Vietnamese political economy that rapidly transformed over the last two and a half decades. More importantly, neoclassical tools reflected in the Washington and Post-Washington Consensus<sup>4</sup> could

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for maintaining exceptionally high growth rates (in excess of 7 per cent a year) and rapid industrialisation between the early 1960s and 1990s.

<sup>4</sup> The World Health Organization (2013) describes the Washington Consensus as "the set of 10 policies that the US government and the international financial institutions based in the US capital believed were necessary elements of 'first stage policy reform' that all

not adequately address many of the political economy issues that had emerged and endangered Vietnam's economic development.

The Vietnamese experience is valuable for understanding the political economy of development, including its rent and rent-seeking dimensions, for two reasons. First, as a transitional economy, Vietnam faced a number of constraints and externalities during its growth process. Consequently, understanding how Vietnam handles these restraints to transform itself from a low-income developing to a middle-income country provides important lessons for other poor countries that embark on similar developmental path.

Second, so far debates on Vietnam's industrial development have focused largely on improving its transparency and enhancing its trade openness, privatisation (known as equitization in Vietnam), and market liberalisation. However, given the ubiquitous and dominant existence of rents and rent-seeking in Vietnam, little attention has been paid to understand how rents and rent-seeking enhanced or impeded development, especially from industrial upgrading and learning perspectives. This research seeks to bridge this gap by examining Vietnam's industrialisation and development from a political economy perspective of rent and rent-seeking: how these phenomena took place, and how, under their influence, the roles of politics and institutions have shaped the path of development in the industrial sector. Addressing these issues requires identification of the bottlenecks that constrain the industrial sector and an examination of the how rent and rent-seeking operate in response to the macro-political and institutional order in the Vietnamese context.

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countries should adopt to increase economic growth". At its heart is an emphasis on the importance of macroeconomic stability and integration into the international economy... The framework included ... fiscal discipline, financial liberalization, trade liberalization, deregulation, secure intellectual property rights, increasing foreign direct investment by reducing barriers, and privatization (World Health Organization, 2013).

### **1.3. Research Approach**

#### **1.3.1. Thesis Threefold Aim and Research Question**

The overall purpose of this research is threefold. First, it seeks to provide empirical evidence to support an alternative view on rents and rent-seeking: how rent, as an outcome, can be developmental and growth-enhancing under the right configuration of rent management. The second objective is to improve the understanding of how different rent management mechanisms affect the structure of incentives and pressure that ensure firms' and worker's effort for technical learning, upgrading, and innovation in a developing country context. This was accomplished by examining the rents management mechanisms that support or deter Vietnamese industries and firms from upgrading by taking into account the configuration of politics, institutions, and industry organisation. Finally, the research aims to examine factors shaping technological adoption in the Vietnamese industrial sector focusing on the telecommunication, textile and garment, and motorcycle industries. With these general aims in mind, the research undertaken for this thesis was structured along the following main research question:

What are the key political and institutional processes that shape the structure of incentives and pressures for technological adoption and capability-building in the Vietnamese industrial sector since the country's economic reform known as Doi Moi in 1986?

#### **1.3.2. Analytical Approach**

To address these research objectives and question, this thesis combines a variety of methodological approaches. It first starts by presenting a literature review of the theoretical debates on technological adoption, rent, and rent-seeking in a development context. A number of issues, such as learning externalities, politics, and informal institutions that are particularly relevant to answer the research question, are discussed. This review includes both the neoclassical and the alternative literature.

The second key element is the analytical framework. Based on insights provided from the alternative literature on rent and rent-seeking, this thesis develops a developmental rent management analysis (DRMA) framework to examine the factors that affect the process of technological upgrading and capability-building in the face of Vietnam's political economy of being a one-party state. The DRMA framework is based on a fundamental assertion that no one combination of political and institutional arrangement provides exclusive access to successful rent management and developmental outcomes. Successful rent management strategies must be specific to the political and institutional contexts of a country and its political economy. Analytically, DRMA provides an approach that assesses how rents are created, destroyed, contested, and reallocated, and how rent-seeking can influence development outcomes in a developing country.

More specifically, DRMA utilises four analytical steps. The first step identifies the type of rent involved in a particular industry. The second step establishes the potential incentives and effects of the rent, given the existing political and institutional structures. The third step analyses the configuration of politics, institutions, and industry organisations that shape rent outcomes. This step is named *configuration of rent management*. This thesis also refers to this configuration as *rent management mechanism* (RMM). Here, the discussion involves the most substantive analysis of the DRMA

framework. It inquires into the political, institutional, and industry organisations and how they interact to generate incentives and pressure for high or low performance in technological adoption and capability-building. The fourth step reviews the transformation of firms and industries and actual rent outcomes in relation to this configuration of rent management.

As for the last analytical approach, this thesis employs inductive approach by utilising the DRMA framework to assess in-depth how the process of technical learning and capability-building is structured and achieved (or not) in Vietnam and how such a process was instrumental in Vietnam's industrial development. Three important industries are the subject of this analysis: the telecommunications, textile and garment, and motorcycle industries. The analysis employs qualitative techniques to gather evidence and to analyse eight case studies, examining in depth the rent management mechanisms that were conducive or inhibitive to development in these industries.

### **1.3.3. Methodological Approach**

The empirical research on the Vietnamese industrial experience is based on data collected during three fieldwork sessions, which total an 8-months period: December 2010, April–October 2011, and June 2012. The fieldwork yielded 68 semi-structured interviews, each lasting between one and three hours. Being fluent in Vietnamese, I had significant and prolific access to numerous government official documents and newspapers that are not available to English-speaking audiences. In addition, this research benefited from the author's consultancy experience in Vietnam working for the World Bank in September 2011 and for the Ministry of Planning and Investment from October 2011 to April 2012. Together, these experiences provided invaluable insights

into the World Bank's agenda to promote Vietnam's development, as well as the Vietnamese policy-making process and institutional settings of the CPV. This latter insight is one of the three central elements of the rent management analysis presented in the DRMA framework.

My interviews with managers, and workers in public, private, and foreign firms bring into focus the various constraints in firms' upgrading efforts and how technological adoption and learning takes place. In addition, interviews with a number of Vietnamese high-profile government officials and industry experts enhanced my understanding of the Vietnamese institutional structure, the internal political and economic arrangements among various interest groups, as well as the recent power struggles within the Vietnamese key state apparatus. Through networking, I also collected numerous secondary data from government offices, international organisations, and research think tanks. From this large database, I developed and analysed eight case studies of industrial development in the telecommunications, textile and garment, and motorcycle industries.

Finally, it is important to note that observations and policy options suggested in each industry may not be applicable to others. In addition, given that this research centres exclusively on Vietnam, research findings may not be generalizable to all developing economies due to varied historical, cultural, political, and economic contexts. For example, the fact that Vietnam is a one-party state may imply that it would exhibit different political and economic dynamics when compared to other Southeast Asian countries with multiparty polities.

#### **1.3.4. Original Contribution of the Thesis**

This thesis makes three distinct original contributions to the literature. First, it highlights the limitations of neoclassical arguments in understanding the development trajectories of transitional economies and low developing countries. It rejects the “state versus market” debate as an analytical starting point, with the presumption that developmental prospects depend upon either the free functioning of the market or upon an embedded, and autonomous state. I argue that actions and interaction of the state, the firms, and the market are determined by economic, political, and ideological interests, which seek rents for their own benefits. As a result, this thesis argues that the neoclassical literature misreads and overlooks crucial political and institutional factors, including informal mechanisms that are critical in understanding the dynamic economic transformations in developing countries.

Second, I put forward an alternative analytical framework—the DRMA framework—to evaluate the configuration of politics, institutions, and industry organisations using the concepts of rents and rents management. This analytical framework provides insights into the types of rent management mechanisms that may build Vietnam’s competitiveness based on its configuration of the political, institutional, and industry conditions.

Third, to understand the rent management mechanisms that drove the process of technological upgrading and capability-building, my research analyses the three selected industries mentioned above: telecommunications, textile and garment, and motorcycle. These industries were selected based on the diverse levels of technological upgrading that they achieved. On the one hand, the textile and garment industry provides a unique case of limited industrial progress, which is based largely on Vietnam’s low-paid and low-skilled workforce. On the other hand, the telecom industry offers insights to the making of a successful industrialised sector. Finally, the motorcycle industry imparts a

distinct example of how market competition among Japanese and Chinese manufacturers led to significant technical learning and capability-building for local firms. Nonetheless, technical progress in this industry was held back due to a number of coordinated problems in policy and implementation.

The analysis identifies externalities in each industries and the configuration of rent management that affects the structure of incentives and pressure, which in turn motivate technical learning, upgrading, and innovation in Vietnam. By doing this, this thesis observes the transformation that this configuration induced in rents recipients at the firm and industry levels.

On the whole, my analysis suggests, first, that Vietnam has experienced uneven growth due to a mixture of ad-hoc rent policies and rent seeking activities. Second, some learning and technological upgrading took place despite being extremely inconsistent across sectors and firms, owing to the internal political arrangement among the state's interests. Third, the state sector, including some powerful state-owned enterprises (SOEs), plays a dominant role in rent-seeking and rent distribution. This sector will continue to exert its power over the state and the economy. Fourth, the private sector, which initially did not get significant rents, has thus far achieved some industrial upgrading, though it is limited in the face of the government's SOE-centric agenda. Finally, by late 2012, the Vietnamese political arrangement had become increasingly volatile and appeared to be unfavourable for the country's growth process. These observations impart a critical understanding to formulate practical and developmental rent management strategies as Vietnam attempts to move to the next stage of development.

#### **1.4. Vietnam's Economic Development 1986–2012: A Brief Overview**

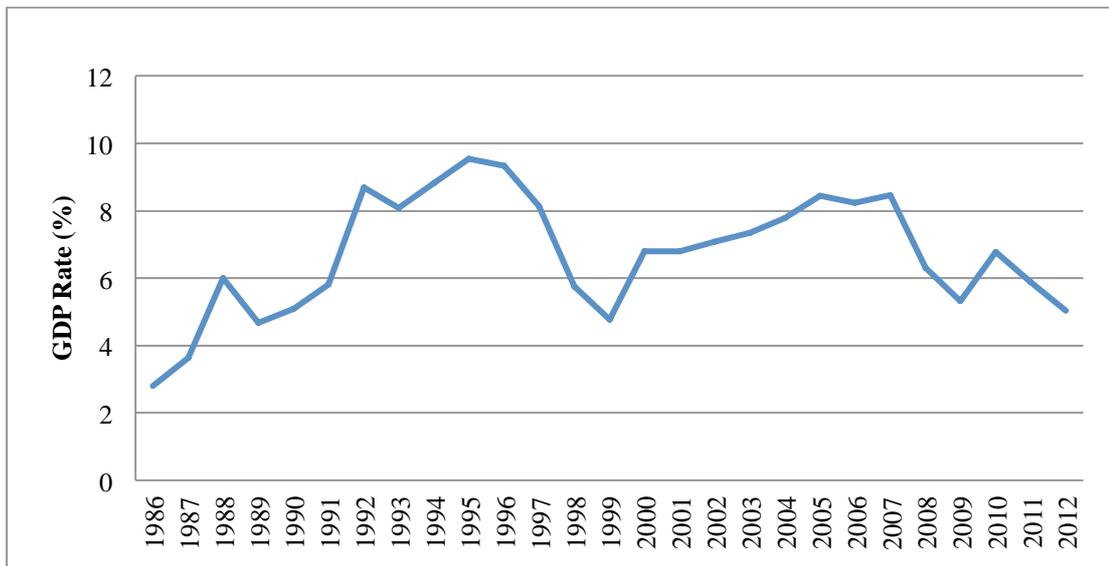
The collapse of the centrally planned model after reunification of North Vietnam and South Vietnam in 1975 forced the country eventually to undertake economic reforms known as Doi Moi. The first significant reform occurred in 1986, followed by an even greater and more radical market-oriented reform in 1989, which marked a turning point in the history of Vietnam's economic development. Together, these two reforms transformed the Vietnamese economy from a centrally planned one into a “market economy with a socialist orientation.” That is, while the private sector is now allowed to participate in a variety of economic activities, the public sector remains in charge of commissioning social and economic programmes instituted by the state. Consistently, the public sector has been the instrument for the state and the CPV to regulate the Vietnamese economy (Doan, 2012a; Masina, 2006, p. 123).

In the last two and a half decades, the Vietnamese government has employed policies with extensive investment and credit expansion for a protracted period to achieve high gross domestic product (GDP), especially in the 1990s and 2000s. During this period, Vietnam gained access to the World Trade Organization (WTO) in 2007 and signed bilateral trade agreements (BTAs) with a number of strategic trade partners such as the United States, the European Union, Japan, and several Southeast Asian countries. Before the global recession in 2008, Vietnam experienced a high growth rate, averaging 6.91 per cent between 1986 and 2007 (see Figure 1.1). However, starting in 2008 the Vietnamese economy entered a new phase of development and experienced a number of structural problems while the global economy was falling fast into a deep recession. This next section briefly highlights important issues of Vietnam's economic development before and after the economy experienced a major slowdown in 2008.

### 1.4.1. Development Overview from 1986

In 2012 Vietnam's population numbered 91.51 million people and had a population growth rate at 1.054 (CIA World FactBook, 2013a). Based on the CIA World Factbook (2013b), the gross domestic income per capita on a purchasing power parity basis was \$3,500, making Vietnam a middle-income country. Since the start of its economic reform in 1986, the country's average GDP has been phenomenal. Figure 1.1 illustrates the country's growth rate during this period. It shows that while GDP rate fluctuates, it remains positive and high for a large part of the 25-year period. As mentioned, in 2008 the Vietnamese economy experienced a slow down, as did the global economy, except for the year 2010 when Vietnam's stimulus package was put into effect.

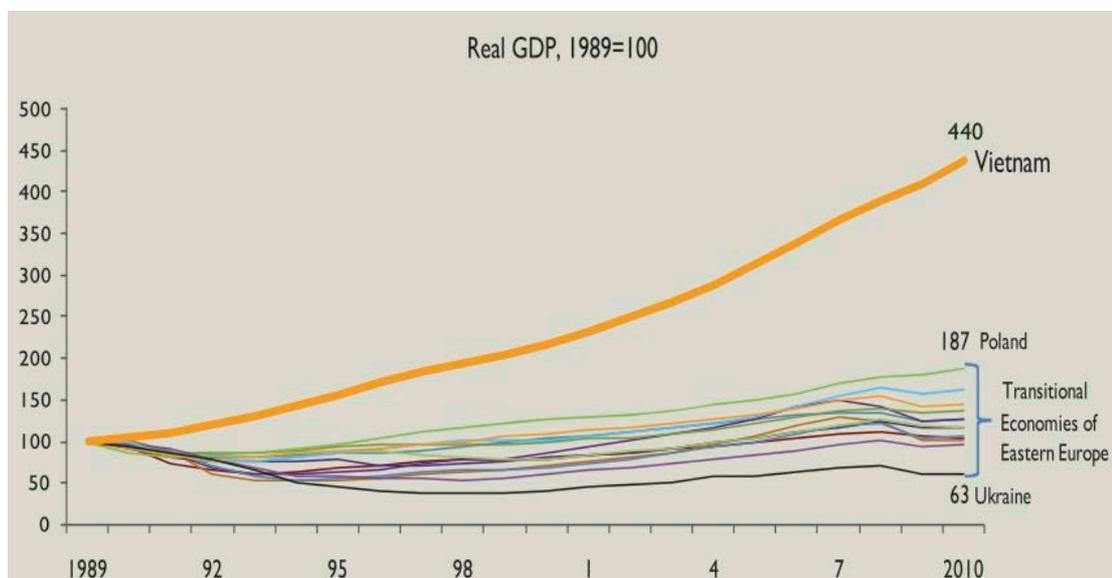
**Figure 1.1: Growth Rate 1986–2012 (in per cent)**



*Source:* Author's compilation based on data from Nguyen et al., (2010) and the World Bank (2013)

Figure 1.2 compares Vietnam's output performance with transitional economies in Eastern Europe between 1989 and 2010. The vertical axis quantifies output performance of a number of surveyed countries; 1989 is the base year and is given 100 points. The horizontal axis represents the corresponding years surveyed. The figure shows that Vietnam's performance in output growth outperformed Eastern European countries, which were also once also under a centrally planned economy.

**Figure 1.2: Vietnam's Output Performance Relative to Other Transitional Economies**

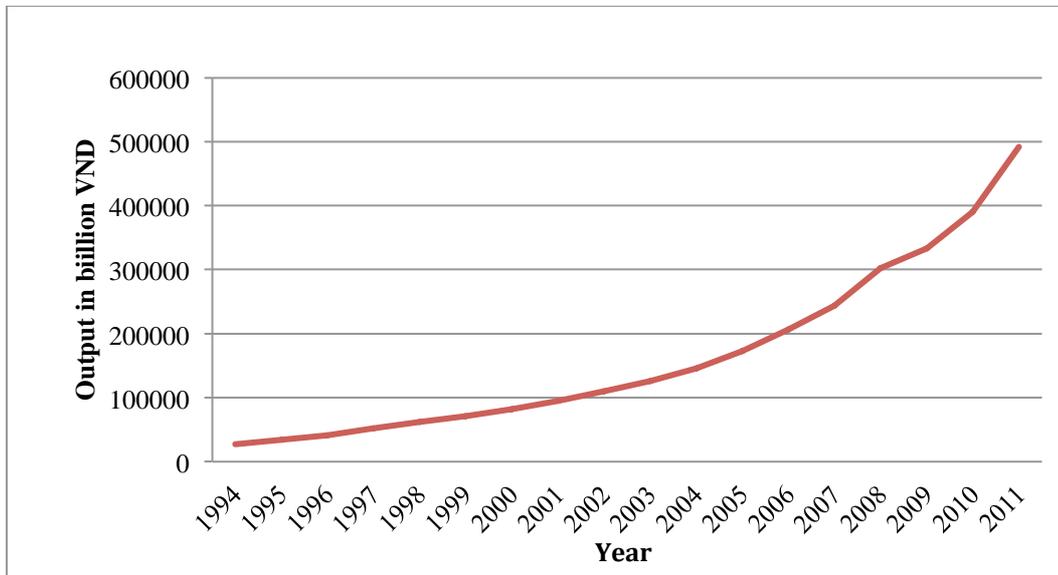


Source: World Bank (2012b, p. 12)

Parallel with the rapid growth rate in GDP, Vietnam's manufacturing sector dramatically increased its output over the same period. Figure 1.3 shows that manufacturing output rose from VND 26,624 billion (USD 1.25 billion) in 1994 to VND 491,777 billion (USD 23.2 billion), an 18.47 times increase. However, the slowdown that started in 2008 was felt most acutely in the industrial sector, causing great concern over the country's long-term growth. This is because the industrial sector has been the

backbone of Vietnam’s competitiveness and development thus far, employing around 7 million people, or one-tenth of the Vietnamese labour force.

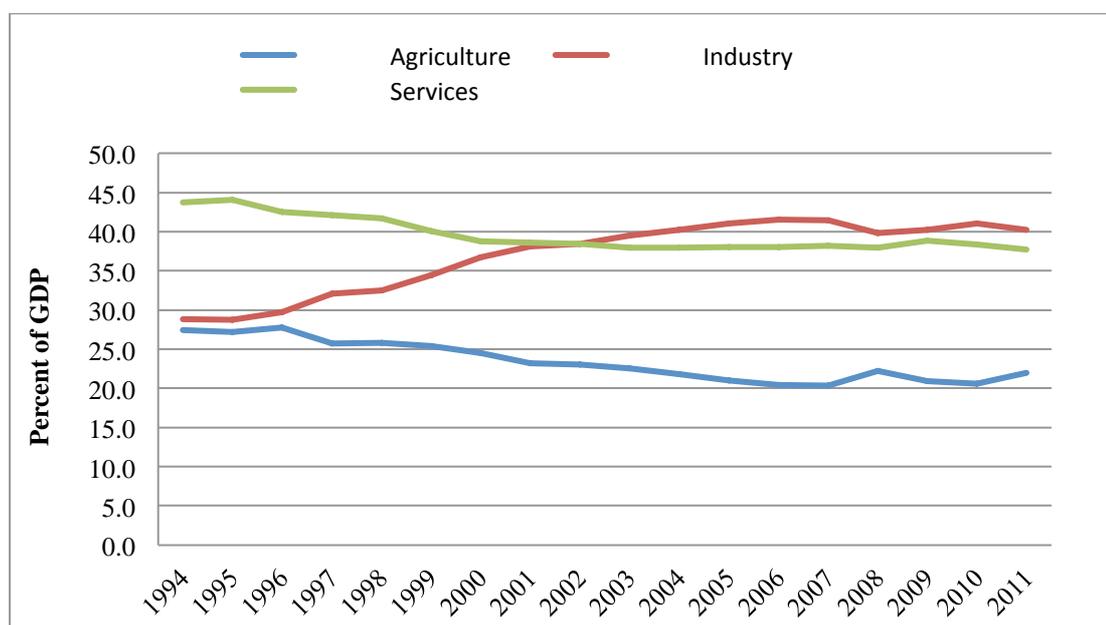
**Figure 1.3: Manufacturing Output 1994–2010 (in billion VND)**



*Source:* Data retrieved from Asian Development Bank (2013)

Over the course of Vietnam’s economic development, the structure of its economy has experienced a gradual change as reflected in Figure 1.4. The service sector has been relatively stable though with a slight downward trend, and the agriculture sector has declined from 27.4 per cent in 1994 to 22 per cent in 2011. In contrast, the share of the industrial sector rose from 28.9 per cent in 1995 to 40.3 per cent in 2011 (Asian Development Bank, 2013). This shift reflects Vietnam’s efforts to industrialise and modernise its economy and to move from an agriculture-based economy towards an industrialised one. Figure 1.4 details the structural transformation of the economy from 1994 to 2011.

**Figure 1.4: Structure of Output by Industry Measured by per cent of GDP, 1994– 2011**

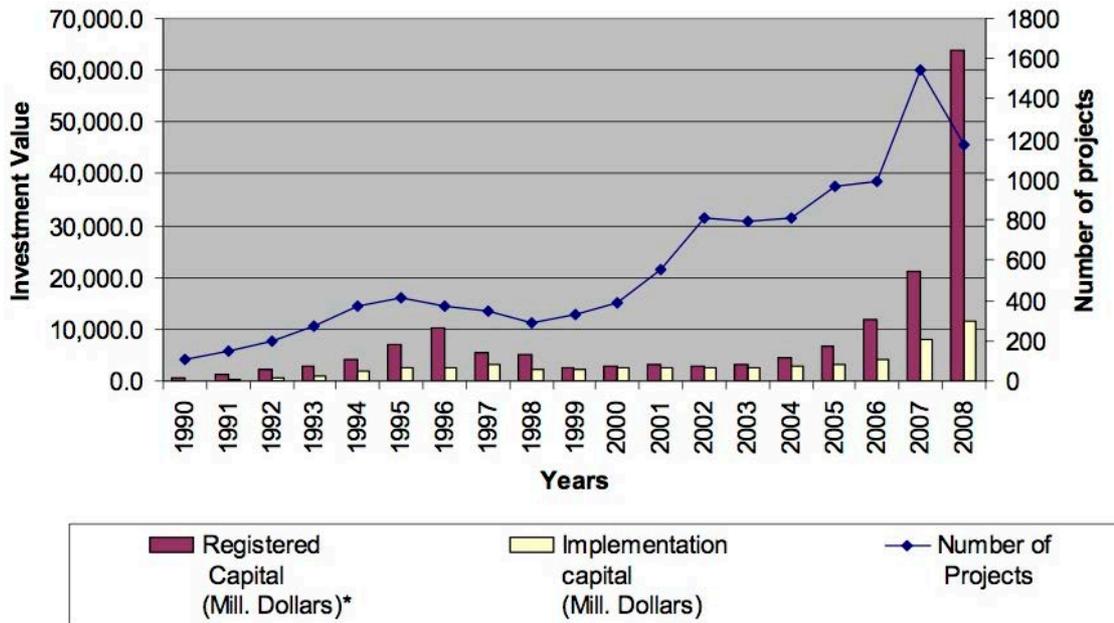


*Source:* Data retrieved from Asian Development Bank (2013)

In the mid-1990s, foreign direct investment (FDI) accounted for 30 per cent of total investments in Vietnam. However, the share of FDI fell to 20 per cent in the wake of the Asian financial crisis (Asian Development Bank, 2013; Nguyen, et al., 2010). However, Vietnam’s accession to the WTO during the late 2000s led to new FDI inflows. This was due in part to reforms that Vietnam committed that relaxed rules restricting FDI, which created an expectation among international investors about the development prospects of the country. Thus, Vietnam appears to be a more attractive FDI destination than other transitional economies (see Figure 1.5). In 2007 and 2008, FDI became the most important source of investment in Vietnam. Although Vietnam has been successful in attracting FDI, the real benefits from FDI seem controversial. Previous studies have found little evidence of technical spillovers from FDI enterprises to local counterparts (Nguyen et al., 2008) and that Vietnam has become heavily dependent on FDI capital as

a source to sustain economic growth (Nguyen, et al., 2010).

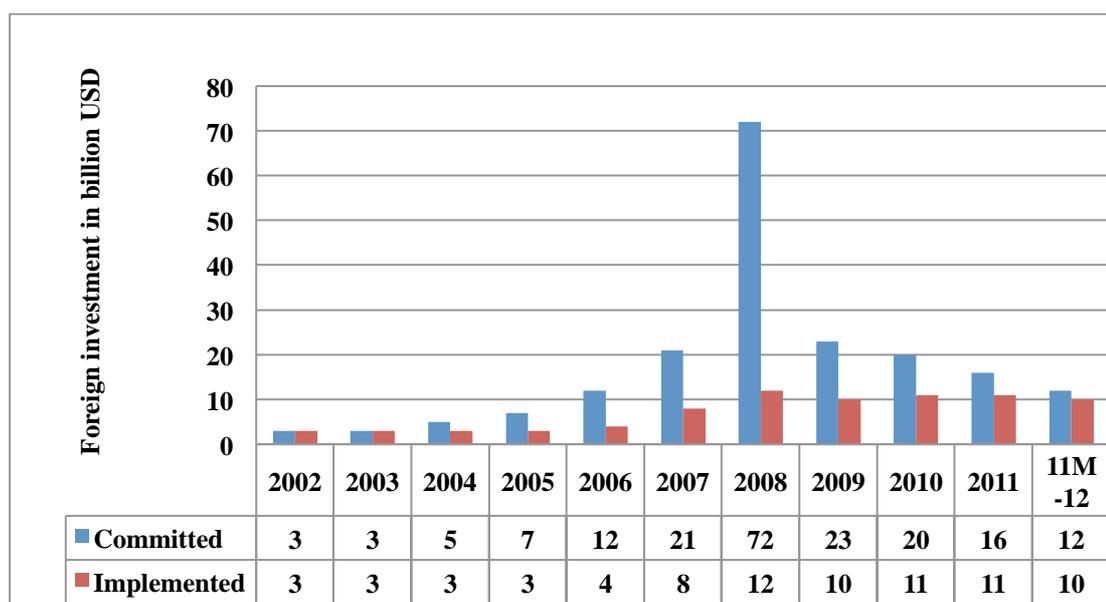
**Figure 1.5: FDI in Vietnam 1990–2008**



Source: Nguyen et. al. (2010, p. 30)

With slowing credit growth and the push to restructure public investments in recent years, total investment in Vietnam has fallen sharply: from 41.9 per cent of GDP in 2010 to 34.6 per cent in 2011, and it was estimated to be approximately 28.2 per cent in 2012 (CIA World Factbook, 2013c). This decline has been uniformly spread across the state and the private sector. Within the private sector, domestic private enterprises have drastically cut back their investment plans, though investments from foreign firms have not slowed down significantly in absolute terms (World Bank, 2012a). The flow of FDI into Vietnam remains high after 2008, with implemented foreign capital ranges between VND 207.77–228.55 trillion (USD 10–11 billion) (see Figure 1.6).

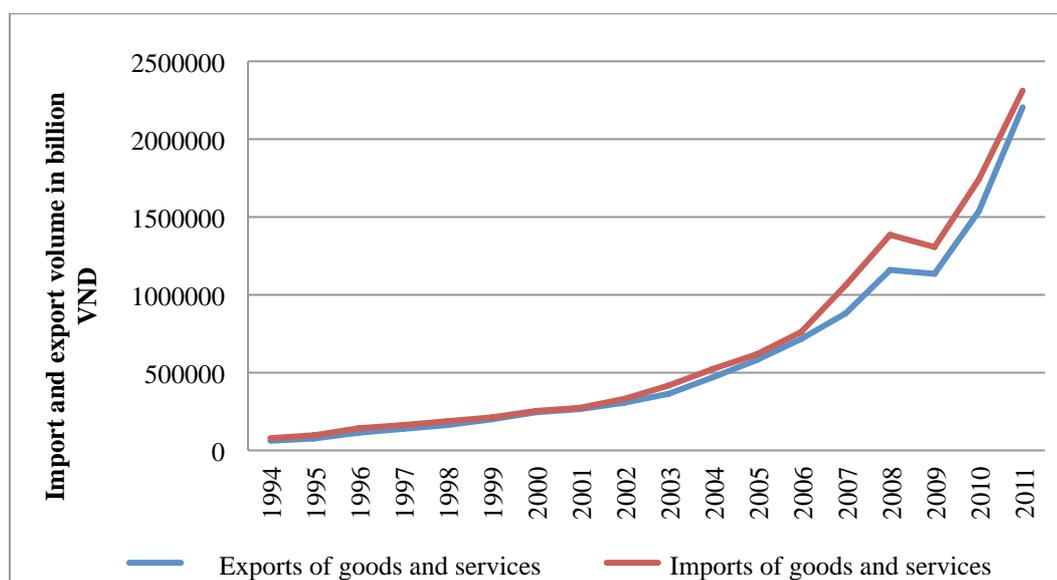
**Figure 1.6: Foreign Investment in Vietnam 2002–2012 (in billion USD)**



*Source:* World Bank (2012a, p. 15)

Over the last two and a half decades, Vietnam’s export growth rate has stayed on average 20 per cent per year thanks to foreign investment. Export growth in the industrial sector has been high, although value addition has been low since Vietnam relies heavily on imported inputs from abroad (see Figure 1.7). In 2009 exports slowed down slightly due to a demand drop in the global market but it increased in 2010.

**Figure 1.7: Import and Exports of Goods and Services 1994–2011 (in billion VND)**



*Source:* Data retrieved from Asian Development Bank (2013).

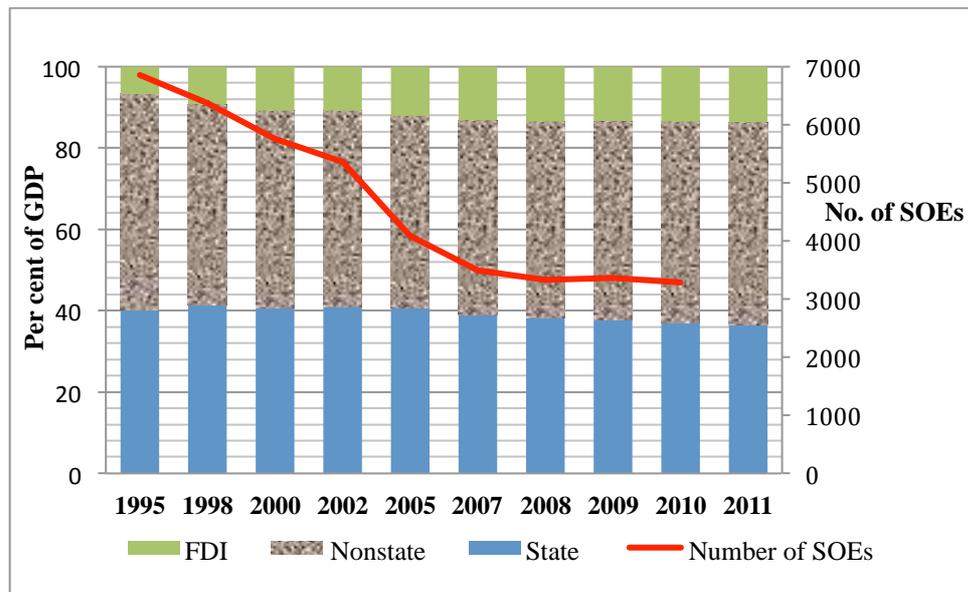
#### **1.4.2. The State Sector**

In recent years, few issues illicit more fervent debate in Vietnam than the topics that revolve around the Vietnamese state economic groups and state ownership. In truth, the state sector plays a pivotal role in the Vietnamese economy. According to the Committee for Enterprise Reform and Development and the Ministry of Planning and Investment, SOEs hold 70 per cent of the total real property; account for 20 per cent of investment capital throughout economy; and devour a staggering 60 per cent of the credit in the commercial banking system, 50 per cent of state investment capital, and 70 per cent of official development aid capital (see AmCham Vietnam, 2012). Meanwhile, these same enterprises are responsible for only 25 per cent of total sales revenues, 37 per cent of pre-tax profits, and 20 per cent of the value of national industrial output. The rate of credit used by SOEs to generate revenue is definitely higher than that of other enterprises.

It takes VND 22,000 (USD 1.03) in capital to create VND 10,000 (USD 0.47) in revenue, as compared to VND 12,000 (USD 0.56) in capital spent by businesses outside the state sector and VND 13,000 (USD 0.61) in capital expenditures by foreign enterprises operating in Vietnam (AmCham Vietnam, 2012).

In the last two and a half decades, Vietnam equitized about 4,000 SOEs, mostly between 2000 and 2006 (see Figure 1.8). Doan (2012a) points out that the overall number of SOEs, commonly referred to as enterprises, with controlling shares of the state has declined considerably, from nearly 7,000 in 1995 to less than 3,300 in 2010. At present, there are about 1,300 SOEs that are wholly owned by the state (Doan, 2012a). Despite the reduction in this number, SOEs' scale and influence remained intact throughout the Vietnam's development. In addition, little changes have taken place in the sectoral structure of SOE engagement in the economy, especially in sectors in which private enterprises can operate efficiently. Figure 1.8 shows that the state sector reduced its number of enterprises, but its share in the overall structure of the economy declined only slightly from nearly 40 per cent to roughly 38 per cent in 2011.

**Figure 1.8: Structure of Vietnam GDP and Number of SOEs (1995–2011)**



Source: Doan (2012a, p. 7)

Keen to emulate the experience of Japan’s *Keiretsus*<sup>5</sup> and the Republic of Korea’s *Chaebols*,<sup>6</sup> in 2005 Vietnam accelerated the process of creating general corporations (GCs) and state economic groups (SEGs)—an alliance of several SOEs with similar business interests before the country’s accession to the WTO. The GCs and SEGs initially did well, but their weaknesses were revealed in 2010 when one of their members, the state-owned shipbuilder Vinashin, failed to pay its international lenders and the state inspectorate found widespread financial irregularities and mismanagement in the company (World Bank, 2012b). Vinashin incurred a debt estimated at VND 93.5 trillion (USD 4.5 billion) (AmCham Vietnam, 2012). In 2012, mismanaged SEGs again

<sup>5</sup> Keiretsus refers to grouping of large Japanese financial and industrial corporations through historical associations and cross-shareholdings. In a keiretsu each firm maintains its operational independence while retaining close commercial relationships with other firms in the group.

<sup>6</sup> Chaebol refers to a South Korean form of business conglomerate. It is typically global multinationals owning numerous international enterprises, controlled by a chairman who oversees all chaebol operations.

gathered considerable public criticism surrounding the case of Vinalines, Vietnam's largest and state-owned shipping company and port operator. Vinalines was reported to have defaulted on loans worth VND 22.85 trillion (USD 1.1 billion) (AmCham Vietnam, 2012). The head of the Ministry of Transport's Maritime Administration, Dung Duong, and six other Vinalines officials were held for allegedly deliberately mismanaging the company's resources by spending VND 103.88 billion (USD 5 million) on a floating dock and purchasing more than 70 dilapidated foreign ships (AmCham Vietnam, 2012).

In recent years, the Vietnamese government appears to have veered towards a model of state capitalism in which the SEGs have enjoyed privileged access to factor inputs and a high level of operational autonomy from the state. This has led to more questions being raised about the SEGs' usefulness. Vietnamese scholars such as Painter (2005), Masina (2006, 2010) and Pincus (2009) persistently argue that this model of state capitalism has led to profit-seeking activities, inefficient use of state capital especially toward speculative activities and failure to create jobs for Vietnam's growing workforce. In addition, the GCs and SEGs crowd out the private sector and thus "prevent a genuine development of national economic force" (Masina, 2006, p. 155).

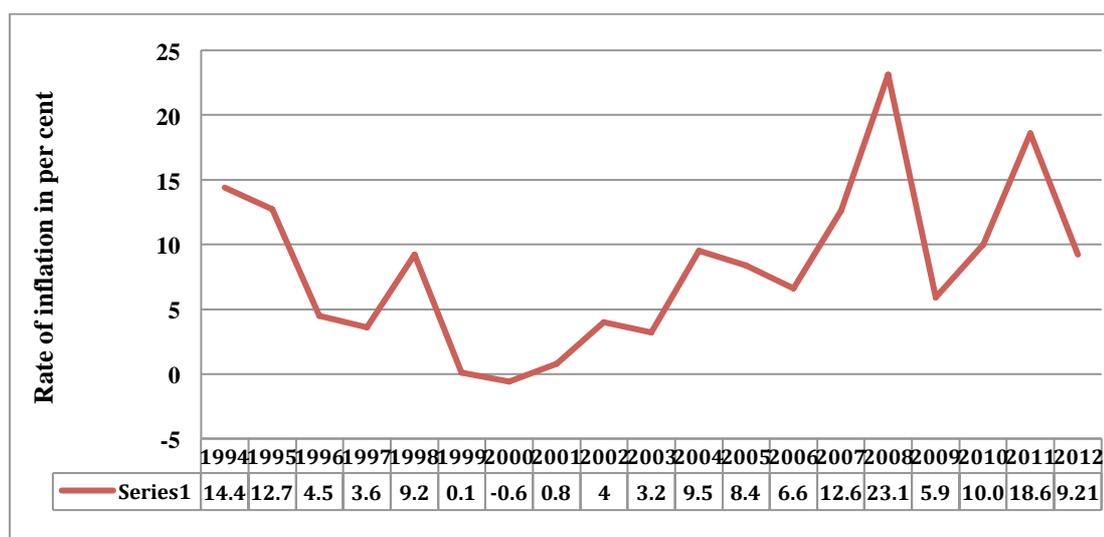
The situation was exacerbated when a few SOEs, taking advantage of weak oversight and transparency within the system, expanded their operation into areas beyond their core competency, mismanaged their finances, and concealed information from the government, thereby inhibiting the country's development progresses (World Bank, 2012b). As a result, in Decision 292, the Vietnamese government indicated that a restructuring of the SOEs would be a top priority of the government in the next Socio-Economic Development Plan, spanning from 2011 to 2015. In his paper, Doan (2012a) reviewed the guiding principles for SOE reform and pointed to fundamental and critical discrepancies in the principles. He questioned whether the next wave of reform

programmes, as set out in Decision 929, will make a difference in improving SOEs' performance, given previous reform experiences begun in the late 1980s (Doan, 2012a).

### **1.4.3. Structural Problems after the Great Recession**

Since 2008, Vietnam has experienced macroeconomic turbulence: double-digit inflation, large fiscal and trade deficits, depreciating currency, capital flight, loss of international reserves, and eroding investor confidence (Pincus, 2009; World Bank, 2012b). After more than two decades of rapid growth, Vietnam's economy has revealed new structural problems. The first sign of weakness was a persistent macroeconomic instability. For four years in a row, between 2008 and 2011, Vietnam had one of the highest inflation rates in Asia, averaging nearly 16 per cent a year (see figure 1.9). Core inflation, which is calculated after excluding some of the more volatile components of the Consumer Price Index basket such as food and fuel prices, was still very high at 11 per cent in 2011 (World Bank, 2012a).

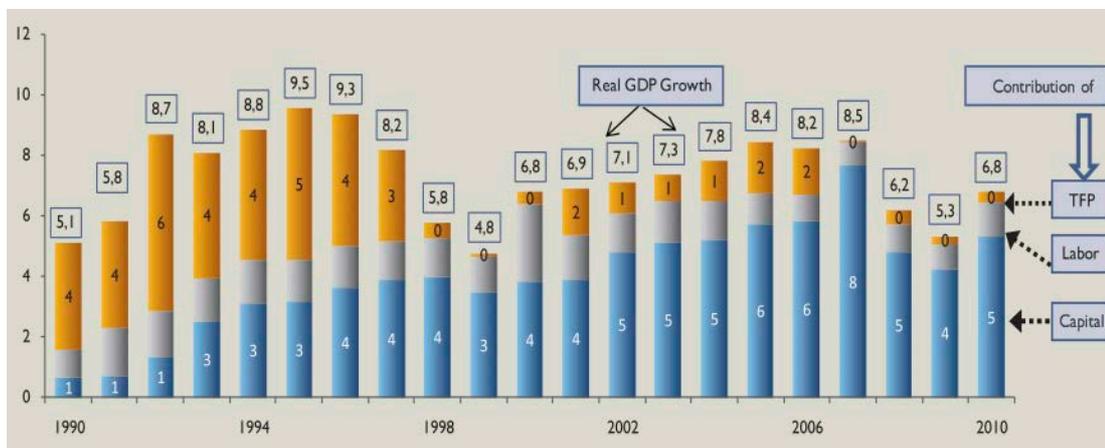
**Figure 1.9: Vietnam’s Inflation Rate, 1994–2012 (in per cent)**



*Source:* Author’s compilation. Data from 1994 to 2007 based on Nguyen et al. (2010); data from 2008 to 2011 based on Asian Development Bank (2013); and data from 2012 based on Hanoi Newsroom (2012).

Along with high inflation, Vietnam has also been coping with persistent pressure on its currency from falling levels of foreign exchange reserves, an underperforming stock market, high sovereign spreads, and domestic capital flight. Vietnam has thus become an exception to the broader trend of the rest of the emerging markets in Asia, which are dealing with appreciating currencies, rising foreign exchange reserves, and increasing capital inflow (World Bank, 2012b). In addition to macroeconomic instability, the most worrying sign for Vietnam’s sustainable and long-term growth is the fact that its economy experienced a decline in manufacturing productivity. Starting in 2007, the country’s economic growth has increasingly been based on factor accumulation, not productivity (World Bank, 2012b). Figure 1.10 illustrates the steady decline of total factor productivity (TFP). In 2010, a large part of the GDP composition was based on capital investment while TFP was close to 0 per cent.

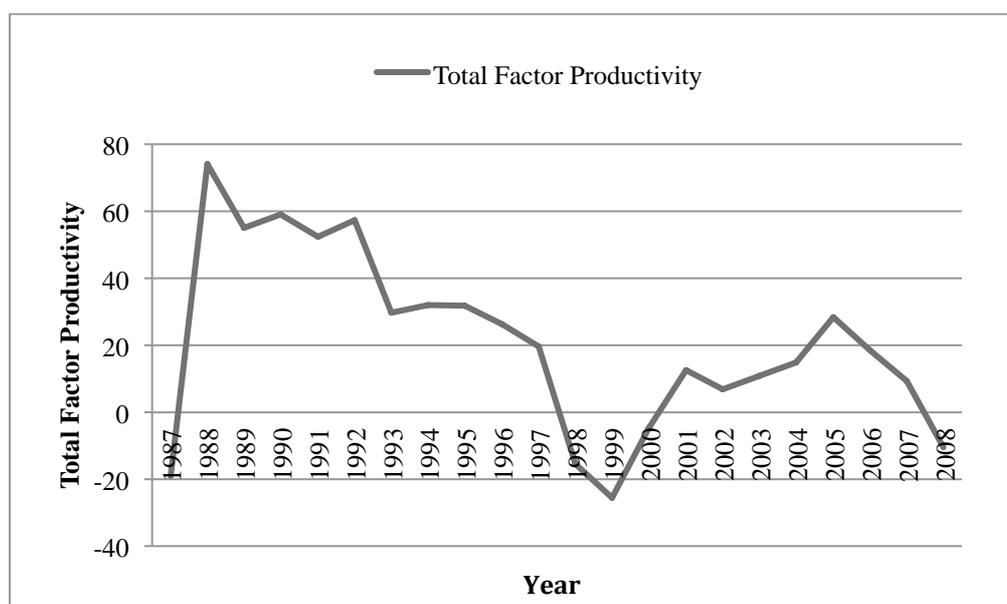
**Figure 1.10: Decomposition of Real GDP Growth into Contribution by Capital, Labour and Total Factor Productivity 1986–2010 (in per cent)**



Source: World Bank (2012b, p. 16)

In a study done by Nguyen and colleagues (2010), shown in Figure 1.11, observes similar results. The figure shows that TFP started to decline in 2005 and it hit a negative point in 2008. In sum, the quality and sustainability of Vietnam’s economic growth remain a major concern given the resource-intensive pattern of growth, decline in productivity, high cost of imported inputs, lack of diversification, and low value addition in exports.

**Figure 1.11: Total Factor Productivity in the Period 1987–2008**



*Source:* Nguyen et al. (2010)

#### **1.4.4. Final Remarks on Vietnam Economic Development**

Despite two and a half decades of strong growth and an attainment of middle-income status, starting in 2008, Vietnam has faced a transitional period both politically and economically. Rising inflation, and unemployment, as well as slowed economic growth exposed a large part of the population to hardship and difficulty in making a living. In addition, growing discontent over the country's income inequality, as well as disputes over property rights in a number of rural regions, have increased the prospects for social and political instability. The above-mentioned October 2012 Central Party Committee's Sixth Meeting was the first time in Vietnam's contemporary history that the contestation between two CPV groups were exposed and known to the public (Bloomberg News, 2012). This meeting was said to be the longest and most important meeting since 1975, and gave rise to a French newspaper's headline: "Vietnam PM's

future uncertain as communists meet” (Agence France Presse, 2012). At the end of the two-week meeting, Dung kept his seat, while the economy continues to go deeper into a recession. The Party Central Committee decision to keep Dung was said to reflect the CPV’s concern over the political stability and legitimacy of the Party among the growing Vietnamese discontents who frustrate with the government and the CPV (Bloomberg News, 2012). However, experts suggest that the power struggle continues within the CPV.<sup>7</sup>

The question of how Vietnam may overcome these economic and political challenges reflects the critical need to understand the power structure and the actual forces that drive the economy and the country as a whole. Given such enormous tasks, this thesis analysed Vietnam’s political economy from the perspective of rent and rent-seeking in the industrial sector, especially its technological dimension. The industrial sector has been at the core of the CPV and the government’s development agenda in the last two and a half decades. Consequently, there were considerable rents and rent-seeking in this sector that generate important upgrading for the country’s industrial development. A better understanding of this transformation is pivotal in order to devise development strategies that work in the Vietnamese context of rent management.

## **1.5. Thesis Structure and Overview**

The thesis is organised in seven chapters. After this introduction, Chapter 2 reviews the theoretical literature on technological adoption, rent, and rent-seeking in the context of development. The aim of the review is to provide characterisations of the

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<sup>7</sup> Carlyle Thayer, professor of politics at the Australian Defence Force Academy in Canberra, in Bloomberg News (2012).

process of technological change and its links to economic performance in the face of rents and rent-seeking activities in developing countries. This chapter reviews the important roles of informality and informal institutions in the creation and implementation of rents. It argues that the process of technological upgrading and capability-building in a developing country is subject to a number of market imperfections, which undermine firms and industries abilities to optimise their performances. As a result, appropriate rent and rent management strategies are needed to create the necessary incentives and pressure that address these externalities, especially those that may support learning and innovation.

Chapter 3 constructs a conceptual framework for the analysis of rents and rent management. As mentioned above, I refer to this framework as a Developmental Rent Management Analysis. The central utilisation of the DRMA framework is to help observe how the three rent management factors—politics, institutions, and industry organisation—affect the structure of incentives and pressure that ensure firms’ effort towards technical learning, upgrading, and innovation. This is based on the premise that successful rent management primarily depends on formal and informal political and institutional arrangements to produce incentives and pressures for upgrading. Investors who receive rents are expected to provide their best effort in order to achieve developmental outcomes. Furthermore, while rents are created for a variety of purposes, rent outcomes, whether good or bad, depend on a set of political, institutional, and market conditions that, in many cases, take place informally. One of the key objectives of the DRMA framework, therefore, is to understand this informality and how politics and institutions are configured. In essence, DRMA enables a broader understanding of the various factors at play—political, institutional, and economic—in the process of development, including its technological dimension. DRMA therefore allows for a fuller

and more complete understanding of how and why developing countries succeed or fail to industrialise and catch up with their developed counterparts.

Chapters 4, 5, and 6 analyse the industrial development of the telecommunications, textile and garment, and motorcycle industries, respectively, especially from the perspective of technical learning and upgrading. The qualitative analysis in these three chapters comprises eight case studies. The three in chapter 4 focus on the telecommunication industry; the three in chapter 5 focus on the textile and garment industry; and the two in chapter 6 focus on the motorcycle industry. A common structure is adopted for these three empirical chapters, starting with an overview of the respective industry's historical development before turning to identify the constraints or bottlenecks that restrict their development. Following this review, case studies which employ the DRMA framework discuss in-depth the rent management mechanisms that determine the success or failure of the respective industry's industrial development. These mechanisms take into account rents and rent seeking activities taken place throughout the reform period of the industry. Each chapter concludes with observations and policy options for the development of a developmental rent management strategy (DRMS) as Vietnam moves forward.

Chapter 7 synthesises the evidence and suggests that there were three different configurations of the rent management that drove Vietnam's industrial development since Doi Moi. In addition, this chapter draws out the implications of the findings for both theory and policy. Finally, this chapter puts forward potential areas for further research on rent and rent management in Vietnam.

## Chapter 2. **Technology Adoption In Rent-Seeking Economies: A**

### **Theoretical Framework**

#### **2.1. Introduction**

The issues of development in developing countries are twofold. First, growth and development requires technological upgrading and industrial capability-building (Lall, 2004). Second, embedded within each developing economy is a rent-seeking society, which operates both formally and informally. Rents and rent-seeking in developing countries are ubiquitous because the political, institutional, and market structures are such that a state plays a direct role in creating and implementing them while simultaneously being under the pressure of various interests that seek rents (Chang & Cheema, 2002; Khan, 2000b; Medema, 1991; Mueller, 1989). The first element is necessary for growth and development while the later either enhances or deters industrial upgrading and technological adoption.

This chapter assesses each of the two issues in turn by presenting an overview of key contributions in the literature on the political economic analysis of technological change, learning, rents, and rent-seeking. The purpose of this exercise is to construct a theoretical framework to examine the critical problems of technological upgrading and capability-building in the industrial sector of developing countries from a rent and rent management perspective. In this thesis, rent policy<sup>8</sup> is defined as a policy that creates

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<sup>8</sup> Generally, rent policy is any government policy that creates rent. Consequently, this type of rent is labeled policy-created rent in this thesis. Some portion of the rent policy may target market failures, though not necessarily related to an industrial sector. Where rent policy does target the industrial sector or economic development, it is thus a form of industrial policy. The portion of the rent policy, which does not aim to correct market

rent formally for the purpose of promoting development or informally to be extractive. Based on this definition, rent policy often emerges from formal political and institutional mechanisms. Extraction and redistribution could be the unintended effects of this rent policy.

This thesis argues that in order to achieve growth through technological upgrading and capability-building, rent policies must satisfy the political and institutional conditions for effective rent management under the pressure of rent-seeking. Technological upgrading is defined as any type of technical learning, as well as technological transfers, adoption, adaptation and innovation. Capability-building in productive activities is defined as the enhancement of organizational, technological and managerial capabilities relevant for producing higher quality products or similar products at lower cost. Thus, capability-building is related to the organizational and functional levels, as well as to individuals, groups, and institutions. In this context, industrial policy is a subset of rent policy, although the latter may be created for a purpose other than supporting the industrial sector. Subsequently, an effective rent management system is one that creates the incentives and pressure for technical learning and upgrading. More importantly, this thesis maintains that these conditions are not limited to the formal political and institutional arrangements within a state, but are taken from a wider context of the configuration between politics, institutions, and the structure and the boundaries between the market and the firms.

To this end, this chapter is organized into four sections. Section 2.2 assesses the characteristics of technological upgrading in a development context. It first reviews the

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failures are devised for redistributive or extractive purpose, and thus they are damaging, or growth-reducing, rents. This is a general definition of rent policy. In this thesis, rent policy is defined as developmental and not created for redistributive purpose. However, rents that emerge through various mechanisms could produce either growth-reducing or growth-enhancing outcomes.

neoclassical literature on technology and growth, which was largely derived from Solow's (1956, 1957) model on growth and technical change. Second, alternative approaches to technological transfers and the appropriation of knowledge are presented. These approaches challenge Solow's and others' assumptions by pointing out that the appropriation of knowledge is neither automatic nor costless. It is in this context that a state's intervention in the forms of industrial policies is arguably essential for catching up. Section 2.3 surveys the theoretical debate on rents and rent-seeking with special attention on technological upgrading and capability-building at the firm and industry levels. This thesis agrees with the heterodox economists' assertion that, under certain conditions, rents could be value-enhancing (Chang & Cheema, 2002; Khan, 2000b; North, et al., 2007) and thus, effective development strategies should take into consideration the creation and management of value-enhancing rents (Khan, 2000b).

Section 2.4 first presents alternative approaches to the issue of rent and rent-seeking. It then discusses the theoretical analysis on some of the most critical problems in development, especially as related to the issue of learning. This includes the notable research of Joseph Stiglitz (1989, 2013b), Ricardo Hausmann and Dani Rodrik (2003; 2008), and Mushtaq Khan (2000a, 2000b, 2009b, 2011). The discussion uses the analysis of market failures as a point of departure. Finally, considerations about the roles of politics and informal institutions, especially the research of Douglas North and colleagues (2007; 2006), Ha-Joon Chang (1999), Ha-Joon Chang and Ali Cheema (2002) and Mushtaq Khan (1995, 2000a, 2011), in solving the critical two-fold problem of development identified at the start of this chapter.

All these strands of literature clearly do not constitute a unified school of thought. Nevertheless, they present strong analytical complementarities and share a common belief that the analysis of technological upgrading and capability-building for developing

countries should be based not only on economic theories on technology, growth, and development, but also on a wider understanding of the formal and informal dynamics of rent-seeking and rent management processes. This literature provides useful insights in examining the determinants of technological upgrading and capability-building in the industrial sector of developing countries from a rent management perspective.

## **2.2. Characteristics of Technological Adoption, Capability-building, and Growth in Development Context**

Economic and industrial development can largely be viewed as a process of technological “catch up,” in which firms in developing countries learn to master new technologies of production already in use in more advanced economies. In this sense technological catch up is seen as a primary instrument that closes the technological gap between developing countries and the international technological frontier. By and large, this process facilitates developing countries to increase productivity levels, strengthen international competitiveness, and enter new markets or market segments for higher value-added goods (Warren, 2007).

The leading roles of technology and technological progress for economic growth and development are widely acknowledged in economics literature. In “An Inquiry into the Nature and Causes of the Wealth of Nations,” Adam Smith identified the gains to be made from the division of labour and production specialisation. Smith highlighted the benefits derived from a specific form of technological progress: organizational change. This change is also central to Marx’s (1906) and in a somewhat similar way Schumpeter’s (1942) analysis of the dynamics of capitalism, where innovation and competition drive processes of capitalist accumulation and growth. Similarly, it is also

instrumental in Kaldor's (1957; 1967) examination of industrial growth, capital accumulation, and economic development. Even neoclassical theory, which is generally more concerned with allocative efficiency at the exclusion of other types of efficiency, defined technological change, as articulated by Solow (1957), to be central to the growth processes.

This section first provides the neoclassical approach to technology adoption and growth, which is followed by alternative views to the neoclassical approach. The final section presents a paradigm shift from the neoclassical perspective of technological change to the theory of rents and rent management. This thesis argues that the understanding of rent management mechanisms—defined as the configuration of politics, institutions, and industry organisations that produce the rent outcomes—is critical to improving technological adoption and upgrading in developing countries, because this understanding provides insights into how rent policies can succeed under the pressure of rent-seeking in specific development contexts.

### **2.2.1. Neoclassical Debates on Technology and Growth**

Over the past 30 years, the debate on technological change and industrialisation in the context of development has largely been dominated by neoclassical thinking on economic development. Key policy and academic documents, such as the World Bank's "World Development Reports 1987: Industrialization and Foreign Trade" and World Development Reports 1991: The Challenge of Development 1991" or Anne Krueger's (1974, 1998) work on trade and development, continue to provide the basic theme for neoclassical analysis on technology and industrial development. This strand of literature presents firms as optimising agents with perfect information. Firms are also deemed to

function in perfectly competitive market environments, including markets for technological goods, among others, with price signals that are accurately set by the market. In the absence of policy restrictions, it is argued, technology is taken to be freely available across countries and costless to apply within the firm.

From a growth perspective, neoclassical thinking, notably presented by Solow illustrates the process of technological and economic development as essentially one of “automatic” convergence towards an internationally given technological frontier (in Warren, 2007). In this context, countries at different stages of development are to converge over time in their home per capita levels; that is, absolute convergence where adjusting for population growth and saving rates. Diminishing returns on factors of production is presumed.

With regard to the role of trade and international factor movements, the assumption is that the most efficient and appropriate technologies from advanced countries are free and available for developing countries to adopt at each and every stage, given their relative factor endowments. It is thus expected that it is only a matter of time before developing countries catch up with more advanced economies in technological and economic terms. When it appears that different economies grow at different growth rates that are not consistent with the absolute convergence theory, the inconsistency is considered to be the consequence of distortions induced by industrial or interventionist policies. In addition, differences in performance are regarded as the result of policy barriers, which slow technological trickledown effects from technological advanced countries to developing economies (Warren, 2007). In other words, government intervention deterred the “automatic” transfer of technology from advanced to developed countries.

From this perspective, neoclassical thinking asserts that technological progress in developing countries can be achieved by improving the channels and mechanisms<sup>9</sup> through which advanced technologies in developed economies can reach developing economies. In other words, developing countries should focus on improving the incentives for the transfer of technologies. To achieve these objectives, the neoclassical literature identified four main mechanisms that promote technological catching up and development: (1) trade, (2) market (internal and external) deregulation leading to increased competition, (3) foreign direct investment, and (4) macroeconomic stability. These mechanisms are largely reflected in the Washington Consensus agenda led by the World Bank and the International Monetary Fund in the late 1980s.

The focus on these four mechanisms as avenues of technological upgrading for developing countries reflects the assumption that technology can be unconditionally imported from abroad via trade and FDI. However, over-regulation, interventionist policies, and macroeconomic instability are barriers to technological adoption in developing countries because they deter investment and the full development of market forces. At the policy level, neoclassical views on the process of development, including its technological dimension, have provided the basis for the implementation of structural adjustment and macroeconomic stabilisation across the developing world, and most notably embedded in the Washington (and Post-Washington) Consensus and the International Monetary Fund's financial reform agenda.

### **2.2.2. Critics of the Mainstream Approach**

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<sup>9</sup> The term 'mechanism' describes the formal and informal process that institutions implement and sustain.

There are a number of shortcomings in the neoclassical economic approach to technology and growth. First, the neoclassical primary concern is allocative efficiency at the exclusion of other and perhaps more important types of efficiency. Neoclassical economics assume that by construction, market mechanism is efficient and nonmarket mechanisms are inefficient (Fine, 1997). This view is far from reflecting the reality, especially in developing countries where distorted price signals and market failures are much more pervasive and damaging than in developed countries (Fine, 1997; Khan, 2000b; Rodrik, 1995, 2004b; Stiglitz, 1989, 1994). Second, the neoclassical approach, which largely focuses on allocation of resources at the margins in a competitive environment, provides little insight in response to a number of fundamental questions concerning: (1) how to mobilise and deploy new resources and to create new capacities; (2) how finance, trade, employment, and the exchange and interest rates are associated with industrial strategy; and (3) how an industrial strategy fits in with the development of the economy as a whole (Fine, 1997).

Third, transfers of technology from FDI are not voluntary and automatic. Amsden (2009) points out that most cases of accelerated accumulation of technological and managerial capabilities have historically occurred within domestic firms, not within subsidiaries of foreign-owned firms operating in a developing country. This is because “even when MNCs [multinational corporations] are an important source of capital investment, they often carry relatively limited technology transfer, with the most tacit forms of knowledge and a good deal of R&D activities being kept in developed countries” (Cimoli, Dosi, & Stiglitz, 2009a, p. 8). Finally, new (endogenous) growth theory dismisses the standard neoclassical proposition in two fundamental ways. First, technology is endogenous, and thus different firms and countries may operate under significantly different technological conditions and costs (Fine, 1997). Second, given the

determinants of the returns on capital, the direction of investment decisions is no longer solely determined by its relative scarcity, but also by labour, education, and skills (Fine, 1997).

Given the simplistic and impractical assumptions put forward by Solow's growth model, policy agendas set by neoclassical thinking are not achievable. More importantly, a partial move towards such policies advocated by the New Washington Consensus<sup>10</sup> can be damaging for countries because it does not solve the pressing issues of development, such as market externalities and political, financial, and fiscal instabilities (Rodrik, 2004b). In addressing these shortcomings, the heterodox view reviewed in the next section asserts that historically and realistically technological upgrading takes place in vastly different ways from the processes asserted by the neoclassical literature.

### **2.2.3. Alternative View: Technological Capability and the Appropriation of Knowledge**

Countering neoclassical thinking, the alternative view points out the idiosyncratic, context-dependent nature of firm-level dynamics. This view calls attention to the cost of adoption and efficient use of technologies, which is difficult to adopt and adapt at the firm level (Cimoli, Dosi, & Stiglitz, 2009b). In addition, the alternative literature stresses the prevalence of market failures facing the development of key technological inputs, such as skills and capability, as well as market failures in the diffusion of technological and business development knowledge throughout the economy (Cimoli, et al., 2009a; Hausmann & Rodrik, 2003; Khan, 2009b; Stiglitz, 1989).

Economists who advocate state intervention in reducing the technology gap in developing countries point to the fact that learning and technology adoption requires a

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<sup>10</sup> Rodrik (2006) named it the "Augmented Washington Consensus."

great deal of effort, financial resources, and time (Chang & Cheema, 2002; Hausmann & Rodrik, 2003; Khan, 2000b, 2009b; Rodrik, 2007). This is because learning new tacit knowledge requires numerous trials of learning-by-doing, which takes time and effort to adapt to the new technology and to put the new skills into use. In addition, a distinguished feature of developing economies is that significant effort must be devoted to the adaptation and improvement of products and to develop competitiveness in operational management and production organisation.

There is a great deal of literature, which provides theoretical and empirical evidences on the role of domestic firms in adopting new technology. Metcalfe (1994) Evenson and Westphal (1995), Deraniyagala (2000a, 2000b) argue that domestic firms in developing economies have to play a more active role in the process of technological development because efficient use of foreign technologies involves small product developments, modifications of production machinery, and so on. More specifically, Lall (1992) maintains that technological change in developing countries takes place mostly in the forms of importation and incorporation of foreign technologies that improve production processes and firms' capability. To achieve this, firms operating in developing economies must be skilled and technologically capable if they are to make appropriate use of these foreign technologies and engage in efficient production – two elements that are mostly insufficient in developing economies.

In a context where international comparative advantages are no longer determined only by factor endowments but also by the level of technological competence and progress, these issues are particularly significant. This is because in developing countries, the development of technological capabilities in sectors associated with higher learning-by-doing, value addition, or complex manufacturing could contribute to greater industrial deepening and economic growth through spillovers (Stiglitz, 1989, 2013b).

Given these considerations, it is clear that the question of how firms in developing countries engage in technological efforts and how these efforts impact economic performance cannot simply be reduced to a problem of accessing foreign technologies, nor to a narrow reading of the role played by market competition as an incentive mechanism for technological upgrading, as posited in the neoclassical literature.

From this perspective, across-the-board liberalisation policies, if not accompanied by efforts to upgrade local technological capabilities, may lead to a situation where developing countries only reinforce existing advantages in simple, low-tech activities where they possess comparative advantages (Warren, 2007). An increase in foreign competition within the domestic market has also been known to discourage local firms from investing time and financial resources into new technology, instead opting to pursue low-cost production activities (Ohno, 2008) (see Chapter 5 and 6). Given challenges in technology and capability development, as well as the existence of market failures, development economists generally argue that developing countries must employ industrial policies to remove market externalities that constrain learning and to support technological adoption and innovation that go beyond the policy framework put forward by neoclassical theories.

#### **2.2.4. From Trade Liberalisation and Industrial Policy Paradigms to Rents and Rent Management**

Underlying Solow's and the neoclassical discussion of the process of technological and economic growth is a presumption that the process of technological upgrading is automatic and that the role of the state should largely be limited to promoting market liberalisation, free trade, macro-stability, and incentives for foreign

direct investment. However, neoclassical theories do not provide the methodological tools for the state to cope with its important role during liberalisation or which policy instrument is appropriate to correct the pervasive market failures that constrain technological upgrading and learning in developing countries. Here, the fundamental issue is that political and economic interests, which create and seek rents through policy measures (Khan, 2000a; North, et al., 2007), are strong determinants of a state's ability and strategy to undertake meaningful and effective reform. In addition, Fine (1997) points out that politics and its arrangement within a state apparatus strongly correlates with socioeconomic conditions and the way the state and the private sector interact.

Interest groups operate through the state, such that they influence, and are influenced by state strategies and policy. ... Markets do not mediate adequately between these different interest groups because they are dominated by the stronger ones; and market-friendly theories have little to contribute about this problem because they are based on the assumption that economic agents are atomistic and therefore they assume away political power or only deal with it within the narrow boundaries of imperfect competition and government failure (Fine, 1997, p. 7).

While the technology-capability literature provides valuable insights into the basic process of technology and industrial development, a full understanding of how these processes evolve in specific country contexts requires an in-depth assessment of the historical, political, and economic settings in which they take place. This understanding could be achieved through broader conceptualisation of rents, rent-seeking, and policies that promote technological change and economic transformation.

Recent contributions in the political economy of development analysis and by the more heterodox literature on rents, and rent-seeking provide a practical approach to assess and address some of the shortcomings in the neoclassical literature. This strand of literature provides an effective analytical tool to evaluate important development factors at play in the process of economic development, including its technological dimension. These factors include formal and informal political and institutional conditions and dynamics of the industry organisation. The next section provides a theoretical review on rent and rent seeking with the inclusion of research and discussions on market failures, political settlement, and informality in the context of development.

### **2.3. Rents and Rent Seeking in a Development Context**

A distinction in rent-seeking activities between developed and developing countries is the rule of law, as well as the characteristics of their political and institutional structures. In developing countries the latter are more underdeveloped and incomplete as compared to developed countries. As a consequence, informal relationships, between organisations and with the state frequently take place behind formal institutional structures and relationships. As a result, rents—damaging or not—and rent-seeking are ubiquitous and more widespread in developing countries (Khan, 2009b; Medema, 1991; Mueller, 1989). The literature on rents and rent-seeking increasingly include heated debates on the cost and effects of rents, especially in the context of development. In the next section, the analysis of rents and rent-seeking, based on the neoclassical school, are reviewed. The heterodox approach to rents and the potential of value-enhancing rents are discussed. This thesis argues that an industrial

policy is a form of rent policy<sup>11</sup> because any strategy that corrects or tries to correct market failures to boost industrial development inevitably changes the distribution of benefits to society and therefore inevitably creates rents (Khan, 2000a, 2009b).

### **2.3.1. Neoclassical Definition and the Agenda to Eliminate Rents**

The neoclassical literature, as part of the field of public choice theory, refers to rents as excess income and to rent-seeking expenditures as socially wasteful; and this latter expense diverts resources from productive activity (Buchanan, et al., 1980; Krueger, 1974; Murphy, Shleifer, & Vishny, 1989; Posner, 1975; Tullock, 1967). From this perspective, value-enhancing rents cannot exist. The suggested policy implication is that, in addition to liberalising an economy to achieve optimal growth rates, developing countries should either have a set of institutions that minimise rent-seeking (Krueger, 1974) or avoid setting up institutions that create rents (Mueller, 1989, p. 245). When market externalities are said to trouble development (Stiglitz, 1989), this literature argues that no matter how imperfect the market is, more market is better than less (in Fine, 2011). Thus, this strand of literature not only dismisses the role of rents based on the premise that a no-rent society is desirable for growth, it also presses for free market, free entry and exit, and accountable politics to deliver public goods: a combination that is virtually unachievable in developing countries. Subsequently, this position not only advocates for a good governance agenda, but also a market-driven growth agenda as well.

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<sup>11</sup> In general, all industrial policy is rent policy but not all rent policy is industrial policy. Policies that create rents may have broader aims than promoting industrialisation; for instance, policies that focus on social development.

Using a definition that is consistent with standard neoclassical textbooks, Khan (2000b, p. 21) defines a rent as something a person gets if “he or she earns an income higher than the minimum that person would have accepted, the minimum being usually defined as the income in his or her next best opportunity.” Similarly, Samuels and Mercurio (1984) define rents as “income received over and above the amount that would be received under a different institutional, or rights, arrangement” (p. 55). In this context, policy or legal change alters the pattern of resource allocation and exposures in society, thus creating rents. Further, the possibility of legal change presents the potential for a different allocation of rents since such a change alters rights of individual and groups. Hence, once there is the possibility and desirability of change in legal and economic relations, rent-seeking emerges (Medema, 1991).

The first generation of rent-seeking models argues that even if only mildly damaging rents exist, the net effect is crippling because of high rent-seeking costs (Kruger 1974, Posner 1975, Buchanan et. al. 1980, in Khan, 2000a). This is because as a state creates rents, economic actors pay money to seek these rents. Such expenditures are considered wasteful from society’s perspective (Medema, 1991). Hence, one needs to include the costs associated with rent-seeking in the estimate of the total costs of rents. Subsequently, a cost combination model, which combines the established cost of monopolies with the high cost of rent-seeking was developed. Tullock (1967, 1980) contends that in a competitive rent-seeking model, the aggregate resources devoted to pursuing redistribution of wealth can equal the value of the rents to be distributed.

Furthermore, using the competitive market model, economists of this first generation show that a monopoly created and sustained through rents results in *lower* production output compared to the competitive market (in Mueller, 1989, pp. 229–246). This result signals inefficient allocation of resources and has a social cost that is the loss

in social benefit to society: the deadweight welfare loss. Broadly speaking, the public choice literature basically focuses on these negative consequences of rent seeking. Buchanan and colleagues' (1980, p. 359) view is typical and influential:

Rent seeking involves social waste. Resources that could otherwise be devoted to value-producing activity are engaged in competitive effort that determines nothing other than the distributive results. Rent seeking, as such, is totally without allocative value, although, of course, the initial institutional creation of an opportunity for rent seeking ensures a net destruction of economic value.

The inference of this analysis lends supports to the argument that there should not be any rents in the competitive market (Krueger, 1974). This conclusion is deemed to be the goal for all developing countries because it maximises net social benefit given a set of resource endowments and technology (Khan, 2000a).

The second generation of the rent-seeking model reveals that under different institutional structures, the cost of rent-seeking could be substantially lower (Congleton, 1980; Rogerson, 1982). As a result, rent-seeking costs could fluctuate over a much wider range, so rent-seeking would not necessarily be expensive. In addition, models in this second generation relax some assumptions, especially one that assumes rent-seeking always results in the creation of value-reducing rents. Putting forward his theory of unproductive profit-seeking activities, Bhagwati points out that due to the intrinsic second-best consideration, there may not exist the positive shadow prices<sup>12</sup> on resources used in rent-seeking, implying that individuals' quest to secure biddable rents need not

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<sup>12</sup> Shadow prices indicate the highest price a producer could pay for that added resource without becoming worse off overall from adding the resource.

always entail socially wasteful activity (in Hillman & Katz, 1984). In addition, Bhagwati's analysis also shows that rent-seeking outcomes can theoretically have a positive net-social value (in Hillman & Katz, 1984). Nevertheless, Bhagwati did not conclude that rents could therefore be value-enhancing.

### **2.3.2. Heterodox Approach and the Potential of Value Creating Rents**

In contrast to the mainstream contention to rents and rent-seeking, the heterodox literature not only looks at costs, but also looks at the outcomes that rents produce, which arguably can be either negative or positive. Khan (2000b, p. 71) points out that “one problem in most of the rent-seeking literature has been that it has concentrated almost exclusively on the social costs of the resources used up in rent-seeking and very little on the different types of rents and outcomes which rent-seeking has created in different context.” The author suggests that the overall effect of rent-seeking must be calculated using both the costs incurred and the rent outcomes created. Therefore, rents can be seen as possibly value-enhancing when the positive outcome outweighs the cost. Analysing rent-seeking from a property rights perspective, Khan (2000b) suggests that rent-seeking should be framed as a process that creates and alters rights, which can lead to a more efficient allocation of resources within an economy.

This assertion is partly based on earlier insights on how rent-seeking could create rents that are beneficial, which gained momentum in the 1990s, especially in view of the East Asian development model. Amsden (1989) and Wade (1990) point out that during their industrial development, both Taiwanese and Korean governments had allocated subsidies to promote industrialisation in socially beneficial manners. Similarly, Cowen and colleagues (1994) assert that “rent seeking can increase political effort and thereby

increase social welfare” (p. 132). This is because when some public policies generate rents for public officials who otherwise have little incentive to spend time and effort proposing policies that benefit others, rent-seeking in politics can motivate officials to provide public goods (Cowen, et al., 1994). In making this assertion, the authors assume that public officials receive more rents the more they promote policies, and if these policies profit the public, they increase social welfare (Cowen, et al., 1994). In other words, if the policies are useful for the public, the usefulness of the policies can compensate for the costs of rent seeking.

In focusing on the role of rent-seeking in the creation of new markets for value-enhancing products, Abbott and Brady (1991) show that rent-seeking that succeeds in lifting regulatory restrictions and, thereby, creates markets that would not have existed but for rent-seeking could enhance, rather than diminish, welfare. This is particularly the case if the regulatory restriction retarded technological innovation. Removal of the restriction allows for firms and products that embrace new technologies and innovations to emerge and integrate into the production organisation. Here, the authors assume that inefficient restriction was maintained because it benefited specific groups that had interest in prolonging the restriction in order to sustain their rents.

As certain rents can be value-enhancing (especially those that promote learning and innovation), portraying rents and rent-seeking as value-reducing in every possible circumstance is misleading. Khan (2000b) argues that developing countries do not need an institutional structure that focuses on minimising rents but one that achieves a distribution of rents and a configuration of the rent-seeking process that is growth-enhancing. As a result, and in agreement with Khan, the analytical focus of this thesis is on the institutions and politics that create value-enhancing rents and that support economic development.

## **2.4. Review of Rents Management as a Development Strategy**

Many institutional and development economists agree that governments have a positive and catalytic role in promoting development in the economy, especially in the industrial sector, through technological upgrading and capability-building. This thesis argues that developing countries need an effective rent management system; one that makes rents value-enhancing and developmental because they are associated with incentives and pressures that force learning and effort, despite the costs of rent-seeking activities. From this perspective, an effective rent management system requires economists to first identify the most important economic problems for development. Dani Rodrik (2004b) calls these problems the “binding constraints” facing development. To answer this query, the modern theory of market failures provides useful insights to clarify these problems, or constraints, to development. It should be pointed out, though, that most institutional and development economists differ as to what these are. This discussion is provided in sections 2.4.1.

Some development economists, notably North, Wallis and Weingast (2007, 2006), Chang (1999) and Chang and Cheema (2002), and Khan (1995, 2000a, 2000b, 2011) take the issue of development one step further by asking: “How do governments in developing countries solve these critical constraints given that politics and informal institutions matter?” There are additional notable contributions in the literature that attempt to answer this political economy question, despite the diverse variation in approaches and analytical methods. This discussion is provided in sections 2.4.2 and 2.4.3.

This thesis concludes the theoretical review by appealing for a better understanding of the mechanisms that manage rent and rent-seeking activities, going beyond the scope of the efficient and self-regulating market as well as the developmental state. These rent management mechanisms must also encompass (1) the political context of rent creation, allocation, and implementation, (2) the formal and informal institutions that create and manage the rent, and (3) the organisation of the industry which affects the incentives and pressures ensuring learning effort. To this end, this theoretical review touches upon important discussions that focus on these three factors. This broader review sets the fundamentals for the analytical framework discussed in the next chapter.

#### **2.4.1. Market Failures as Constraints to Development**

The modern theory of market failures has helped identify the most important problems facing economic development. Market failure is a general term describing situations in which resources are not allocated in the most efficient manner, causing market outcomes to fall short of achieving optimal efficiency. The argument here is that markets, on their own, are not efficient in promoting growth and development.

Market failures in technological adoption arise due to the existence of a number of supply-side constraints such as technological externalities, informational problems, the problem of contracting for effort in the learning process, insufficient access to financing by manufacturing firms, spillovers, and the uncertain nature of technological investment. In addition, they are also the result of deficiencies in capital markets used to finance technological investments and learning. From the perspective of industrial capability-building through technology adoption and transfer, the pervasiveness of market failures in the supply of technology-related inputs is particularly damaging

because they deter the utilisation of new technology in competitive production (Lall, 1992; Lall & Larsch, 1999).

In addition to the supply-side externalities, the market failures that the literature identifies as demand-side also constrain the process of firm-level technological accumulation. These essentially refer to the lack of *incentive framework* for manufacturing firms to put forth serious effort to learn new technology, to upgrade organisational capability, and to innovate. Directly related to the demand-side constraints are problems such as a high degree of competition and macroeconomic and political instability. These issues undermine firms' investment decisions and their technology development efforts.

In the context of using state interventions to correct market failures, which developing countries cannot quickly fix via by market reform, corrective policy interventions create rents, and thus rents become relevant to market failure analysis. Those who agree that there are market failures that the market itself cannot not resolve, will contend that some rents are useful because a rent policy can address some of these market failures so as to enhance the speed of technological upgrading and learning for domestic firms. Following this argument Chang (2000), Chang and Cheema (2002), Khan (2000b, 2006; 2009), Rodrik (2004a), Stiglitz (1989; 2001) and Wade (1990) are in agreement that rents (or policies made by a developmental state) can be an instrument for promoting growth and development via learning and technological upgrading.

Central to the debate of market imperfections are the externalities that impact learning, described first by Arrow (1962) and then Stiglitz (1989) and Khan (2000b) under the concept of "learning-by-doing," and by Hausmann and Rodrik (2003) as "learning-by-discovery." These development economists use slightly different analyses in examining learning failures in developing economies.

#### **2.4.1.1. Stiglitz: The creation of a learning economy**

For Stiglitz, the point of industrial policies is to identify externalities and market failures because nearly every successful country has had industrial policies in which the private sector was assisted in bringing innovation to the marketplace. Stiglitz (1989, 1994) and Stiglitz and Snowdon (2001) contend that a government should finance learning either directly or through subsidies on two important premises. The first premise is that successful and sustainable growth and development requires creating a learning society. This is especially true in the 21st century, as markets move to a knowledge economy. However, marked market failures, particularly those associated with impeded learning, are pervasive in developing countries.

To explain market failure, Stiglitz (1989) employs the analysis of first mover's positive externalities. People who first invest in technical learning or innovation in the industrial sector tend to lose out because their investment has positive externalities, so the first mover assumes risks which second and third movers do not want to take. As a result, businesses wait for the first mover to invest in the industrial sector. However, once the risk is transformed into profitable learning, the first movers often do not have enough time to make a monopolistic profit over the knowledge as the second and third movers use this knowledge. In the development environment, where market failures in information and capital markets are widespread, the first mover externalities may deter investments, especially in learning and innovation, given the risk associated with being a first mover (Stiglitz, 1989).

As for the second premise, Stiglitz argues that developing countries need a strong industrial sector because it is related to the rate of productivity increases (Stiglitz, 1994).

The industrial sector also maintains important advantages such as high returns: to economy of scale, from the completion of learning (industrial upgrading), from learning continuity, and most importantly from diffusion and spillovers. Based on these two premises, Stiglitz (2013b) contends that it is desirable to encourage learning and development in the industrial sector<sup>13</sup> as it embeds larger societal learning benefits, taking into account both direct learning and cross-sectoral spillovers. Therefore, the government must employ subsidy strategies that lead to an expansion of the industrial sector. In summary, industrial policies, which Stiglitz (2013a) defines as any policy affecting economic structure, can help “correct” market failures in the form of subsidies (or rents). Such policies are optimal solutions to promote the development of the activities with positive externalities, such as education, information, and first-mover investment, to create a learning society that enables sustainable development and growth.

#### **2.4.1.2. Hausmann, Rodrik, and Valesco: Learning by discovery**

While observing the performance of developing countries throughout their reforms, Hausmann and Rodrik (2003) noticed that free-market followers, such as countries in Latin America, failed to perform despite successful adoption of foreign technologies, whereas, countries with initially weak market foundations and heavy state interventions, such as China, Taiwan, and South Korea, achieved phenomenal growth rates in the last three decades of the twentieth century. In their assessment, Hausmann and Rodrik (2003) highlight two major failures of laissez-faire approaches: “There is too little investment and entrepreneurship ex ante, and too much production diversification

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<sup>13</sup> Stiglitz defines the industrial sector broadly to mean the modern sector, because he also includes many services in this sector.

ex post” (p. 1). The authors later in the book described this as market failure of discovery and self-discovery.

In modelling these externalities, Hausmann and Rodrik (2003) use a first-mover externality analysis that is similar to Stiglitz’s. Under a free market system, the first entrepreneur often has less incentive to invest due to insufficient ex post profits. Moreover, it is uncertain when the second (or third) investor will enter the market to take advantage of the discovery, which in turn drives down monopoly profits from the discovery. If the first inventor cannot guarantee profits from his investment ex ante, he has very little pretext and motivation to invest in new technology. In the event that this behaviour becomes systemic in all industries within an economy, the country could suffer not only tremendous social and economic losses, but also potential technological backwardness due to lack of new discovery (Hausmann & Rodrik, 2003).

In their model, Hausmann and Rodrik (2003), on the one hand, assume that every developing country has various comparative advantages, but that investors do not have prior knowledge of what those advantages are. This distinguishes their approach from Stiglitz’s (and others’) model of externality in learning, because the latter do not assume that developing countries have a number of hidden comparative advantages that need discovering. On the other hand, Hausmann and Rodrik assert that discovery comes with time and effort but it does not always produce expected and desirable outcomes. In other words, the first investor’s gain from investments is not guaranteed.

To correct this externality, Hausmann and Rodrik (2003) and Rodrik (2004a, 2007) argue that industrial policies such as subsidies and taxes need to be selective and focus on the actual binding constraints in learning and discovery, rather than tackling across-the-board reform. Based on the learning-by-discovery model, Hausmann et al. (2008) identify three major constraints which are widely seen to slow growth: (1) low

private and social returns to investment, (2) poor appropriability of those returns, and (3) inadequate access to finance. As a result, Hausmann and colleagues advocate a cautious, experimental industrial policy. To identify, prioritise, and overcome the most critical constraints in growth, they developed “growth diagnostic” as a broad growth analysis framework (Hausmann, et al., 2008, p. 1). Growth diagnostic is an “approach to development that determines the action agenda on the basis of these [diagnostic] signals is likely to be considerably more effective than a laundry-list approach with a long list of institutional and governance reforms that may or may not be well targeted on the most binding constraints to growth” (p. 25). However, the authors contend that the process of diagnosis and policy response needs to be institutionalised gradually so as to ensure that the policy does not fall apart during the reform process.

#### **2.4.1.3. Khan: Building organisational capability and ensuring high level of learning efforts**

In his 2009 paper, entitled “Learning, Technology Acquisition and Governance Challenges in Developing Countries.” Khan focuses on the development of organisational capabilities within firms as a necessary condition for achieving global competitiveness. This, rather than the difficulty of acquiring machinery or skills, is the most important constraint limiting the ability of developing countries to acquire competitiveness in known technologies in which they already have formally skilled workers. The missing organizational capabilities are largely missing tacit knowledge. Khan observes that while some firms in developing countries may have the required number of workers and new machinery, they simply are not able to produce a product at the price and quality of firms in more advanced countries. The difference here lies in

building the organisational capability through learning by doing because this is the only way for firms to embed routines and tacit knowledge into their production organisation. Without this tacit knowledge that Khan describes as organizational capability, competitiveness cannot be achieved. The main problem of development is therefore not the discovery of already existing comparative advantage, but the creation of new comparative advantage through the development of the appropriate organizational capabilities.

In this sense, Khan's work is distinguishable from both Stiglitz and Hausmann and Rodrik. For Khan, subsidising the first mover for discovery or for the positive externality does not guarantee that the first mover will be able to produce something productively, especially if that first mover does not have the organisational capability to produce it effectively. This is because learning is not only about bringing in new machinery and learning how to use it, but it is also about creating entirely new organizational structures that can use the new machines to produce products of a given quality and price (Khan, 2009b). Therefore, unless firms achieve organisational capability to produce something competitively the subsidies proposed by the models of Stiglitz (1989) or Hausmann and Rodrik (2003) will not work.

The achievement of organizational capabilities through learning by doing requires a high level of learning effort by the firm. In defining effort, Khan (2009b) specifically implies the effort in learning to acquire tacit knowledge, which improves a firm's organisation of production and capability (to be distinguished from the effort of workers in the work process.) More specifically, Khan suggests firms must exert high levels of effort in trying out different organisational designs, internal management structures, inventory control systems, quality control systems (and so on) that can reduce costs and improve quality and productivity.

Khan (2009b) point outs that, “The market failure that constrains economic development most seriously is that investors cannot be sure that they will be able to enforce the levels of effort that will make this investment in learning viable” (p. 1). At the firm level, a high level of management effort is a prerequisite to creating competitive organisational capability for higher productivity. This may translate down to the individual worker level as a requirement for flexibility and effort as well, but high worker effort is not sufficient to ensure the rapid acquisition of tacit knowledge and technical capability to improve productive competitiveness.

Khan contends the problem in ensuring high level of efforts is twofold. First, external investors can only observe firms and workers’ effort *ex post*. Second, it is difficult to contract for high effort because of a potentially large number of contingencies that can affect outcomes independently of effort. This is why private financing of significant new learning of this type is rare in developing countries, and needs to be distinguished from the first-mover problem.

To address these constraints, Khan suggests that there needs to be a mechanism for financing the learning-by-doing process together with strong incentives and compulsions for significant effort, since only part of the latter requirement can be included in a formal contract. In his paper, Khan (2009b) listed different kinds of mechanisms that historically have ensured such effort. In some countries, for example, the government achieved needed effort by imposing penalties for the failure of learning *ex post*, as happened in South Korea in the 1960s, 1970s, and 1980s. In other cases like the Indian automobile industry, successful learning was achieved when governments offered large rents as *ex post* rewards with conditions that ensured that the reward could only be captured if significant organizational learning took place.

### 2.4.2. The Role of a Political State in Rent Management

A common strand running across the theoretical discussions in section 2.4.1 is the significant role of institutions and the developmental state in solving critical market failures, especially those associated with learning and effort. While Khan (2009b) stresses the importance of finding an incentive and compulsion mechanism to enforce learning, both Stiglitz (2013a) and Rodrik (2004b) explicitly contend that the state plays a catalytic and central role in correcting externalities that constrain development, especially in the industrial sector. This section of the chapter focuses on whether the state has the political capacity to implement the necessary policies to promote growth. In other words, how is the state able and willing to be independent of and to override particular interests, as well as to use that independence to adopt and implement developmental goals?

Although Stiglitz (2013a) observed that “successful developing countries learned how to manage the political economy problems,” he did not discuss how it was done other than reasserting that solving externalities in learning requires the participation of nonmarket institutions and government intervention (p. 11). Being a bit more explicit, Rodrik (2004b) contends that the details of industrial policy will depend on the political context of the developing country, such that economic reform must be “politically popular and ultimately sustainable” (p. 6). Thus, policies that work in one country may not work in another because of the specific political context that either enhances or deters policy implementation (Rodrik, 2004b).<sup>14</sup> Nonetheless, Rodrik does not develop a framework to observe different political economy models, especially those that relate to

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<sup>14</sup> In his most recent, and somewhat controversial, discussion on the issue of political economy, Rodrik (2013) criticizes political economists’ excessive focus on defeating vested interests in the implementation of economic policies. He asserts that this focus can easily divert scholars from the critical contributions that policy analysis can make.

the issues of rent and rent-seeking among powerful interests embedded within and around the state.

On the other hand, some development economists, notably Chang, Cheema, North, and Khan take it one step further from the discussion of market failure and each observe that political processes within a government could potentially deter or enhance the implementation of any policies that correct market failures. In other words, politics matters in the success and failure of implementing developmental rent policies (or industrial policies). In their respective works, they identify the interface between politics and economics, which determines how to solve the most critical problems in development. From the dimension of technological adoption and capability-building, the question is how to solve the most important problems in learning and effort, given that politics matters. In addressing these questions, Chang, Cheema, North, and Khan all put forward their own observations and analyses. The next three sections discuss these various models from the perspective of rent management.

#### **2.4.2.1. Chang and Cheema: The autonomous developmental state**

The first generation of development economists notably associated with the “Big Push” literature <sup>15</sup> (Rosenstein-Rodan (1943); Scitovsky (1954); Baran (1957); Gerschenkron (1962); Myrdal (1968); and Kuznets (1973) contends that economic development requires a developmental state: one that is capable of creating and regulating economic and political relationships in order to support sustained

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<sup>15</sup> The theory of the “Big Push” model emphasises that underdeveloped countries require large amounts of investments to embark on the path of economic development from their present state of backwardness. This theory proposes that a “bit by bit” investment programme will not impact the process of growth as much as is required for developing countries.

industrialisation (see Chang, 1999). As part of the second generation of development economists, Chang and Cheema (2002) draw on Khan (2000a, 2000b) to contend that “the presence of transaction costs imply that market imperfections cannot be addressed through voluntary contracting among economic agents, thus lending further advantage to state mediation and arbitration” (p. 393). Their model calls for an “activist technology policy” in which the state actively invests in creating dynamic efficiencies by using a combination of rents for learning, while, at the same time, managing the rent by way of conditioning them upon specified performance criterion, such as technological upgrading and subsequently exports (p. 375).

To achieve this goal, Chang (1999) argues that there is the need to reconstruct the developmental state, one that is capable of managing rents. The essential characteristics of this developmental state are autonomy, political management capability, and visionary leadership. According to Chang (1999), the state must make the goals of long-term growth and structural change as its primary goals. More importantly, it must “politically” manage the economy to ease the conflicts inflicted by rent policies while keeping track of its longer-term goals. Finally, the state is to engage in institutional adaptation and innovation so as to achieve its developmental goals. Chang (1999) devised four specific functions that such a state must perform: (1) coordination for change, (2) provision of vision, (3) institution building, and (4) conflict management.

Implicitly, Chang’s (1999) model of rent management requires strong and autonomous leadership, one that could drive the Big Push forward and overcome resistance and contestation from interests that lose out in the reform process. He proposes what the South Korean state did during most of its industrial development from the 1960s to 1980s. However, this approach to development is unachievable in most countries because the political arrangement is different in historical, social, and political

contexts and is often characterised with weak capability, fragmentation and contestation; much more so than what is seen in the South Korean experience. Hence, to convert a developing country's fragmented political arrangement into a South Korean rent management model, it most likely requires a major political and social shakeup that may be entirely unachievable. Additionally, the South Korean state-led model is not the only one that has produced growth and development. Historically, countries that did not have such an autonomous and integrated state did occasionally overcome market constraints and achieve growth, such as in some sectors in India and Thailand (see Khan, 2000a, 2009b). Chang's (1999) approach falls short in that it simplifies the complexity of rent management, the diversity of different political arrangements and the difficulties in overcoming contestations among political and economic interests in most developing countries.

#### **2.4.2.2. North, Wallis, Webb, and Weingast: Limited access order**

For North and his co-authors Wallis, Webb, and Weingast (2009), "economics is politics by other means" (p. 42). They did not view the problem of development through the analysis of market failures. Instead, they developed the conceptual framework of Limited Access Order (LAO) to interpret recorded human history. Limited access orders are defined as "orders using the political system to limit economic entry to create rents, and then using the rents to stabilise the political system and limit violence" (North, et al., 2006, p. 2). North and colleagues assert that each developing country is classified in one of the three forms of LAO: fragile, basic, or mature.

According to North, Wallis, and Weingast (2007), to catch up to developed countries, developing countries must find ways to (1) reorganize itself, (2) improve

control of violence, and (3) create a legal framework for regulating non-state organizations based on a rule of law. Based on this argument, the limitation of violence and the prevention of disorder are important for movement along the LAO spectrum before transiting to an Open Access Order (North, Wallis, and Weingast's description of advanced countries). From this perspective, rent creation and distribution (or rent management) could limit violence and prevent social disorder by motivating credible commitments among elites that they will not fight each other, since violence reduces elites' rent. In other words, "the creation and distribution of rents therefore secure elite loyalty to the system, which in turn protects rents, limits violence and prevents disorder most of the time" (p. 8). Consequently, for North, Wallis, and Weingast, rent management largely serves the purpose of maintaining and enhancing social orders and limiting violence so that developing countries can move along the LAO spectrum to achieve development. As they wrote:

The LAO gains stability when a dominant coalition emerges that provides powerful individuals and groups with incentives to refrain from violence. By limiting access, the LAO creates rents that help maintain peace. Limiting access and rent-creation is more than just service to interest groups; it is a solution to the problem of violence (North, et al., 2007, p. 42).

Their analysis highlights a significant break with the neoclassical analysis of rents because it recognises that rents can be beneficial for maintaining social and political order, which then enhances development and growth. It also stress that rent creation can be *functional* in the sense that the creation of rent may serve different

development objectives (including the possibility of correcting market failures) and thus open room for the creation of more value-enhancing rents.

#### **2.4.2.3. Khan: Political settlement**

Similar to North and colleagues, (2007), Khan (1995, 2000b) argues that rents are essential for political stability<sup>16</sup> and that we need to look at how developing countries manage different political interests, since the economic intervention carried out by a state has to be broadly consistent with the distribution of power within a political system.

Theory and evidence suggest that developing countries are more likely to make an impact on market failures if they focus on building governance capabilities that allow them to address specific market failures on a scale and in areas that are consistent with their political settlements. This is an approach for developing growth-enhancing or developmental governance capabilities (Khan, 2011, p. 2).

Unlike North et al., Khan argues that, on the one hand, there are value-enhancing rents in the economy and these rents could be created through a number of mechanisms other than LAO. On the other hand, the creation of value-enhancing rents must be consistent with the political configuration and the underlying distribution of power in society that allows rents to correct market failures and be developmental. As such, Khan points out that in addition to encouraging learning and innovation, rent policies first must be aligned with the interests that will produce the most efficient outcomes and must be shielded from the contestation of unproductive groups in ways that are themselves

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<sup>16</sup> Khan (1995) defines and discusses the political settlement, and Khan (2000b) discusses redistributive rents and how they are essential for maintaining political stability.

feasible given the overall configuration of power in the political settlement. Consequently, rents are not only an instrument for stabilising social and political order, as North et al. (2007) suggest, but can also be used to directly stimulate industrial development and technological adoption, while being consistent with the distribution of power in a developing country.

In this context, an effective rent and rent management strategy must address some of the specific structural constraints that developing countries frequently face such as weak and “inappropriate” property rights, weak incentives and compulsions for technical learning and upgrading, and political instability arising from short-term structural changes in property rights and technology adoption. For Khan (2011), the challenging issues in development and governance are to understand how, in a specific context, the management of political stability is achieved and whether feasible changes in political institutions and political organisations can strengthen political stabilisation and augment industrial transformation.

Directly related to the challenge of managing political interests for development is the role of informality nested in the social, political, and economic structure of a state and its economy. Given the weakness of formal institutions in developing countries, informality is not just ubiquitous, it could complicate or assist the implementation of industrial strategy in developing countries. The next section provides a brief theoretical review on the issue of informal institutions.

### **2.4.3. The Role of Informality in Rent Management**

As discussed in the previous sections, developing countries face serious challenges in solving market failures that constrain their growth. This is especially the

case if their political arrangements involve a significant role of informal rent allocations that can weaken the enforcement of formal institutions (Khan, 2011). This observation implies that development strategies that primarily rely on the enforceability of formal institutions are not appropriate (and would not be effective) as the primary response to correct externalities in these contexts, if the solutions did not account for the likely informal modifications in their implementation. It also implies that effective rent strategies must account for the informal institutions supported by the macro-political arrangement that is specific to a developing country. In this sense, the context of formal and informal political and institutional arrangements matter a great deal in development strategy.

Informality also plays a critical role in the analysis of rent management because it provides useful insights into the political and institutional mechanisms, which affect the outcomes of the rent. In addition, informal institutions and their dynamics also explain why and how the manner in which rents operate in developing countries is distinct from the formal structure of a country's politics and institutions. Similarly, informality also untangles the distinction between the official reasons why rents are created from what these rents are actually expected to achieve, and the actual outcomes associated with the rents. This is because powerful state and non-state organisations in developing countries that seek to create rents may not achieve their objectives through formal mechanisms alone and may significantly depend on informal mechanisms of rent creation and allocation.

While a great deal of the literature in institutional and development economics has focused on formal rules and institutions, the LAO framework gives equal emphasis to informal rules in that the limitations described in LAOs today are frequently informal (North, et al., 2007). North and colleagues (2007) assert that institutions involve more

than explicitly written rules: “They also include informal norms, behaviour, the mechanism by which the rules are enforced, and individual beliefs and expectations about how the institution and other individuals will behave” (p. 26). This definition stresses the importance of informal institutions in the enforcement of rules and rent management in developing countries.

Furthermore, North and colleagues (2007) observe that in developing countries today informal limitations on market entry and privileges are often achieved by using the formal institutions associated with open access in the developed countries: political parties, legalised property rights, and corporate organisations. In other words, formal institutions are frequently used to create informal limitations for accessing rents. These informal limitations on access to rents and privileges are deliberately imposed by the elites, and they may arise for instance from the informal ways in which the bureaucracy and corruption operate in government (North, et al., 2007).

Similarly, but viewing informality from the perspective of a social distribution of power, Khan employs a broad definition of informality. Informal institutions are all patterns of behaviour (enforced or otherwise) where the implicit enforcement mechanism does not involve enforcement by formal state organizations (Khan, 2011). Thus, “informal institutions include the operation of habits, customs, cultures and values... [as well as] rules enforced by informal agencies like mafias and patron-client organizations” (p. 12). In this perspective informal institutions include in particular all institutions where the enforcement does not involve the formal activities of the state. Even if the enforcement is done by state organizations like the police, the institution can still be informal if the enforcement agencies are acting other than in rule-following ways. This perspective on informality means that some informal institutions can indeed be attributed

to culture but the focus on non-state enforcement means that there are many other important areas of informality in developing countries.

According to Khan (2011), much of politics in poor countries is not rule-based. In fact, informal rules frequently regulate internal power structures and the competition between different types of patron–client networks. For that reason, Khan contends that the focus of rent management should include an analysis of the actual rules governing rents, even when these rules are based on the informal or non-rule-follow exercise of power. This suggests that to identify significant informal institutions or informal arrangements embedded in formal institutions, we have to begin by tracing the allocative rules that generate rents in developing countries. This may help to identify the configuration of politics and institutions that is responsible for important rent allocation decisions.

The important role of informality in development can be clearly seen in the Vietnamese experience. Vietnam is formally a Communist state, and the Communist Party of Vietnam is at the centre of the political and economic power of the country. Despite the rather simple and straightforward formal structure of the CPV, the political system in Vietnam is not unusual in having a significant informal component in its politics. A closer analysis (see Chapters 4, 5 and 6) shows that many Vietnamese formal organisations have informal characteristics and consist of a dynamic set of personal relationships, social networks, communities of common interest, and emotional sources of motivation. Informal organizations in Vietnam are also dynamic, responsive, fluid, evolving constantly, often based on trust and reciprocity, and difficult to pin down. This fluidity reflects the rapid evolution in the underlying distribution of political and social power within the elites in Viet Nam, within the Communist Party, and in the emerging economic players. More importantly, the informal organisations and institutions within

this one-party political system have a major impact on rent creation and management in Vietnam, some of which is developmental while others are growth-reducing. This impact is analysed in Chapters 4, and 5.

The review of the literature in this section supports the observation that while a state may adopt formal industrial policies by creating rents and working steadily to improve its institutional structure so as to be capable of implementing rent policies, the effectiveness of these policies may be constrained by patterns of power outside formal political and institutional structures. As a result, successful rent management strategies must account not only for the formal but also the informal political and institutional arrangements through which rents are sought, created, and managed. This is because much of the actual activities of creating and enforcing rents are in the informal relationships between organisations, between members of an interest group, and between groups. These informal dynamics are often missing in the economic analysis of development.

#### **2.4.4. Final Considerations**

In this section this thesis has provided a brief theoretical review of some development economists who have attempted to answer the two important questions set out in this review: (1) What are the most important economic problems in development, and (2) how to solve these economic problems given that politics and informal institutions matter? To answer the first question, notable economists, namely Stiglitz, Hausmann, Rodrik, and Khan provide different contentions, particularly on the issue of learning and technological upgrading using the analysis of market failures. In responding to the second question, the literature provided by Chang, Cheema, North, Wallis, Webb,

Weingast, and Khan offers important insights on the interface between politics and economics in developing countries. Chang (2011) and Chang and Cheema (1999) assert the necessity of an autonomous developmental state. North and colleagues (2002) press the critical movement along the Limited Access Order, with special attention to the limitations of violence and social disorder via rent creation. Lastly, Khan (2007) offers analysis of the underlying distribution of power in a society that is critical to generate growth and development. The final discussion of this section considers the important role of informality and how it contributes to the dynamics of rent creation and management in developing countries.

Central to the argument of this thesis is that rent management is an outcome of institutions, politics, and industry organisation, within which rents are created, allocated, and contested. As an outcome, rent management describes the process of organisational competition and transformation. The ways in which rent is managed affects the structure of incentives and pressures on the participants, which in turn determines whether they use their rent opportunities for learning, innovation and investment. As a result, the “management” of industrial policies or rent policies does not necessarily take place from above by the central government. Instead, value-enhancing outcomes can happen without any explicit plan, as the outcome of the types of rents created by the matrix of formal and informal institutions in a society. This interaction could occur laterally at the firm level, between the entrepreneurs and the political and state institutions in a developing country. As a result, the management of rents is usually an outcome of an interaction between organisations and institutions, given the configuration of formal and informal institutions and politics. Consequently, an understanding of rent management mechanisms can help to explain the types of rent that are being created and their role in resolving or complicating the critical binding constraints in poor countries.

## **2.5. Towards an Analytical Framework for Rents Management**

This chapter provided a theoretical review of some of the most important advances in research on the political economy of technology adoption, learning, rents, and rent management. It identified significant differences in the analysis of development economists such as Stiglitz, Hausmann and Rodrik, Chang, Cheema, North, Wallis, Webb, Weingast and Khan in their identification of the critical problems for development, as well as in their analytical framework for investigating the political economy solutions that are feasible for tackling these problems.

Underlying some of the discussions of the process of technological and economic development is a presumption that the process of technological change can either take place automatically or be achieved through state intervention. For some theorists, the relevant policy is simply one of providing an institutional framework to support either market liberalisation, or rents to correct critical externalities that constrain learning and upgrading. However, a fuller understanding of the process of technological change and growth in developing countries, as well as the analysis of political economy, suggests that we require a wider conceptualisation of these processes than those presented in neoclassical theories on technology and development (see section 2.2.1), or by those strands of the statist literature that examine technological upgrading based on a 'black-box' correction of market failures by a visionary and high-capability state (see section 2.4.1)

Theoretical discussions in this chapter also establish that in order to achieve growth through technological upgrading and capability-building, rent policies must not simply aim to remove constraints in the development process, but must also satisfy the

political and institutional conditions of viability in that society for effective rent management (see section 2.4.2). In addition, these conditions cannot be limited to the formal political and institutional processes, but must be taken from a wider context of *informal* political, institutional, and organisational arrangements among political and economic interests that impact rent outcomes (see section 2.4.3). From this perspective, the best policy approach is to first analyse and map the existing mechanisms of rent management. The purpose is to examine the effects of these mechanisms on learning, technological adoption, and capability-building, given the political and economic context of a specific country. Only when there is a clear understanding of a working rent management system in the specific context of a developing economy can proposals for incremental improvement be made. This thesis employs this very approach in analysing Vietnam's industrial development in Chapter 4, 5 and 6.

Furthermore, this approach offers a hands-on, practical and meaningful policy reform, rather than choosing a one-size-fit-all model (such as the South Korean development model). It is from this perspective that this thesis constructs a conceptual analytical framework in the next chapter (Chapter 3) for the analysis of rent management, which can be applied to the examination of these issues in the case of Vietnam's industrial sectors; namely textile and garment, telecommunications, and motorcycle.

## Chapter 3. **Developmental Rent Management Analysis: Learning, Upgrading, and Innovation**

### **3.1. Introduction**

In the previous chapter, this thesis demonstrated and made the case that, in order to achieve growth through enhancing the capability of the industrial sector, rent policies must not simply aim to remove constraints in the development process, but must create incentives and pressures for ensuring effort in learning, via an effective configuration of rent management. From this perspective, analytical tools must provide us methods for assessing these interactions.

Having examined the main theoretical contributions to the literature of technology adoption, rents, and rent-seeking, this chapter constructs a conceptual analytical framework for the analysis of rents and rent management. This framework is called Developmental Rent Management Analysis. DRMA provides analytical tools to analyse the larger political, institutional, and organisational dynamics that are at work and how they deliver productive rent outcomes without the presumption of an autonomous and capable guiding state. Rent management emerges from this discussion as a critical analytical instrument that explains the configuration of three important factors – politics, institutions, and industry organisation – as the fundamental source of long-term economic growth for developing countries. To do so, this thesis asks, “How does the configuration of politics, institutions, and industry organisation, create, allocate, reallocate, contest or destroy rents in developing countries?” In other words, how are rents managed in reality? Note that ‘management’ is used here as a term describing the

outcome of a potentially complex interplay of forces and does *not* imply that there is an agency ‘managing’ these rents.

This framework is based on a fundamental assertion that no one political or institutional arrangement provides exclusive access to successful rent management and developmental outcomes. In reality, a successful rent management strategy is specific to the political and institutional context of a country and its political economy. Subsequently, the purpose of employing this analytical framework is to assess the factors that drive the process of technological upgrading and capability-building in Vietnam’s transitional economy. Under this framework, this thesis specifically examines how the process of technical learning and capability-building is structured and embedded in Vietnam’s political economy, and how such a process affects Vietnam’s industrial development.

In section 3.2, the DRMA framework is introduced and its value substantiated in detail. DRMA involves four analytical steps. The first step identifies four important types of rent: learning rents, Schumpeterian rents (also known as technology rents or innovation rents), monopoly rents, and redistributive rents. This list is by no means exhaustive, but is appropriate for this rent management analysis. The second step is the assessment of the potential incentives and effects of each rent, given the political and institutional structures of the developing country. Step three analyses the configuration of politics, institutions, and industry organisations that produces specific rent outcomes. Step four examines the transformation of the firms and their industries as a consequence of this structure of rents. These steps are used to assess a number of quite different rent management mechanisms that could be identified during the Doi Moi period in Vietnam. It explains the high or low performance in three industries – motorcycle,

telecommunications, and textiles and garments – and the political, institutional, and industrial organization that underpin the differences in their performance.

### 3.2. Developmental Rent Management Analysis

The developmental rent management analysis uses the four analytical steps detailed above. For clarity, the steps are organised in order. The first step identifies the type of rent involved in the case study. The second step establishes the potential incentives and effects created by the rent. The third step analyses the configuration of politics, institutions, and industry organisations that produce the actual rent outcomes. This configuration is known as the rent configuration created by the rent management system, or rent management mechanism.<sup>17</sup> Here, the discussion involves the most substantive analysis of the DRMA framework because it investigates the political, institutional, and industry structures and how they interact to create the actual rents and the conditions under which they are available to different players. The fourth step looks at how firms and industries transform as a result. Figure 3.1 and **Error! Reference source not found.** map the steps in order, and which together constitute the DRMA framework.

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<sup>17</sup> These two phrases are used interchangeably throughout this thesis.

**Figure 3.1: The DRMA Framework**



Analytically, step three requires the most important and substantive analysis within the DRMA framework, and covers three levels of rent management mechanism (RMM). The highest level analyses the configuration of politics and institutions that describes the macro-political order; namely, the political context of rent creation and management. The second level assesses the policy and policymaking structure that generates and implements particular rents; namely, the institutional structure of rent allocation. The third level studies the structure of and boundaries between the firms and the market that create incentives and pressures for efforts; and looks at the implications of the organisation of the industry. The following sections discuss the four-step analysis in greater depth.

### **3.2.1. Step 1: Types of Rent**

In Chapter Two, this thesis argued that value-enhancing rents address certain market failures that developing countries confront, especially failures that affect the process of learning and innovation. In this context, learning and innovation rents are arguably the most important policy instruments for development, while the effects of monopoly and redistributive rents could vary greatly depending on the circumstances.

This section offers a rough illustration of the four different types of rents. For a comprehensive discussion on different types of rents, see Mushtaq Khan (2000b).

### **3.2.1.1. Learning rents**

In theory, learning rents provide the financing to enable learning-by-doing. This in turn has two important dimensions. The first is to enhance technical capability through learning-by-doing. The second involves the improvement of organisational capability. Conceptually, learning rents are rents that are given *ex ante* to target learning and technological progress in a specific industry or sector, though they could in principle also be allocated *ex post* as a prize (Khan & Blankenburg, 2009). Learning involves not just copying the operation of existing technologies, but also significant amounts of adaptation to local conditions. In other words, learning can involve a substantial amount of innovation to adapt technical and organizational capabilities to the technology. The success and effectiveness of learning can in principle be measured in terms of outcomes like productivity growth or exports and in some developmental states learning rents were allocated with conditions for specified achievements within a certain period of time.

Learning rents can be intended and unintended, depending on whether they are the product of specific learning, technology acquisition or industrial policies. Intended learning rents are created by policy makers with the objective to induce technological adoption. Thus, it is a rent created for learning, though the outcome of the rent is not necessarily guaranteed. As such, whether this rent will in fact operate as rent for learning is an analytical issue that must be examined in terms of the institutional conditions and proven in terms of the empirical evidence. In the Vietnamese experience, a number of intended learning rents, in the end, operated as monopoly or redistributive rents.

Unintended learning rents are also important because rents that had other intentions can sometimes also have unexpected learning outcomes. In other words, the outcome of the rent (the learning effect) can emerge from an accidental configuration of factors. For example, a rent may be created for redistributive purposes to assist individuals in a particular region or firms of a particular type. However, if this rent emerges in a configuration of political and institutional factors that induce the recipients to use the opportunity to enhance their organizational and technical capabilities, the result may be the achievement of learning effects. We would describe these as unintended learning rents. Generally, any type of rent can have many different effects, regardless of the purpose of its creation.

#### **3.2.1.2. Schumpeterian, or innovation, rents**

Schumpeterian rents reward innovation, often in the form of tax breaks, subsidies, patent protection, and so on. Innovating firms have an advantage over their competitors because they often develop a better product or a less expensive way of manufacturing an existing product, which traditional firms cannot instantly copy. Innovative firms can thus earn a rent. This rent is generated because, with new innovations, firms will either have a cost or quality advantage over its competitors, which allows them to earn a higher return compared to the next best alternative (Hausmann & Rodrik, 2003). If an innovation can be rapidly copied and, thus, become easily produced and sold, innovators can be discouraged to innovate. There are three important properties of effective innovation rents. First, the Schumpeterian rent signals the possibility of a significant prize for future innovators, providing them an incentive to innovate. To do so, the state may protect innovators through intellectual property rights that provide additional rents for profit

making. Second, the time horizon of protection is an important factor for ensuring desirable outcomes of Schumpeterian rents. Khan (2000b) argues that, on the one hand, because the process of innovation takes time, is risky, and requires effort and investment, Schumpeterian rents should ensure sufficient super-profits to induce innovative activities, and therefore, they should not be removed too quickly. On the other hand, such rents should also not be allocated for too long, beyond the necessity of inducing further innovations, because their survival has costs for consumers and after a point innovation rents can become indistinguishable from monopolistic or redistributive rents (Khan, 2000b). Finally, Schumpeterian rent can either be ex post, such as patent-based rents, or ex ante, such as university research grants, and the most effective variant again depends on the characteristics of the innovation and the institutional context in which such rents are managed.

### **3.2.1.3. Monopoly rents**

Monopoly rents for firms emerge as a result of entry barriers, which allow firms operating in protected markets to charge higher prices for their products. Entry barriers can be natural, which is when the technology of production involves large economies of scale, such that a single large producer can undercut newcomers. Entry barriers can also be state-made, based on exclusive protective rights or licensing for a particular producer. In the neoclassical form, the creation of monopoly power leads to a general reduction in welfare (Abbott & Brady, 1991). Khan (2000), however, contends that, “even in the extreme case of monopoly rents created by government protectionism to favour cronies, their dynamic effects are not always clear cut” (p. 31). In some cases, there may be genuine economies of scale in these industries, and super-profits may create incentives

for greater investment, which could counter, to some extent, the static inefficiency and X-inefficiency effects<sup>18</sup> of the monopoly. In other cases, monopoly rents may indeed signal lost output and growth opportunities (Khan, 2000b). Schumpeterian rents can often be difficult to distinguish from monopoly rents because innovators often enjoy a *temporary* monopolistic position in the market for their innovation, which ends when the protection is removed or when the patent has expired. Conversely, monopolists often try to justify their monopoly on grounds of innovation and investment. As long as monopolistic power is monitored and temporary, Schumpeterian rents can create incentives for technical progress and new innovation. As a result, the overall effects of monopolies vary from case to case and depend on specific technologies, sectors, and firms (Khan, 2000b).

#### **3.2.1.4. Redistributive rents**

Unlike learning or Schumpeterian rents, redistributive rents serve various diversified purposes other than developmental goals. The purpose of the rent is to redistribute benefits usually on political grounds. For example, redistributive rents can be an important tool for maintaining political stability. The growth implications of the overall structure of redistributive rent can be either positive or negative. Khan (2000b) points out that the economic effect of redistributive rents can have two negative components. First, redistribution can have direct welfare implications because transfers may affect incentives and investible resources in sectors that are effectively taxed.

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<sup>18</sup> The efficiency due to higher costs under monopolies is sometimes described as X-inefficiency, to distinguish it from the allocative inefficiency, which relates to the static analysis.

Second, the rent seeking for redistributive rents can create political instability if the allocation of redistributive rents is continuously changing as a result.

However, Khan (2000) also points out that redistributive rent may positively provide the benefited individuals or groups with the incentives and opportunities to utilise the rent for economically productive activities. In addition, investment decisions depend on political stability, which could be achieved through redistribution. In some countries, transfers were associated with rapid capital accumulation, development, and growth, such as in the case of Malaysia. In other countries, conversely, the result has been large-scale theft and transfer of resources to foreign banks by cronies and politicians.

Because redistributive rent underpins both early capitalist accumulation and the political processes of maintaining order and legitimacy, the implication of redistributive rent – either negative or positive – is much more complex than the analysis suggested within the neoclassical literature of rents, and rent-seeking. Furthermore, the pattern of redistribution illustrates how well competing groups are organised and work together or otherwise. As a result, rent-seeking activities that result in redistribution and transfers can explain why transfers could be growth-enhancing rather than growth-reducing. Therefore, it is the pattern of economic and political distribution that matters much more for our analysis than the fact that transfers take place.

#### **3.2.1.5. Unintentional effects of rents**

An important distinction between the neoclassical and the heterodox approach to rents and rent-seeking is the fact that neoclassical economists argues that all rents are damaging regardless of their outcome (Rajagopalan, 1996). Heterodox economists, such

as Khan (2000b), however, maintains that the reason a rent is created may have nothing to do with how it eventually operates, and thus rents and rent-seeking open up space for the possibility of both value-enhancing and value-reducing rents.

A rent may create accidental effects if it operates differently from its intended purpose. As such, whether a rent gives rise to certain effects may have little to do with the *intention* of the rent. For example, the World Trade Organization's Multi-Fibre Arrangement (MFA) was originally created to protect the textile and garment manufacturing in the United States. However, it had an unintended effect of encouraging learning in developing countries through its increased demand of garment exports from countries that lacked these capabilities. Therefore, the MFA created unintentional learning rents for some countries.

Many rents have unintentional effects that are extremely important. For example, a monopoly rent could cause accidental effects if, instead of providing monopolistic power to firms, it operates as a learning rent. The unintended effects, especially the productive ones, often emerge from the configuration of politics, institutions, market competition and the existing capability of the firm, which provide the incentive and pressure for learning and innovation. Many redistributive rents may also have learning benefits that can support growth-enhancing outcomes in the industrial sector.

### **3.2.2. Step 2: Potential Incentives and Effects Derived from the Rent**

To assess the second element, the DRMA analysis seeks to identify what potential incentives and effects the rent actually induced, regardless of the rent's initial purpose. In other words, what was the effect of the rent despite the original intention of its creation? While knowing the reasons that were declared by interested parties at the

creation of the rent is important, it is unnecessary in the analysis of the effects of the rent in this step because the question under consideration is the effect of a particular rent under specific institutional and political conditions. Did the rent offer a firm incentives and opportunities as well as compulsions, for example, in terms of time or financial resources to acquire a new technology, to learn how to use it, and to set up the production for a new product with the new technology; or did it motivate unproductive activities?

One important aspect to remember is that although a rent is created with a specific development purpose, it may produce a number of different incentives or potential usages that are completely different, if not contradictory, to the original intention. Second, the incentive created by a rent is context-specific because whether a firm will expand investment to acquire new learning and technology is dependent on whether it foresees a profit possibility from investment expansion and whether it is under pressure to use the opportunity productively. Third, in most cases, rents can potentially create either positive or negative incentives for the recipients. For example, a particular rent could provide incentives to spend resources to keep the rent without doing anything productive, or investing in research and development that could lead to new innovations. The actual outcome will depend on the wider institutional, political and market conditions that determine the incentives and compulsions of the firms receiving the rent.

### **3.2.3. Step 3: The Configuration of Rent Management**

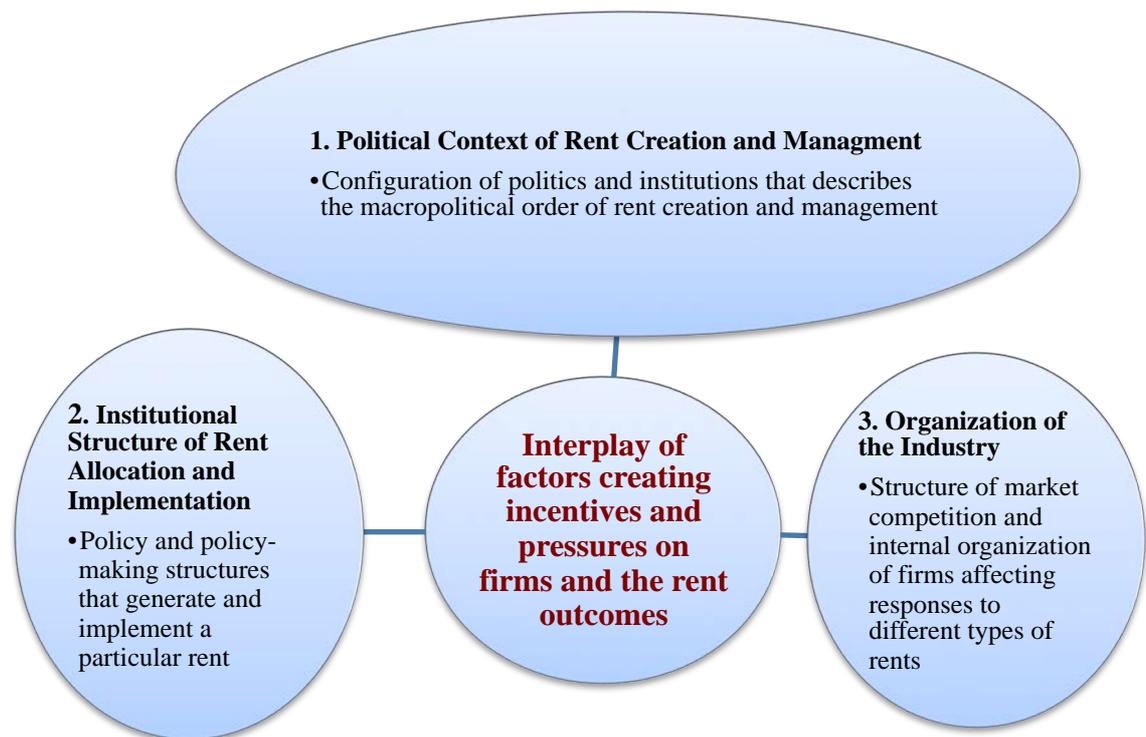
The third analytical step is the most involved element of the DRMA analysis and it examines the configuration of factors that describes the 'rent management' of the particular rent being examined. Here, the rent management mechanism is defined as the

ways in which politics, institutions, and the organization of an industry are structured both formally and informally, and how they actually interact to create certain sets of incentives and pressures for rent-receiving firms or individuals, for instance to upgrade their technical and organisational capability. In a development context, rent management is usually the outcome of a set of institutional and political pushes and pulls; the term “configuration” refers to this. Therefore, the rent management mechanism defined here is not a system that necessarily is under the control and monitoring of the state and its agencies as suggested by Chang (1999) and Chang and Cheema (2002), but instead is a *dynamic configuration* involving formal and informal institutions and organisations that influence firms and political actors to generate either growth-reducing or growth-enhancing outcomes. In the context of technological adoption and capability building, this outcome could be either a new technical and organisational capability or redistribution of rents toward unproductive activities, such as asset speculation.

In step 3, the rent management analysis evaluates the internal and external incentives and pressures that are placed on firms that directly or indirectly influence their industrial performance and therefore the outcomes eventually associated with the rent (which we describe in short as the rent outcome). The incentives and pressures discussed here do not necessarily stem from the state, but could come from the configuration of a number of forces; for instance, market competition, the time horizon available to make a profit under alternative strategies, and the market supply and demand conditions for the product produced by the firm. The incentives and pressure for performance are critical factors because if a rent is created without effective incentives and pressures for capability enhancement, there is no guarantee that the rent recipients will pursue high-effort strategies for acquiring technical and organizational capabilities or engaging in

innovation, or new production. Figure 3.2 outlines the three levels of the rent management analysis in a development context.

**Figure 3.2: Illustrative Map for Rent Management Analysis**



Rent management analysis first inquires into the macro-political context of rent creation and management (balloon #1 in Figure 3.2). The second level of analysis evaluates the institutional structures that generate and implement the particular rent (balloon #2). The third level of the analytical hierarchy looks at the interaction between the firm and the market and the market structure (balloon #3). These levels of analysis are now discussed in detail in the following sections.

### **3.2.3.1. Political context of rent creation and management**

As mentioned earlier, DRMA inquires into various mechanisms and how they interact to generate incentives and pressure for performance. Implicit and explicit in this DRMA framework is how politics plays a central role in rent management. This is the first level of analysis. This role is critical for three important reasons. First, politics matters because it is through political processes that economic institutions are adjusted, specific policy selections are chosen and performance is subsequently monitored (Moon & Prasad, 1998). Second, by mobilising powerful groups in society, political organisations compete for rents or attempt to affect the management of rents by forming coalitions with other political organisations. Third, as institutions and politics shape rent policies and firms' performance, the pressures created by rent-seeking, policy choices and firms' performances can also trigger political feedback, reshuffle political alliances, or induce new institutional design and rent policies. For these reasons, it is essential to assess how the formal and informal political organisations are structured, and the ways in which they create and allocate rents. In essence, we need to understand two separate issues about the political conditions of a developing country. The first issue that we must understand is how political organisations are actually structured, both formally and informally. The second issue that we must understand is how they formally and informally interact to create and manage rents. This knowledge will provide the crucial understanding of the political dynamics embedded in the political economy of an industry and an economy.

Most importantly, the political context of any rent management system describes the specific configuration of the politics and institutions that make up the macro-political order in which rent creation and allocation are being organized. In this context, politics and institutions interact in a number of ways. On the one hand, the balance of political forces determines the ways in which formal and informal institutions operate to create

and manage rents. On the other hand, political mobilizations and struggles can change the political order and this can transform the ways in which rent-managing institutions operate. Therefore, the first task for an analysis of rent management is to describe the configuration of politics and institutions that describes the macro-political order.

### **3.2.3.2. Institutional structure of rent allocation and implementation**

The second level of analysis is to understand the policy and policy-making structure that generates and enforces particular rents. In this thesis, institutions are defined as rules, both formal and informal, such as those which shape the authority structures of firms, or the rules allocating public resources to them both formally and informally (Moon & Prasad, 1998). Institutional rules may be formal, for instance, legal codes and statutes, or informal political and practices allocating resources and managing their allocation based on political bargaining, norms and group values. Although it is not a focal point of this analysis, it should be noted that cultural elements and ideology could also impact on both economic and political institutions. For example, elements of the Confucian tradition reflect deeply in the Vietnamese formal and informal social, economic, and political norms.

Institutions and institutional structures matter a great deal for the rent-seeking processes because they determine how rents are formally and informally created. They also set the rules for rent-seeking by determining who can seek rents and how the rent-seeking processes work. Here, the institutional conditions that are relevant to the rent management analysis are the formal and informal rules through which rents are actually created and implemented. For example, the analysis may include:

- What are the policy instruments through which rents are created?

- How does the government intervene in the credit market, in land allocation, and in tax policies to promote industrialization and how do these policies create rents?
- How significant are these rents and how are they allocated?
- What are the formal and informal rules of allocation, continuation and management of the rent?

Answers to these types of questions provide information for the analysis of the formal and informal institutions that create and implement rent policies.

In understanding the structure of rent allocation, the informal rules are critical, perhaps more so than the formal rules, because many of the rules that compel actual performance and efforts are informally agreed upon among individuals and groups based on a set of informal values. Here, the analysis seeks to know:

- What are the informal rules or agreements between the interests that are involved in the creation and maintenance of particular rents?
- How do these rules and agreements come into place, and how are they implemented?

It should be noted that the question of how particular informal rules *emerge* is very different from the question of how they *operate* in practice, and those are different from the question of the *effects* of these informal rules or norms on the efficacy of particular rents. Our focus will be on operation and effects.

### **3.2.3.3. Organisation of the industry**

Thus far, we have described the analysis of the political and institutional mechanisms that create and implement rents within the DRMA framework.

Subsequently, DRMA must also consider the organisation of the industry, which is defined as the structure of market competition and internal organization of firms affecting responses to different types of rents. This is the third level of analysis. In this context, the description of the organisation of an industry includes looking at factors such as (1) structure of market competition, (2) type of firm ownership, (3) the type of technology needed for upgrading and (4) the initial capability of the firms and workers in that sector since this can determine the feasibility of learning particular technologies, skills and expertise. Of particular importance is the degree of competition between firms that determines the disciplining pressures of the market.

The structure of market competition matters because the effort put into learning or innovation with any given rent allocation depends on the competitive environment in which the firm finds itself, which in turn depends on factors such as the size of the firm in relation to the market, the minimum efficient scale of production; market concentration<sup>19</sup>; the uniqueness of the products<sup>20</sup>; entry barriers<sup>21</sup>; and the degree of vertical integration.<sup>22</sup>

On the one hand, the level of competition in both domestic and international markets could support or inhibit investment and efforts to achieve new technical skills and technology. Similarly, changes in the international and domestic market structures, for instance, contraction in demand for goods, could provide new opportunities or constraints for industries. For example, the global financial crisis in 2008 caused a large-scale recession in the developed world, which in turn severely slowed growth in the Asian economies because of weakened international demand for consumer goods.

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<sup>19</sup> Market concentration is defined as the distribution of production within the industry or market power of firms measured by market shares.

<sup>20</sup> The uniqueness of products relates to the level of product differentiation.

<sup>21</sup> Entry barriers are those that place potential entrants at a disadvantage.

<sup>22</sup> Vertical integration is the extent of the upstream-to-downstream integration of production.

Strategies for investment and learning that may have been viable in a growing international market may turn out to be unviable in the new context.

The organization of the industry also has to take into account the structure of firm ownership, whether a firm is public, private, or jointly owned by public and private owners. When a firm acquires a formal rent, it usually makes certain commitments for performance because the rent was very likely meant to help it overcome certain constraints in achieving capabilities, upgrading, or innovation. The structure of firm ownership has important implications for the acquisition of rents and the capability and incentives of the firm to deliver on its commitments. For instance, in the late 1990s, large Vietnamese SOEs, especially general corporations received most of the rents devised for industrial upgrading, while there were very limited rents created for the private sector. In addition, the Vietnamese government was also more active in channelling foreign contracts and joint ventures with foreign investors to large SOEs. In this case, the rent management largely involved the interaction between SOEs and the state in a (restricted) market economy. Hence, the type of firm ownership matters a great deal in the allocation, implementation and management of the rent.

In addition to the market structure and types of firm ownership, the type of technology required for upgrading and its level of sophistication, matched with the firms and workers' learning abilities, also matter a great deal. As Lall (2004) points out, the process of gaining technological mastery in a new setting is not instantaneous, costless, or automatic, even if the technology is well diffused elsewhere. Lall asserts:

The learning process is highly technology specific since technologies differ in their learning requirements. Some technologies are more embodied in equipment while others have greater tacit elements. Process technologies (like chemicals)

are more embodied than engineering technologies (machinery or automobiles), and demand different (often less) effort. Capabilities built up in one activity are not easily transferable to another. Different technologies involve different breadth of skills and knowledge, some needing a narrow range of specialization and others a wide range (Lall, 2004, p. 12).

Because technology transfer and upgrading can only occur where there is successful identification of the right type of technology, which a country is capable of learning and absorbing, choosing the appropriate type of technology to adopt is particularly crucial. The selection of inappropriate technology may have economic and social costs, and it would slow the process of ramping up capabilities. For example, a technology that is becoming out-dated may cause a developing country to lose its competitive advantage over its competitors. However, attempting to adapt a more sophisticated technology, which does not match with the learning capacity of the firms and the workers, could also be wasteful. In this context, the initial technological capabilities of firms determine the most appropriate technologies for adoption. As a result, a major task of DRMA is to identify the type of technology available, and to assess the level of technological capability of the firm and how such capability fits into the process of technological upgrading in each of the sectors.

#### **3.2.3.4. International institutions and agreements**

Within the DRMA framework, international institutions, along with the home country's commitment and privileges to its various bilateral trade agreements and its WTO membership, can play critical roles in rent management. This is because

globalisation, while it opens unprecedented opportunities for countries to engage in the world economy, poses profound challenges to less developed countries' rent strategies by raising the cost of implementing rent policies and reducing the space for devising industrial or rent policies at national levels. For instance, intellectual property restricts the use of knowledge, and thus raises the cost of innovation (Stiglitz, 2008). In the context of globalisation and integration, trade agreements, which are forms of formal international institutions, have drastically changed the nature of rent policy in developing countries over the last three decades. For late developers, the policy options for industrialisation have been curtailed by various trade obligations and these have curtailed the policy instruments (rent strategies) that could stimulate learning and innovation.

This is in contrast with the Asian Tigers' industrial experience. In the 1960s, 1970s, and 1980s, a number of East Asian countries heavily utilised rent policies in the form of subsidies as a major instrument of their industrial strategy. The use of subsidies to target new learning and technological upgrading was widespread. Governments in these countries, such as Taiwan and South Korea, targeted the development of certain industries and products through the supervision of the Industrial Development Bureau, a unit of the Ministry of Economic Affairs in Taiwan and the Economic Planning Board in South Korea. Such an option would be deemed illegal under the WTO today.

Another example of a subsidy is the localisation requirement<sup>23</sup>, which had been used by both the Vietnamese and Chinese governments before they became members of the WTO. After Vietnam's accession to the WTO, local content requirements were not permitted, and thus are no longer a policy option for Vietnam and other late developing countries. While China continues to succeed in using its market power to force

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<sup>23</sup> A localisation requirement, or local content policy, implies a government has a requirement that there must be a certain percentage of local contents, or materials, in a final industrial product. This requirement is in violation of the WTO's agreement.

technology transfers from FDI to local businesses, Vietnam has largely failed in its strategy of offering incentives to foreign technology providers to transfer significant technologies to local partners, either through negotiation with foreign investors or through other means of technology adoption (see Chapter 6).

Often, time-bound preferential trade agreements with less developed countries – such as the MFA benefits for Vietnam in the 1990s and the preferential garments quotas that Vietnam (and other poor countries) were offered by the European Union in 1992 – are important formal international mechanisms that both created rents and provided incentives and pressure for learning. These arrangements offered less developed countries either enumerated quotas or quota-free access for some lines of garment when relatively more advanced developing countries faced quota restrictions. They also offered preferential (low) tariff rates to some less developed countries while advanced countries faced higher rates. As a result, significant rents were created from this international arrangement. A combination of institutional and political conditions created these *trade-related rents*, and a combination of incentives and compulsions (because the rents were limited) enabled and ensured learning among, for example, Vietnamese garment manufacturers.

### **3.2.3.5. Examples of rent management mechanisms**

The list below illustrates some important factors, which, in different combinations, can create the incentives and pressure for rent recipients to perform, especially to achieve technological adoption and capability-building. In this context, the rent is created in response to specific market failures faced by investors. This list provides a rough guideline, and is by no means an exhaustive list of conditions.

1. Time horizon: For a learning rent to be effective in inducing learning, it has to be available over a sufficient time horizon, such that investors have enough time to invest in new machines, new organizational capabilities and to acquire new skills to raise productivity and quality to the competitive level. This factor is especially important if the investment requires extra time to master new technology. In principle, rents that come with a time horizon must ensure that the time horizon is neither too short nor too long. It should be only sufficient to give investors the time to achieve technical and organisational capability.
2. Loss of rent and other future benefits: If the political and institutional configuration ensures that firms are sure to lose their rents over time, this can create strong pressures to invest and achieve new learning to boost their industrial capability. This loss of future rents or benefits must be substantial enough that investors and firms are pressured to take advantage of the rents that they are currently receiving to achieve new competitiveness, in order to sustain their current profits into the future.
3. Initial capability: Rent recipients must have initial technical and organisational capabilities that are sufficiently high to make the capability development strategy viable, given the nature of the technology, the gap with competitors, and the amount and time horizon of the rents that are available. For example, to transfer a new dyeing technique to domestic textile manufacturers, the firms must have the basic technical understanding about dyeing in order to absorb the new knowledge.
4. Market competition: Market competition increases pressure to upgrade if there is a gradual opening up of the market. For example, a firm is pressured to learn when rents are temporary and the gainer can only take advantage of it for a period of time before new entrants are allowed to enter the market. The opening up of the market

could be due to formal institutions, such as signing a BTA with another country, or a change in government policy; for example, allowing more licenses to be issued or it could be an informal understanding with competing firms or agencies. In essence, the compulsion to raise productivity could come from competition gradually being opened up so that the learning firm or industry has to raise productivity and competitiveness to survive. On the other hand, a high level of competition from the outset can destroy incentives for learning effort because the time horizon for raising competitiveness may not be sufficient to make such a strategy viable.

5. Other informal pressures: Some of the informal pressures are speculative but it is extremely important for a rent management analysis to investigate the types of informal pressures or arrangements that may exist, such as:

- the holding power of the informal network within the political and economic system to which the firm belongs: this can determine its perceived capability to protect its rents, and may affect its strategies for productive effort versus investment in maintaining its holding power through its network;
- the pressure from this informal network on the firm to perform so as to maintain the holding power of the network, to retain rents, and to seek new rents: sometimes the network itself may want the firm to become productive quickly, to generate profits that the network needs to maintain its power;
- personal and emotional incentives based on cultural and social values;
- the informal rules of benefit-sharing from rent outcomes among individuals or groups in the network can have important consequences: if the firm managers are the residual claimant they may have a greater incentive to put in effort than if they are involved in other types of surplus-sharing arrangements within the informal rent allocation network;

- the corporate culture can sometimes have important implications for efficient rent outcomes. For example, based on its military background, Viettel –the state-owned, and largest mobile phone provider in Vietnam - operates its business in an uncommonly disciplined working environment, much more so than other private and foreign businesses in Vietnam;
- a system of formal and informal checks and balances among rent seekers or interest groups can sometimes help to prevent poor performers from permanently capturing rents and blocking efficient performers from achieving new capability and better productivity. Such a system can help to allow rents to achieve better outcomes.

The significance of this analysis for policymaking is that, for historical, social, and political reasons, even if emerging economies could not follow the South Korean model of development, which requires an autonomous and strong leadership of the state, rents can still produce developmental outcomes if there is a combination of factors that influence firms' incentives and pressures to invest in new technologies and capabilities when they receive rents. For instance, if investors have a sufficient time horizon (condition 1), and if market competition is limited but growing such that firms can reap benefits from investments in new learning and technology (condition 4), and if the bureaucrats and the politicians who created the rent exert pressure for performance (condition 5), then rents in that sector are likely to achieve a positive outcome.

In reality, however, most sectors satisfy only some of these conditions. For instance, they may have a long enough time horizon (condition 1), but not enough pressure from elsewhere, i.e. the market, to boost learning and innovation (condition 4 or 5). Therefore, even as rents are received, investors in the industrial sector may choose

not to increase investments, despite the rents. Or where there is neither a good time horizon nor the compulsion to increase productivity, the availability of rents for firms could result in speculative activities, especially in the real estate market or in the stock market. In that case, firms neither produce nor commit to long-term investment, as they will look only to capture short-term and speculative profits. Industrial capability-building would be non-existent.

Data from my fieldwork in 2011 suggests that there are very few industrial sectors in Vietnam that satisfy sufficient conditions for ensuring productivity growth or competitiveness using the rents that are available to them. Even where the conditions are satisfied, the combination that produces positive outcomes may not be sustainable; for example, there may be insufficient time to make changes (see Chapter 6). However, where conditions have been met, Vietnam's economy has experienced strong outcomes in both technological adoption and innovation, along with increases in productivity and growth (see Chapter 4).

#### **3.2.4. Step 4: Firm Transformations and Rent Outcomes**

In this section, the fourth step – the potential effects of the rent are compared with the actual outcomes. A rent management system produces three possible outcomes. In the first scenario, the rent allocation raises investment but it does not produce long-term benefits because productivity does not increase. In other words, an initial increase in production is largely due to input expansion, not improvements in technical and organisational capability. This strategy does not usually result in sustainable growth outcomes. In the second scenario, rent raises both investments and productivity through learning and upgrading, which results in sustainable long-term growth. In the third

scenario, rents are captured or redistributed by unproductive interests, such as firms, investors or managers, and thus are not used appropriately. In this case, there may be no growth at all, or growth in damaging speculative activities.

Because this thesis is largely concerned with technological adoption and industrial capability-building, it especially focuses on whether, in the end, rents operate as learning rents or as innovation rents. Again, the outcome can be completely different from the original intention of the rent, since the original intention may never be fulfilled.

### **3.2.5. DRMA Wrap-up**

Throughout section 3.2, the analytical framework for a rent management analysis, namely DRMA, has been laid out. This framework is based on a fundamental assertion that no one combination of political and institutional arrangements provides exclusive access to successful rent management and developmental outcomes. In reality, a successful rent management strategy must be specific to the political and institutional contexts of a country and its political economy. To understand the factors that either drive or hinder successful rent outcomes, DRMA employs a four-step approach (see Figure 3.1 and Table 3.1; for examples, see Table 3.2). First, it identifies the rent. Second, it establishes the potential incentives and effects given the existing institutional and implementation structures of the rent. Third, it analyses the configuration of politics, institutions, and industrial organisations that produce rent outcomes (see **Error! Reference source not found.**). Finally, it assesses and explains the growth-enhancing or growth-reducing outcomes. This framework thus provides an analytical approach to understand rent management mechanism in a developing country irrespective of the policy intention. It also points to the reality that rent management strategies, which result

in high productivity outcomes, only take place in a handful of sectors where there are effective structures of incentives and pressure to force the rent recipients to perform. The DRMA framework also allows analysts to evaluate the outcome of rents and to suggest areas for changes where rent management could be more effective, although this is not the primary focus of this thesis.

**Table 3.1: DRMA Four-Step Approach**

<b>Step 1: Identify the Type of Rent</b>	<b>Step 2: Identify Incentives and Opportunities that the Rent Creates</b>	<b>Step 3: Analyse the Configuration of Factors Describing the Rent Management Mechanism</b>	<b>Step 4: Assess the Outcomes of the Rents</b>
Monopoly Schumpeterian Learning Redistributive	- Are developmental or damaging incentives created by the rent?	<p><b>1. Political Context:</b> the configuration of politics and institutions that describe the macro-political order of the rent</p> <p><b>2. Institutional Structure of Rent Allocation:</b> the formal and informal policy and policy-making structures that create and implement the rent</p> <p><b>3. Industry Organisation:</b> structure of market competition, type of firms' ownership, and initial capabilities of the firms</p>	- Identify the outcomes - Analyse how outcomes emerge given the configuration of rent management

**Table 3.2: Examples of DRMA**

<b>Benefits</b>	<b>Effects</b>	<b>Incentive / Pressure</b>	<b>Outcomes</b>
<ol style="list-style-type: none"> <li>1. Access to land</li> <li>2. Access to credit</li> <li>3. Access to business licenses</li> </ol>	<p><b>Positive</b></p> <ol style="list-style-type: none"> <li>1. Opportunity for effective learning</li> <li>2. Incentive for innovation</li> <li>3. Output expansion</li> <li>4. Increase scale of production to achieve economies of scale</li> <li>5. Learning new capabilities or innovating</li> </ol> <p><b>Negative</b></p> <ol style="list-style-type: none"> <li>1. Redistribution, transfers within and across groups</li> <li>2. Prevention of market entry of competitors</li> <li>3. Monopolisation</li> </ol>	<p><b>Incentives</b></p> <ol style="list-style-type: none"> <li>1. Sufficient profit margins to justify investments</li> <li>2. Financing of loss-making period while learning takes place</li> </ol> <p><b>External conditions</b></p> <ol style="list-style-type: none"> <li>1. Market competition</li> <li>2. Time horizon</li> <li>3. Loss of rents and future benefits</li> </ol> <p><b>Internal pressures</b></p> <ol style="list-style-type: none"> <li>1. Consequences of failure</li> <li>2. Formal and informal pressures compelling the delivery of certain outcomes</li> </ol> <p><b>Other factors</b></p> <ol style="list-style-type: none"> <li>1. Capability of firm to perform</li> <li>2. Check-and-balance system to constrain inefficient rent seekers.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rent raised investment; did not produce long-term benefit (productivity not increased)</li> <li>2. Rent raised investment and productivity through learning and innovation (leading to sustainable long-term growth)</li> <li>3. Rents captured or redistributed by interests; no output expansion or productivity increases</li> </ol>

### 3.3. Conclusion

The claim in the mainstream literature on technology adoption, rents, and rent-seeking is that to achieve good outcomes there should be no rents or rent-seeking<sup>24</sup> (Buchanan, et al., 1980; Krueger, 1974; Posner, 1975; Tullock, 1967). In reality, not only is rent-seeking ubiquitous in developing countries, policy makers are under constant influence and pressure from rent seekers. In many cases, politicians receive some of the

<sup>24</sup> This is not to be confused with rent outcome. In the Krueger-Posner argument, rent outcome is a negative deadweight loss.

rents they create and indeed depend on these rents to maintain political stability and the ruling coalition. However, even in cases of corruption, rent-seeking does not necessarily produce unproductive outcomes and the benefits of rent policy are not always entirely destroyed. This thesis argues that the real problem for development is not rent-seeking, but rather that the interests of powerful groups run contrary to the collective interest of society. Here, the solution to this problem does not necessarily require a strong autonomous state to guide, discipline, and coordinate the public and private sectors through the strategic allocation of resources or rent policies, as argued by some development economists such as Chang and Cheema (2002), and Stigitz (1989, 2013b). Rather, this thesis posits that the answer lies in understanding and mapping both successful and less successful instances of rent allocation within the existing rent management mechanism and to examine whether incremental policy changes can help to improve outcomes given the contracting failures, market imperfections, and constraints the country faces in different sectors.

The central utility of the DRMA framework is to help analyse inductively how the three sets of factors – politics, institutions, and industry organisations – affect the structure of *incentives and pressures* that ensure firms' effort towards acquiring technical and organisational capability. This is based on the premise that successful rent management primarily depends on the formal and informal political and institutional arrangements to produce incentives and pressure for learning and upgrading. In this context, while rents are created for a variety of purposes, the rent outcome, whether good or bad, depends on the configuration of these three factors of rent management that, in many respects have important formal and informal elements. In essence, DRMA enables a broader understanding of the various factors – political, institutional, and economic – at play in the process of economic development, including its technological dimension. It,

therefore, allows for a better understanding of how and why developing countries succeed or fail to industrialise and to catch up.

In the next three chapters, this thesis applies the DRMA framework to three industrial sectors in Vietnam – the textile-garment, telecommunications, and motorcycle industries – and assesses for each sector how the three factors of rent management affect the structure of incentives and pressures that ensure effort in learning, upgrading, and innovation. The objective is to uncover the dynamics and processes that drove technological upgrading and capability-building in Vietnam's transitional economy.

## Chapter 4. The Telecommunications Industry: A Leap of the Giants

### 4.1. Introduction

After the embarrassment caused by the debt scandals of two large state-owned conglomerates – the Vietnam Shipbuilding Industry Group in 2010 and the Vietnam National Shipping Lines in 2012 – the Vietnamese government now often cites its (new) favourite child, Viettel, as an example of Vietnamese industrial success. The Vietnamese government is also proud that the telecom industry has transformed itself from a technology receiver to a telecom service exporter (see Table 4.1). Overall, the telecommunications industry provides a unique case of industrial success in Vietnam given its rapid growth rate and transformation. In just over a decade and half, the telecom industry has transformed from a monopolistic industry dominated by one state-owned enterprise, VNPT, to a diversified market with nine mobile phone operators in 2011<sup>25</sup> and a sustained average growth rate of 35.5 per cent per year between 2006 and 2010, as reported by the Ministry of Information and Communications (MIC) (2011). In 2010, Viettel was not only the largest mobile phone operator in Vietnam, but it also provided telecom services to Cambodia, Laos, Haiti, Mozambique, Peru, East Timor, and Cameroon, and it earned nearly VND 12.55 trillion (USD 600 million) revenue in its overall foreign markets in 2012 (Kien-Thuc, 2013).

Table 4.1 demonstrates that Vietnam's export of telecom services increased approximately 38 per cent between 2010 and 2012, from VND 11.89 trillion (USD 576 million) to VND 16.34 trillion (USD 794 million). The market for telecom services also expanded at 38 per cent in the same two-year period.

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<sup>25</sup> There were seven operators as of early 2013.

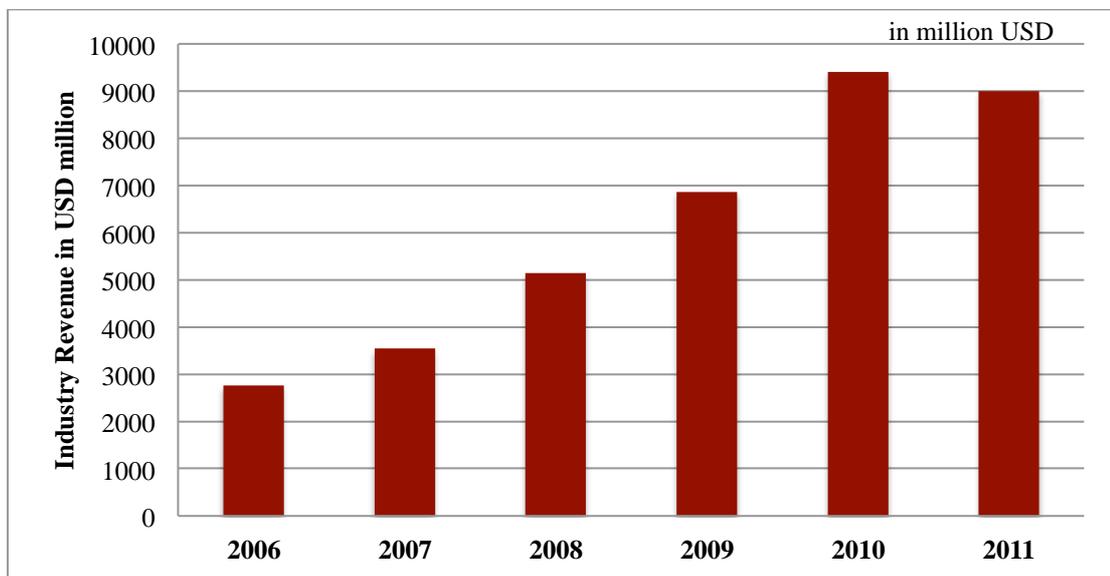
**Table 4.1: Vietnamese Import–Export of Telecommunication Services**  
(in USD million)

	2010	2011	2012 (estimates)
<b>Total Market Size</b>	5,200	5,980	7,176
<b>Total Local Production</b>	5,363	6,167	7,400
<b>Total Exports</b>	576	662	794
<b>Total Imports</b>	373	429	514

*Source:* The statistics are unofficial industry estimates compiled by the U.S. Department of Commerce (2012).

Figure 4.1 below demonstrates the impressive growth in revenue of the telecom sector in Vietnam since 2006, including mobile phone service, landline phone service, and Internet service.

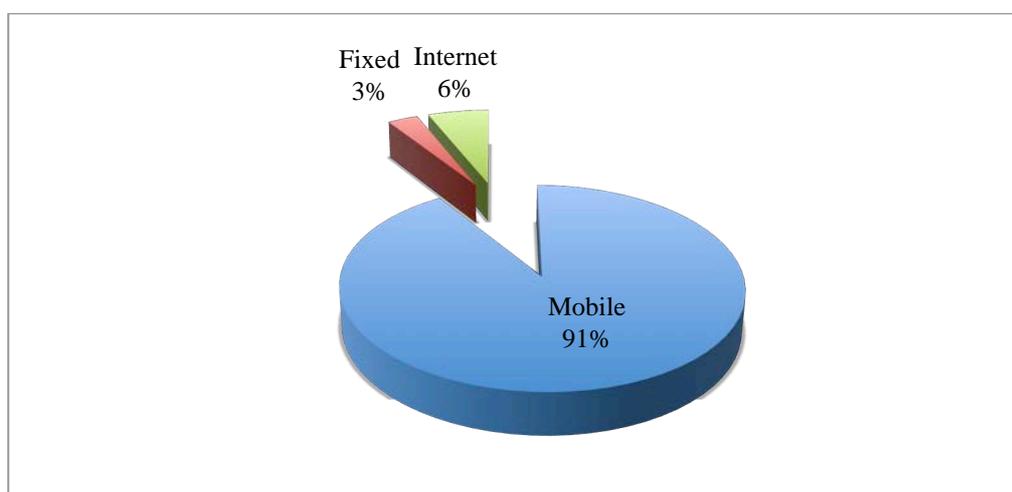
**Figure 4.1: Total Revenue of the Telecom Sector in Vietnam Between 2006 and 2011 (in USD millions)**



*Source:* Adapted from MIC (2011, p. 48)

In 2009, Vietnam was one of the world's top 10 countries in terms of information and communications technology (ICT) growth, and it was predicted to remain on that list for the next five years, according to Research and Markets Report (2009). Figure 4.2 provides an overview of the market share for each type of telecom service in the Vietnamese market. The figure shows that the mobile market is the country's most dynamic telecom sector, with an average growth rate of 80.6 per cent between 2005 and 2010, reaching 153.7 million subscribers and a penetration of 172.3 per cent of the market by the end of 2010. Between 2008 and 2009, the revenue from mobile phone services increased substantially, while fixed-line telephone revenues decreased. In 2010, the number of mobile phone users accounted for 89.4 per cent of all telephone usage in Vietnam. The Vietnamese, like many people worldwide, are now using mobile phone service more than fixed telephone service.

**Figure 4.2: Market Share by Types of Services in 2012**



*Source: MIC (2012)*

Table 4.2 illustrates the high growth rate of revenue in the telecom sector between 2006 and 2010. In the table, total revenue from landline phone, mobile phone, and Internet services grew rapidly between 2006 and 2009. Among all three types of telecom services, landline phone services slowed down in 2008 while Internet revenue grew gradually; revenue from mobile phone services grew fastest between 2006 and 2009.

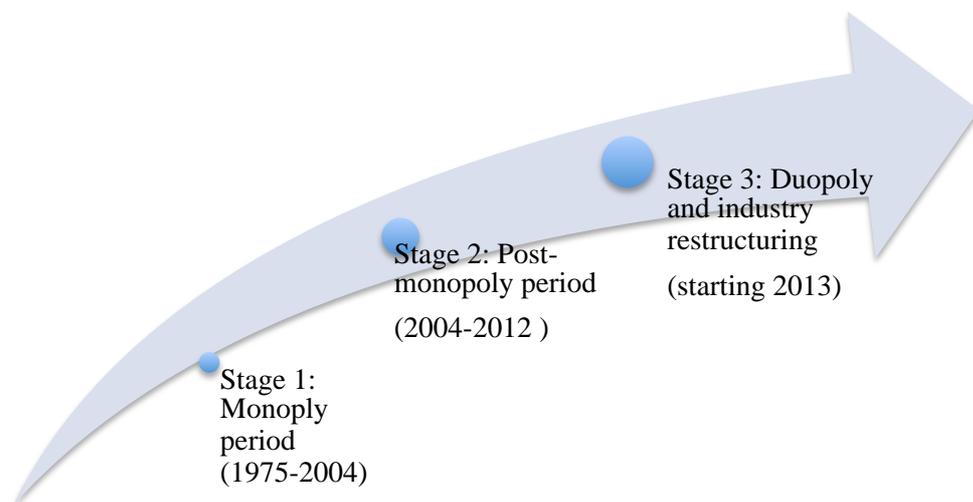
**Table 4.2: Total Revenue in the Telecom Sector, 2006-2011 (in USD millions)**

Total Revenue and Growth Rate						
Year	2006	2007	2008	2009	2010	2011
<b>Total Revenue</b>	2769.3	3552.98	5144.14	6867.55	9410.79	approx. 9000
<b>Growth by % year-on-year</b>	Base year	28	44	33	37	-4

*Source: Author's own calculation based on data from MIC (2011)*

Conceptually, this author divides the development of the telecom industry into three stages, as seen in Figure 4.3. In the first stage, between 1975 and 2004, the industry consisted of just VNPT, which held a monopoly. Case study 1 reviews the development of the industry during this period. The launch of S-Fone in 2003 and Viettel's mobile phone service in 2004 marked the beginning of the second stage – the post-monopoly period, which lasted until 2012. There were both major development and industrial upgrading that took place during this period, which are analysed in all three case studies. In the third stage, starting in 2013, the telecom industry started to experience some major shake-ups, including a merger between Electricity of Vietnam Telecom (EVN) and Viettel, and the departure of S-Fone and three (out of four) foreign partners from Vietnam's mobile phone market.

**Figure 4.3: Stages of Vietnam's Telecom Industry Development**



*Note:* The monopoly is VNPT. The duopoly is VNPT and Viettel.

This chapter draws on three case studies to analyse the industrial development of the telecommunications industry. In applying the DRMA framework, the purpose of the analyses is to identify the configuration of rent management that drives industrial

upgrading and capability-building of this industry and how the Vietnamese government's management of rents has contributed to learning efforts and the rapid pace of industrialisation in the sector. The rent management analyses throughout this chapter identify that the configuration of rent management that was growth-enhancing for the industry was based on a number of factors. Some of the notable factors are the following.

First, there was strong political will from the top leaders to develop the telecom industry in order to upgrade the infrastructure for Vietnam's industrialisation (all three case studies). Second, the case study of Viettel (case study 2) highlights the role of informality in rent creation and allocation – the Ministry of Defence (MoD) provided military resources to Viettel as rents—and in motivating Viettel leaders to measure up to VNPT. Third, while market competition by itself could not help operators overcome market failures in land, infrastructure, and capital that constrained the development of the industry, especially in its early stages, it was value-enhancing in that it pressurised capability-building and upgrading among the operators (all three case studies). Finally, pressure of liberalisation of the telecom market was an effective time horizon factor for Viettel and VNPT to concentrate on learning and enhancing their competitiveness while the Vietnamese market was still relatively free from foreign competition (case studies 1 and 2).

The outline of this chapter is as follows. Section 4.2 provides an overview of the telecom industry's background and historical development. Section 4.3 identifies a number of constraints in the sector and how some operators overcame them during the initial phase of their development. Section 4.4 illustrates case study 1, which analyses VNPT's monopoly and the opening of market competition among SOEs after the monopoly was ended. Section 4.5 consists of case study 2. It assesses Viettel and its success in building industrial capability. In section 4.6, case study 3 examines the

adoption of 3G technology into the Vietnamese market, while section 4.7 reviews the changes that took place in stage 3 of the industry's development. Lastly, section 4.8 offers implications for the developmental rents management strategy, as well as options for the industry to move forward in its current phase of development.

## **4.2. Background of the Telecommunications Industry**

Until the late 1980s, the telecommunications sector in Vietnam was characterised by strict state regulations and a state-run monopolistic market, leading to tight control of all telecom services. Mobile phone service was non-existent. The year 1986 marked the start of the Doi Moi reform programs, the gradual privatisation (locally called equitisation) of some SOEs, the corporatisation of other SOEs, and gradual liberalisation in the telecom sector.

The state-run Directorate General of Posts and Telecommunications was the sole public telecommunications provider in Vietnam. In 1992, Decree 115/HDBT changed the Directorate General into the General Company of Posts and Telecommunications (VNPT), an SOE that was given the state monopoly for operating the national telecommunications network. Also in 1992, Decree 03/1992/ND-CP established the Directorate Department of Posts, which oversaw both the posts and the telecommunication sector. The Directorate Department of Posts was made the strategic, regulatory, and development agency directly under the direction of the Ministry of Information and Communication. In 1993, as the result of the country's first attempt to speed up development, the national information technology (IT) policy was developed, which reflected the plans for gradually liberalising the entire economy (Boymall, Martin, & Lam, 2007). This IT plan was codified in the landmark 1993 Resolution 49/1993/ND-

CP on the Development of Information Technology. The law aimed at building the foundation for information infrastructure to meet the increased demand for information in state management and socioeconomic activities (Boymall, et al., 2007). In 1995, the prime minister issued Decision 249/TTg, which made VNPT a general corporation – a term which refers to a state-owned conglomerate in Vietnam. VNPT continues to offer all types of telecommunications services, and is active in nearly every province and city in Vietnam.

In 1995, Vietnam joined the Association of Southeast Asian Nations (ASEAN) and witnessed the normalisation of trade relations with the United States. This eventually led Vietnam to sign a bilateral trade agreement with the United States in 2001. The US–Vietnam BTA had an important telecommunications provision, which set out the agenda to liberalise the Vietnamese telecommunication industry. Also in 1995, Sweden’s Comvik Group, with its powerful financial and technological capabilities, signed a business cooperation contract (BCC)<sup>26</sup> with VNPT, forming MobiFone, the first mobile phone provider in Vietnam. This cooperation marked a milestone, as foreign investors and foreign mobile phone providers made their official presence in Vietnam’s telecom industry (Thuy-Nga, 2010). MobiFone has been the leader in Vietnamese mobile phone service since its inception.

In 1997, VinaPhone, a second mobile network also owned by VNPT, was established with 100 per cent state capital. Though VinaPhone did not cooperate with any foreign partners, VNPT used the experience learned from Comvik to model VinaPhone’s operation after MobiFone’s. In 2004, Vietnam’s first Strategy of ICT

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<sup>26</sup> A BCC is a written agreement between a foreign investor and a Vietnamese partner in which the parties agree to cooperate to undertake certain business activities in Vietnam and to share the revenue or profits arising from such activities. No separate legal entity or company is established, and there is no limitation on liability for participants (Allens, Arthur, & Robinson, 2010).

Development, approved by Prime Minister Khai Van Phan, stated a targeted yearly growth rate for the ICT sector of 25–30 per cent. Although the Vietnamese ICT market could not keep the up the growth rate of 33 per cent achieved in 2004, it still reached 20.9 per cent growth rate in 2005, as compared to 9 per cent in Asia and 7.1 per cent in the rest of the world (Danish Federation of Small and Medium-Sized Enterprises & Axis Research, 2006).

In 2002, Decree 90/2002/ND-CP renamed the Directorate General of Posts and Telecommunications to the Ministry of Posts and Telecommunications, and established its responsibility. The decree structured the ministry such that it was to manage all activities related to posts, telecommunications, ICT, electronics, Internet, radio transmissions, electronic frequencies, and the nation's information infrastructure. In 2003, as a part of Vietnam's compliance with the US–Vietnam BTA, the Vietnamese government officially abolished VNPT's monopoly by opening the sector to competition in all telecom services. In 2007, the Ministry of Posts and Telecommunications was again renamed, this time becoming the Ministry of Information and Communications, though only the name changed, as it retained all of its previous responsibilities and authority. In addition, the MIC became responsible for the management of television broadcasting, newspapers, and publications, which used to be the function of the Ministry of Culture and Information. The creation of the MIC reflected the Vietnamese government's new rationale and direction for its ministries, moving from managing multiple sectors and areas of the economy into one industry in order to simplify the government's structure of administrative management.

In 2006, the National Assembly passed an ICT law, which governs information technology and telecommunications business activities. In 2009, the National Assembly passed a revised ICT law, this time to govern radio frequency and electronic satellites. In

2007, a major producer of semiconductor systems for mobile phones and automobiles, Japan's Renesas Electronics, opened a research centre in Tan Thuan Export Processing Zone in Ho Chi Minh City; the centre was, and continues to be, dedicated to developing sophisticated multifunction system-on-chips (Runckel & Associates, 2010). In 2009, the first 3G phone service was launched by VinaPhone, followed by MobiFone two months later. In November 2009, the Telecommunications Law and the Radio Frequency Law were passed by the XII National Assembly, and each took effect in July 2010. In 2010, the number of mobile phone subscribers in Vietnam was five times higher than landline phone owners, and Vietnam became one of the countries with the highest growth rate in mobile phone usage (Runckel & Associates, 2010). By 2012, there were four major 3G providers – VinaPhone, MobiFone (both under VNPT), Viettel, and Vietnamobile (under Hanoi Telecom) – and Vietnam's telecommunications sector continued to expand, even though the mobile phone market had become saturated and started to cool down at the end of 2011.

#### **4.2.1. Profiles of the Telecom Providers**

In 2012, the landscape of the telecom industry in Vietnam faced incredible transformation. Three out of four foreign investors left the Vietnamese market. These included Russia's Vimpel Communications Group (VimpelCom), a joint-owner of Beeline Network, which left Vietnam in April 2012. Before Vimpelcom, Comvik (of MobiFone) and South Korea's SK Telecom (of S-Fone) also left the market. Of these three, only Comvik made a profit from its investment in Vietnam. An equally important event that changed the industry's structure was Viettel's acquisition of EVN, which reduced the number of mobile phone providers in the telecom industry from nine to eight

in early 2012. This number decreased again to seven at the end of 2012, and it may be down to six by the end of 2013 because of the possible departure of Saigon Postel.

However, in the middle of 2011 there were nine telecommunications operators in Vietnam. Of these, Saigon Postel and Hanoi Telecom were regional with some geographical restrictions<sup>27</sup> on their operations; Indochina Telecom and Vietnam Television Corporation were each mobile virtual network operators; and Vishipel only provided maritime communication services. Nearly every Vietnamese telecommunication company was a state-owned enterprise with one exception, which was Hanoi Telecom. There was also cross-ownership among carriers, such as Saigon Postel with VNPT. In early 2012, EVN merged with Viettel, and Indochina Telecom had its license revoked, leaving the industry with seven operators. A quick overview of these seven is provided below. Both VNPT's and Viettel's profiles are discussed in much greater depth later in the case studies.

1. **Vietnam Post and Telematics (VNPT)** was the first major SOE operating in nearly every telecommunications field except maritime telecommunication. Until early 2000, VNPT enjoyed a monopoly in the industry. This situation, however, has evolved over the past 10 years; in 2012, there were eight landline operators, seven licensed mobile phone operators, and a number of Internet service providers. VNPT's profile is detailed in the first cases study below.
2. In 1995, **Military Electronics Telecommunications Corporation (Viettel)** received its license to enter the telecom market, breaking VNPT's monopoly. It is 100 per cent owned and operated under the MoD, and it provides landline, long

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<sup>27</sup> The restrictions only apply to landline phone service. These two providers could provide mobile phone service nationwide.

distance, and IP-based telecommunications; lease lines; Internet services; and mobile communications. Currently Viettel is the second largest telecom provider in Vietnam, after VNPT. Viettel's profile is detailed in the second case study below.

3. Also in 1995, **Saigon Posts and Telecommunications Service Corporation (Saigon Postel)** obtained a license to become the first enterprise to be equitized with a number of large shareholders. VNPT holds 18 per cent of the total shares of Saigon Postel. **S-Fone**, a subsidy of Saigon Postel, ventured with a South Korean consortium, SK Telecom, in a BCC to provide Vietnam's first code division multiple access (CDMA) mobile phone service. The venture was largely unsuccessful with limited subscribers because of the high cost of CMDA mobile phones and its limited model variation.

After 10 years of investing in the Vietnamese telecom market, in 2010, SK Telecom withdrew from S-Fone. On 9 August 2011, the Vietnam government allowed S-Fone to divert from a BCC to a joint venture. However, S-Fone was unsuccessful in both finding a joint-venture partner and changing its technology from poorly performing CDMA technology to Global System for Mobile Communication (GSM) technology (TalkVietnam, 2012b). According to Intellasia (2012), in 2012, S-Fone faced capital distress from three consecutive years of profit loss (2008-2010). By late 2012, S-Fone was highly indebted and was unable to pay its workers' salaries in its Hanoi branch for several months (Theo NLD, 2012).

4. **Electricity of Vietnam Telecom (EVN)** is wholly owned by the state-run Electricity of Vietnam Group. It provides landline, long distance and IP-based telecommunications services, lease lines, and mobile communications. In 2006,

EVN launched the second CDMA service; it had a modest market share of several hundred thousand subscribers, though by 2010, EVN was riddled with debt. Its revenues from sales and service provision saw a steady decline from a profit of VND 93.8 billion (USD 4.4 million) in 2008 to VND 8.3 billion (USD 390,000) in 2009 (Tuoitrenews, 2011a). In 2010, EVN reportedly incurred a total loss of VND 1.026 trillion (USD 48.27 million) (Tuoitrenews, 2011a). In 2011, the government approved a merger between EVN and Viettel, despite an offer from Hanoi Telecom (once in a consortium with EVN) of a cash buyout (Tuoitrenews, 2011a). The merger was completed on 1 January 2012.

5. **Hanoi Telecommunications Company (Hanoi Telecom)** is the first telecom carrier with private investors. It provides services for landlines, but is limited only to areas in Hanoi, and to long distance and IP-based telecommunications, lease lines, and mobile communications. In July 2004, Hutchison Telecom – a Hong Kong-based telecom company – entered into a BCC with Hanoi Telecom. In February 2005, Hanoi Telecom was granted an investment license by the government for the project, and in January 2007, it launched CDMA service under the brand name HT Mobile. While it offered a superior network, the market uptake was greatly hampered by both the lack of affordable CDMA handsets, in particular those with the Vietnamese language option, and the trend of leading manufacturers to scale back handset development for this market.

In March 2008, it received government approval to convert from CDMA technology to GSM technology. After the successful conversion, it launched GSM services in April 2009 under the new brand, Vietnamobile (Nguyen, 2009). Hutchison invested VND 20.6 trillion (USD 1 billion) in this new mobile phone network. Vietnamobile surpassed the one-millionth-customer mark within six

months of launch, mostly in the prepaid segment. In December 2011, Vietnamobile became the last of the four operators to offer 3G service in Vietnam (Thu-Hien, 2011). In 2012, it became the fourth largest mobile phone operator, with 8 per cent market share.

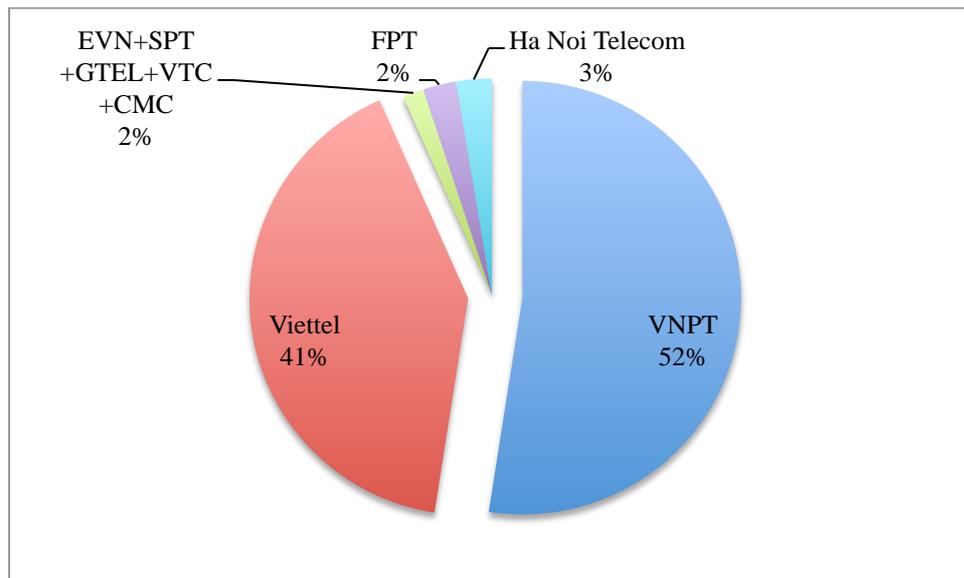
6. Founded in 2007, **GTel Mobile Joint Stock Company (Gtel Mobile)** is under the Ministry of Public Security. It established a joint venture with Russia's VimpelCom in July 2008, which gave birth to Beeline Network in July 2008. In targeting the low-income and student populations, this company not only offered cheaper rates, but also free calls within its Beeline Network. On April 2012, VimpelCom unexpectedly announced its withdrawal from Vietnam, immediately selling its 49 per cent share for VND 929 billion (USD 45 million). Although the actual amount of loss was not announced, VimpelCom had thus far invested VND 9.56 trillion (USD 463 million) into the Beeline Network (TalkVietnam, 2012a). Due to VimpelCom's departure, GTel renamed the Beeline Network to Gmobile to reflect the change in ownership. In 2012, GTel Mobile had a modest market share of 3.21 per cent, making it the fifth largest mobile phone operator in Vietnam.
7. **Indochina Telecom (Dong Duong Telecom)** was granted a license in August 2009. Unlike the other mobile networks, Indochina Telecom set up its network and mobile services without being granted a wireless frequency, making it a mobile virtual network operator. Indochina was supposed to share 3G network facilities with military-owned Viettel and to roam using local mobile networks that employ GSM technology. In 2012, however, the MIC revoked Indochina Telecom's license because of its sluggish implementation of services.

8. In June 2010, the MIC gave **Vietnam Television Corporation (VTC)** a license to operate as a mobile virtual network operator. VTC provides mobile phone services but does not have its own licensed frequency allocation of radio spectrum, nor does it have the infrastructure required to provide mobile telephone service. VTC is the newest telecom operator in the industry, though in 2012, the MIC signalled that if it does not launch its services within the prescribed time limit (which so far has not been made public), its license might be revoked.
9. **Vietnam Maritime Communications and Electronics Company (Vishipel)**, a 100 per cent owned subsidiary of Vietnam Maritime Corporation, provides only marine communications services.

#### **4.2.2. Market Structure**

The market structure of the telecommunication industry has transformed rapidly over the last decade, considering that in 1993 VNPT held a market monopoly. While the nine providers were actively competing and operating in mobile phone and landline service in the late 2000s, in 2013, the industry formed a duopoly with VNPT and Viettel taking over 90 per cent of the market. In 2012, VinaPhone, together with its sister company MobiFone – both owned by VNPT – had a subscription base that accounted for nearly 48 per cent of the market share (approximately 70 million subscriptions). In 2012, Viettel reached 58.9 million subscriptions, and accounted for 40.76 per cent of the market share measured in revenue. GTel Mobile and Vietnamobile together have a little more 10 million subscriptions (Anh-Quan, 2013). Figure 4.4 illustrates the market shares of major telecom providers in all of the telecom segments

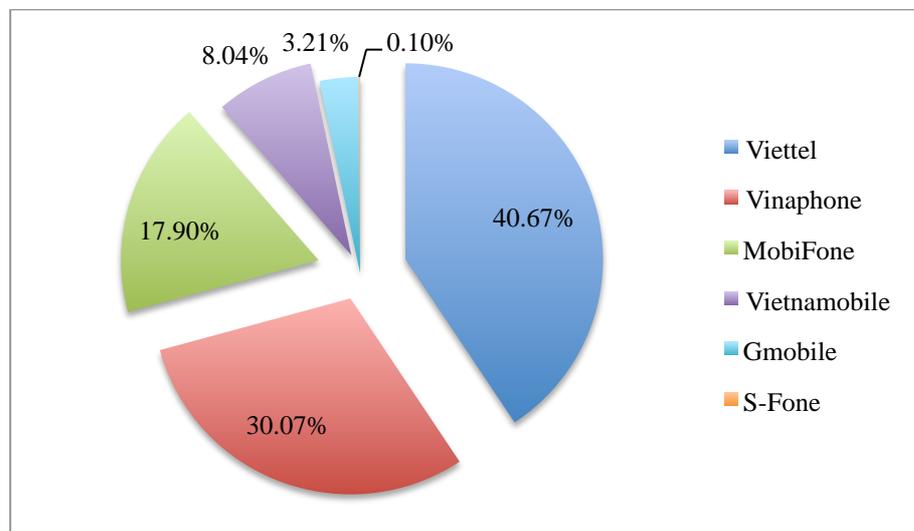
**Figure 4.4: Market Share of Operators in all Telecom Segments**



*Source:* MIC (2012). CMC is CMC Telecom. EVN is Electricity of Vietnam Telecom. FPT is FPT Corporation. GTEL is GTel Mobile Joint Stock Company. SPT is Saigon Postel. VNPT is Vietnam Post and Telematics. VTC is Vietnam Television Corporation.

Starting in the late 2000s, mobile phone service became the fastest growing and most profitable segment of the telecom industry in Vietnam. Figure 4.5 shows each operator's market share in the *mobile phone* market, with the duopoly of VNPT and Viettel assuming the largest market shares (a total of 88.64 per cent). At its inception, it was anticipated that the consortium of EVN and Hanoi Telecom would bring a greater breadth to Vietnam's telecommunications market, but it failed, forcing EVN to merge with Viettel in early 2012.

**Figure 4.5: Market Share of Mobile Phone Operators in 2012, Measured in Revenue**



*Source:* MIC (2012). VinaPhone and MobiFone are subsidiaries of VNPT. GTel Mobile runs Gmobile. S-Fone is owned by Saigon Posts and Telecommunications Service Corporation. Vietnamobile is under Hanoi Telecom.

The trend in 2012 of consolidating unprofitable operators with successful larger ones means that the mobile phone market will eventually be scaled down to three or four operators. The merger between EVN and Viettel has led the way, with more restructuring planned over the next few years, according to an official at the MIC (interview, 2011).

#### **4.2.3. Competition among the Providers**

When the government broke VNPT's monopoly, competition among mobile phone operators quickly escalated. Operators reduced tariffs and offered cheap mobile phone packages to capture subscribers who could easily switch to a different network

since, in the prepaid market, mobile phone users do not have contract with a carrier for a specified period. Low mobile rates and wide network coverage were key factors to attract subscribers. For instance, in mid-2009, Beeline Network offered the lowest call charge with VND 1,199 (USD 5 cents) per minute for out-of-network calls and free 20 minutes for in-network calls per month (Vietnam Financial Review, 2009). As soon as Beeline made this promotional debut, other mobile operators took action to remain competitive. Starting on 1 August 2009, Viettel and MobiFone offered promotional programs for prepaid subscribers in which they received an additional 20 per cent of the purchased credit value to their account (Vietnam Financial Review, 2009). Meanwhile, VinaPhone subscribers were exempted from charges when making in-network calls lasting up to 20 minutes, and for 50 short text messages. In addition, the four market leaders – Viettel, Vinaphone, MobiFone, and Hanoi Telecom – each offered prepaid subscribers free-of-charge call periods within any given day, and sent gifts and held lotteries for subscribers (Vietnam Financial Review, 2009). Given the fierce price competition in the first half of 2010, Viettel was forced to focus on promotions because it saw its market share decrease by 2 per cent. At the same time, VinaPhone and MobiFone, not wanting to miss the chance to gain more market share or worried that they would lose the customers they already had, again reduced their mobile tariffs.

Prices in the telecommunications sector have continuously declined by more than 11 per cent per year based on a report issued by the General Statistic Office in August 2009 (Vietnam Financial Review, 2009). In 2011, an interviewee who worked at the MIC told me that mobile charges in Vietnam were at below-average levels as compared to other countries in the region. It is predicted that based on the current trend, mobile charges in Vietnam could be among the lowest in the world by 2015 (Vietnam Financial Review, 2009). Within this relentless competition, Vietnamese mobile phone users

benefit from low-cost minutes, upgraded services, and advanced (3G) technology at a low price. However, this aggressive price competition also raises questions of whether telecom providers will subsequently divert profits away from technological upgrading that could be used to boost service quality and build new competitive advantages, such as vertical integration with the ICT sector. Evidence from my fieldwork suggests that this scepticism is well grounded. For instance, a low profit margin was the reason for the withdrawal of foreign investors, who had been the source of advanced technology and expertise for the sector (interview, 2011).

#### **4.2.4. Structure of Ownership**

When it comes to private and foreign investment in the telecommunications sector, Vietnam has a restrictive climate. While the country's Law on Investment, implemented in 2005, permits both joint ventures and 100 per cent foreign-owned enterprises, neither were allowed in the telecommunications sector during the 1990s and 2000s. Since the opening of the industry, most telecom providers are SOEs, except for Hanoi Telecom. These SOEs, owned by different branches of the government, entered the telecom market as they became aware of profit potentials. Meanwhile, private investments, especially foreign, were channelled through the SOEs (Toulmin & Smith, 2007). This was done by offering licenses only when there was a BCC between Vietnamese and foreign providers. It was not until 2008 that a foreign telecom operator – Russia's VimpelCom – was permitted to enter into a joint venture with GTel Mobile. Coming into the Vietnamese market in the form of business corporation partners, foreign investors had strong incentives to bring modern technology and, more importantly, tacit

knowledge in order to develop successful business ventures in Vietnam. Indeed, they helped to substantially improve technological and servicing capability of the industry.

For instance, in the late 1990s, the telecom infrastructure in Vietnam was outdated, functioned poorly, and in urgent need of renovation. Foreign investors were much needed for capital, network development, and modernisation. Through the first BCC, VNPT – the sole state-owned provider at the time – worked with Sweden’s Comvik to revamp Vietnam’s telecom infrastructure. Initially, Comvik brought VND 4.17 trillion (USD 200 million) in investment capital, market expertise, technology, managerial skills, and new business practices that developed MobiFone, the first mobile phone network in Vietnam (VietnamNet, 2012). The venture marked a turning point in industrial upgrading and capability-building of the sector and was the necessary first step for the country to move towards industrialisation and modernisation.

Nonetheless, the BCC model has a few shortcomings, especially to foreign investors, as compared with a joint venture or a 100 per cent foreign-owned model. First, many BCCs do not permit foreign investors to regain long-term asset value from their investments. Second, BCCs require separate management approval for each of the partners, thus raising transaction costs. Third, the short duration of the contract – no longer than 10 years initially – and the uncertainty of renewals together limit the time that foreign investors can recoup their investment. Finally, the high rate of depreciation drives costs of services higher in the short term (Nguyen, Pham, & Gullish, 2005). Given the high risk in investment, most foreign investors initially tend to do business with SOEs that have land, as well as political and financial supports from the government. By June 2005, of the nine BCCs entered into with Vietnamese counterparts in the sector, only one was signed with a non-VNPT company, as reported by Nguyen and colleagues

(2005).<sup>28</sup> In Comvik's case, because VNPT was a monopolist at the time and Vietnam was a large potential market, Comvik was confident of retaining high profit margins to make up for its investment risk.

In essence, the Vietnamese government's restriction of foreign investment through BCCs successfully allowed the Vietnamese telecom providers to attract foreign capital, technology, and expertise while not fully relinquishing the sector to foreign competition. A BCC not only prevents foreign providers from competing directly with local firms, but it also forces direct foreign transfer of technology, expertise, and capital to state-owned providers. As a consequence, the model provides large learning rents to SOEs to acquire learning and upgrading. Indeed, a great deal of learning has taken place since 1995, when VNPT signed the first BCC with Comvik, which brought mobile phone service and, later, Internet service to Vietnam. Similarly, GTel, S-Fone, and Hanoi Telecom all received substantial foreign investments and technology transfers from their foreign counterparts.

#### **4.2.5. Changes in the Structure of Foreign Ownership**

In compliance with its WTO commitments, the Vietnamese government gradually opened up its telecom industry to foreign investors by increasing the percentage of foreign ownership in BCCs and in joint ventures. By July 2010, a single foreign investor was allowed to hold a maximum of 49 per cent of the chartered capital in a telecom service. The rule was part of the decree drafted to guide the execution of the Telecom Law, which went into force in 2010 (Vietnam Business News, 2010). In fact, the 2010 law was overdue in adherence to Vietnam's commitment to the WTO, as it was

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<sup>28</sup> For a complete description of the BCC model, as well as its pros and cons, see H. T. Nguyen et al. (2005).

supposed to be in effect in 2007. Hai Hong Pham, Director General of the MIC's Telecommunication Department, clarified that Vietnam's Telecom Law did not prohibit a telecom operator from selling its network to its peers, provided the total foreign stake did not exceed the 49 per cent (Vietnam Business News, 2010). In 2012, under its WTO commitments, Vietnam fully opened its telecommunications market to foreign operators, who, by this time, could enter the Vietnamese market as 100 per cent foreign-owned businesses, meaning that they were allowed to provide telecom services in Vietnam without having a Vietnamese business counterpart. Nevertheless, as of March 2013, the MIC had yet to grant any licenses to a 100 per cent foreign-owned telecom operator.

### **4.3. Constraints in the Telecommunications Industry**

In section 4.2, this thesis provided an overview of the telecom industry, including the chronology of the industry's development, structure of the market, and current events that shaped the development of the sector. These events included competition among the local and foreign players and the changing structure of ownership, which induced transfers of international technology and expertise to major SOEs in Vietnam. This section provided a review of the outstanding market failures that constrained the industry. Given the government's strong support to the sector and its policies that promote learning and upgrading, a few operators, notably VNPT and Viettel, were able to overcome these constraints to become major players in the market. However, as the industry emerges from what has been a short period of successful development and moves towards convergence with the ICT sector, many of these constraints have resurfaced and now impose new challenges to Vietnam's telecommunication providers.

#### 4.3.1. A Capital-Intensive Industry in an Underdeveloped Credit Market

The first major investment issue in the telecom industry is the extremely high initial fixed costs to set up an infrastructure, such as transmission stations, trunk lines,<sup>29</sup> and backbone<sup>30</sup> networks. This is because setting up the stations, lines, and networks requires a substantial amount of equipment and land, which is often hard, if not impossible, to acquire in Vietnam. In addition, telecom equipment is much more capital-intensive than equipment in other sectors, such as in the garment manufacturing sector. Therefore, the cost to set up the infrastructure across the coverage areas and to buy telecom technology from foreign providers requires considerable capital investment. Even in developed countries such as the United States, United Kingdom, and Germany, there are a small number of telecom providers, partly because of the high investment costs in infrastructure and technology.

The second major issue is the underdevelopment of the Vietnamese credit market, which limits private investors' access to credit for major investment projects. As the credit market is inadequate in Vietnam, lending for big investment projects often requires the government's guarantee for loans. This type of guarantee has traditionally only been offered to a few SOEs, and is mostly unavailable to private businesses. Consequently, the lesson on how Vietnamese telecom providers overcame market

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<sup>29</sup> A trunk is a line or link designed to handle many signals simultaneously and that connects major switching centers in a communications system. The transmitted data can be voice (as in the conventional telephone system) data, computer programs, images, video, or control signals.

<sup>30</sup> A backbone is a larger transmission line that carries data gathered from smaller lines that interconnect with it. At the local level, a backbone is a line or set of lines that local area networks connect to for a wide area network connection, or within a local area network to span distances efficiently (for example, between buildings). On the Internet or other wide area networks, a backbone is a set of paths that local or regional networks connect to for long-distance interconnection.

imperfections in the credit market is particularly instructive. VNPT solved the problem by signing the first BCC with Comvick, in which the Swedish partner provided the SOE with capital, technology, and know-how to set up the first mobile phone network in Vietnam, through the legal entity MobiFone. Later, other SOEs followed in VNPT's footsteps to set up BCCs with foreign partners; for example, S-Fone partnered with South Korea's SK Telecom; Hanoi Telecom signed up with Hong Kong's Hutchinson Telecom; and GTel Telecom joined with Russia's VimpelCom.

Viettel is the exception to this, as it used a flexible and dynamic approach in tackling the issue of capital shortage. First, instead of acquiring a foreign partner, Viettel used both support from the government and MoD to obtain credit from state banks, especially from the Military Commercial Joint Stock Bank. Second, it leveraged its supports from the government and the MoD to arrange delayed payments to foreign vendors for procuring equipment and service packages. Viettel also took advantage of the military telecom infrastructure to set up its commercial telecom service and, therefore, to reduce its costs.

The Vietnamese government also played an important role in addressing industry constraints. During the early years, when Viettel and S-Fone first entered the market, the Vietnamese government rectified the infrastructure shortage by enforcing infrastructure lending. Under Decision 58/2005/QD-TTg, issued by the prime minister in March 2005, the government instructed VNPT, the monopoly at the time, to lend these two newcomers its comprehensive infrastructure and network so that they could launch their own services. The decision specified that the lending rate must be reasonable and affordable. This was an attempt by the government to correct the SOEs' bottleneck of insufficient capital and infrastructure.

In addition, the Vietnamese government corrected constraints involving the

imperfect credit market through the two most important policies that devised rents to the telecom operators. First, the government permitted the BCCs to acquire foreign capital and technology via its foreign partners. Second, it backed the SOEs' long-term loans, especially with state banks. These rent policies in the initial period were sufficient to remove some of the constraints in capital so that carriers could start developing new capabilities.

#### **4.3.2. Lack of Skilled Labour, Especially at the Managerial Level**

The issue of a labour shortage has been the focal point of Vietnamese government policy over the past ten years, which has been implemented by universities and technical training schools. In addition, the Vietnamese labour force has been eager to undertake training programs in telecom technology, as it is often perceived as a growing industry with good job potential and high salaries. According to the MIC (2010a), the number of universities that offer degrees in telecommunications and information and communications technology grew from 42 in 2001 to 206 in 2010. Similarly, by 2010, education and training programs offered at two-year colleges increased from 36 to 205 colleges. Technical schools, of which there were none in 2001, number 220 in 2010. The number of students enrolled in training courses increased from 30,350 in 2006 to 50,500 in 2010. This is a 66 per cent increase in enrolment within this four-year period (Ministry of Information and Communications, 2010a).

Despite that Vietnamese workers are reputed to be fast learning, newly graduated workers still lack tacit knowledge and hands-on training. A report from the Danish Federation of Small and Medium-Sized Enterprises and Axis Research (2006) points out, "With 10,000 university graduates every year, and another 10,000 junior college

graduates, the labour force supply for ICT is sufficient in quantity, but the quality of training still needs substantial improvement especially in regards to application of technical skills, professional working attitudes, teamwork and English competencies”. In my interview with managers who work for major telecom providers or in supporting businesses, they remarked that both private and public businesses frequently have to train technicians and engineers on the job, as their formal education was insufficient to meet the job requirements. As discussed in Chapter 3, training to acquire tacit knowledge takes time and considerable effort. Oftentimes, employers incur a loss during training periods because of the workers’ inability to engage in productive activities. This issue has become more complex in recent years as labour costs continue to rise rapidly in Vietnam.

Another consequence of the quick expansion of the telecom industry is that salaries for technical labour have gone up speedily, thus putting pressure on operation costs. In 2006, IT professionals were in high demand, and the salary levels were relatively high by Vietnamese standards, at VND 5.2–6.2 million (USD 250–300) per month for entry level positions; VND 8.3–10.4 million (USD 400–500) for junior managers; and VND 11.5–18.8 million (USD 550–900) for senior managers (Danish Federation of Small and Medium-Sized Enterprises & Axis Research, 2006). In 2013, Viettel is expected to raise salaries even higher than the industry standard by paying its senior engineers with five years’ experience approximately VND 32 million (USD 1,500) per month (Van-Oanh, 2013). This wage rate would be more than double the average offered by VNPT and FPT – one of the largest information technology companies in Vietnam (Van-Oanh, 2013). As wages rise, profits are squeezed, so smaller telecom enterprises will struggle to stay in business.

An interviewee, an upper-level manager at Viettel, explained that to overcome the labour shortage, Viettel's first approach was to pay higher salaries to recruit the best and most experienced engineers, either from within Vietnam or abroad, who can perform the technical tasks without additional on-the-job training. For technical and administrative employees, Viettel still provides on-the-job training to its employees. This is accomplished most often with senior staff coaching junior staff for one to three months, depending on the position. This approach offers a shorter training period because technicians and administrative staff can get up to speed relatively quickly. Viettel also organises training programs for its engineers and managers, so that they can gradually take on more complex tasks and assume higher levels of responsibility. Other telecom operators use similar on-the-job training approaches, although with less rigour and on a smaller scale. By using a number of practical approaches, Viettel has managed to temporarily overcome its skilled labour constraints.

This issue of human resources, however, will continue to be critical because the telecom industry is heading towards a convergence trend: combining information technology with services by providing more mobile content<sup>31</sup> in mobile phones. Deepening the linkage between the ICT and telecom sectors is vital because the mobile phone market has reached its saturation point due to price competition. As a result, the shortage of experienced workers in software and hardware engineering is holding back the development of the sector. My interviewee told me that despite paying a higher salary than most operators, Viettel continues to experience a shortage of senior engineers and mid-level managers, which is affecting the company's expansion plan.

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<sup>31</sup> Mobile content is any type of electronic media, which can be viewed or used on mobile phones, such as ringtones, graphics, discount offers, games, movies, and GPS navigation.

### 4.3.3. Dependence on Foreign Machinery and Slow Technical Upgrading

Over the past two decades, telecom technology and machinery are often imported from Chinese or American telecom device companies, such as Hutchinson, Nokia, Huawei, or ZTE. At the moment, to some extent all operators in Vietnam use imported technology and components from foreign vendors, though Viettel and VNPT do manufacture basic telecom equipment on a small scale. From my fieldwork, it does not appear as if learning to use foreign technology or components is a problem, as foreign vendors often set up the equipment and provide training to their Vietnamese buyers. Table 4.3 demonstrates that Vietnam continues to import roughly two-third of its telecommunications equipment, although it has become slightly less dependent in recent years.

**Table 4.3: Vietnam Import-Export of Telecommunication Equipment (in USD millions)**

<b>Telecommunications Equipment</b>	<b>2010</b>	<b>2011</b>	<b>2012 (estimates)</b>
Total Market Size	3,348	3,850	4,620
Total Local Production	1,196	1,375	1,650
Total Exports	49	56	67
Total Imports	2,194	2,523	3,027

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*Source:* U.S. Department of Commerce (2012)

Nonetheless, as the industry expands, there have been concerns that Vietnamese telecom providers are becoming dependent on imported equipment, as well as advanced

handset components (interview, 2013). This reliance on imported equipment limits vertical linkages and confines the sector to service providence. It also reduces business profits and value addition in service packages that the providers offer to Vietnamese consumers. In 2008, Viettel strategically took on this issue so as to steer the company towards developing a new competitive advantage. It established its own R&D institute to develop and produce operating software and simple components for its handsets and other telecom devices. In early 2010, Viettel introduced the first Vietnamese-made USB<sup>32</sup> dongle to promote its service in 3G technology. Two years later, in 2012, Viettel produced its own low-cost mobile phones and smart phones. Previously, Viettel's mobile phones had been produced by China-based Huawei but sold with Viettel's mobile packages (Van-Oanh, 2012a).

Following Viettel's lead, VNPT established its first R&D centre, VNPT-Technologies, in 2011 with an initial capital investment of VND 500 billion (USD 25 million). Unlike Viettel, which owns 100 per cent of its R&D institute, VNPT only holds 51 per cent of VNPT-Technology (VNPT, 2011). VNPT-Technologies specializes in electrical and telecom equipment R&D; IT and communications; digital content development; telecom and medical equipment imports and exports; landline services, and more (VNPT, 2011). All together, by 2012, only Viettel, VNPT, and FPT (which launched F-Mobile) invested in R&D manufacturing, leaving these three players to lead the industry in information and telecommunication technology.

#### **4.3.4. Final Remarks on the Constraints**

This section reviewed some of the major constraints in the telecom industry and

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<sup>32</sup> USB stands for Universal Serial Bus.

how the Vietnamese government and providers, notably VNPT and Viettel, addressed them to improve their capability. In addition to the operators' efforts in fixing market constraints, the Vietnamese government also provided important rents through a number of policy measures. First, the Vietnamese government provided guarantees of credit so that Viettel and S-Fone had access to state capital via state banks. Second, the government leased out VNPT's backbone network to Viettel and S-Fone so that they each could set up their mobile phone service. Third, the government also boosted technical training at technical schools, colleges, and universities, which successfully provided more technicians and engineers specialising in telecom technology. Nevertheless, as the telecom industry moves towards vertical integration and convergence with the ICT sector, constraint in skilled workers and mid-level managers have again resurfaced and new measures are needed to remedy them (interview, 2011).

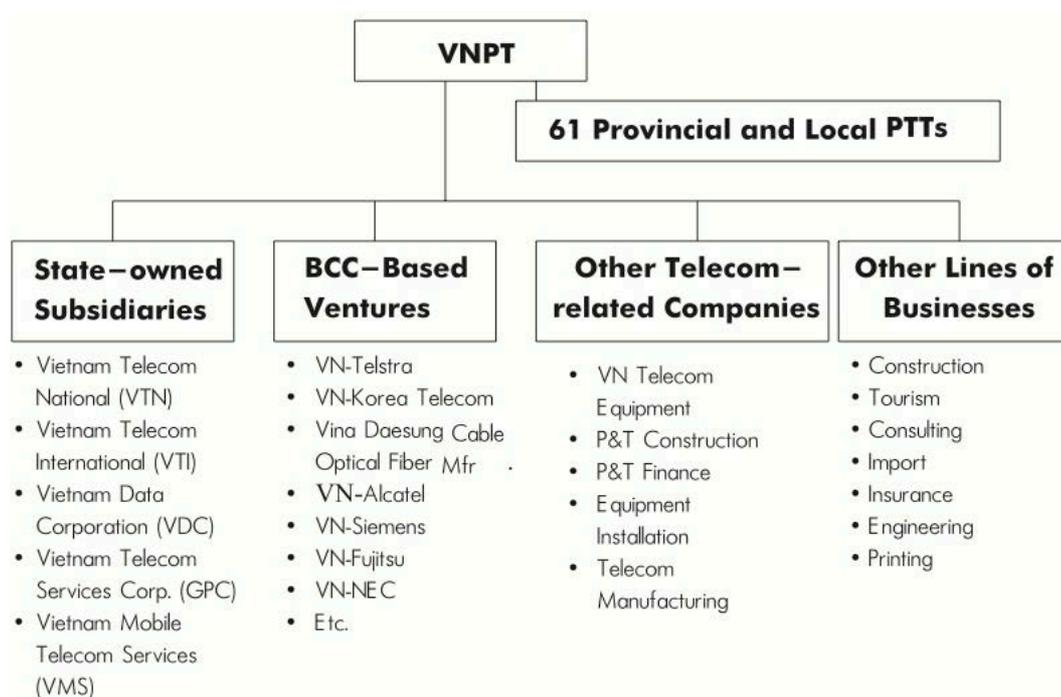
In the next three sections, the successful development of the telecom industry is analysed in three case studies. The cases illustrate the rent management mechanisms, as well as their impact on the process of technical upgrading and capability-building in the sector. In the first case, the break-up of the VNPT monopoly and opening up of the telecom market are shown to have created effective incentives and pressures for tremendous effort towards learning and upgrading. In the second case study, this thesis takes a snapshot of the sector, looking at the smaller learning and upgrading dynamics that took place inside Viettel. This case analyses where the rents came from and how they were used to build Viettel's industrial capability and competitive advantage. This thesis then reviews the third case study, the "beauty contest" for licenses of 3G technology. It observes the MIC's rent management capabilities and assesses the challenges and outcomes of the providers' adoption of 3G technology.

#### **4.4. Case Study 1: VNPT – Monopoly Failure Led to Coerced Upgrading**

VNPT was the first telecom service provider in Vietnam, and remains the dominant state-owned operator in all telecom segments except marine-based services. In 2010, VNPT, with chartered capital of VND 72,237 billion (USD 13.4 billion), operated largely in mobile phone, landline phone, Internet services, and IT services. VNPT maintains a complicated organisational structure that includes 63 municipal and provincial telecom companies, a number of local postal telephone and telegraph systems, joint stock companies, joint venture companies, and wholly-owned subsidiaries. Figure 4.6 illustrates VNPT's operational structure, its BCCs, and its participation in both the telecom industry and in other lines of business.

As mentioned above, VNPT owns the two dominant cellular companies: MobiFone and VinaPhone. Furthermore, it has several paging companies (ABC, MCC, Phonelink, Polink, and SEPRO) and pay phones (GPC, supplied by Sapura). The conglomerate also runs survey, consultation, design, and installation and maintenance services for telecom subscribers and providers. It provides IT services, as well as production of selected telecom and IT equipment. VNPT has several unrelated lines of business, including financial, credit, banking, advertisement services, event organisation, real estate, and office rental.

**Figure 4.6: VNPT Operational Structure and Select Affiliated Companies**



*Source:* Toulmin & Smith (2007)

In the next sections, the transformation of VNPT's monopoly rent is analysed using the DRMA framework throughout two periods. In the first period (stage 1), monopoly rent was largely ineffective and thus there was minimal technical upgrading in the industry. In the second period, (stage 2), when VNPT's monopoly was broken, effective rent management factors forced VNPT to acquire new learning and upgrading.

#### **4.4.1. Monopoly Period (Stage 1): Failure of Monopoly Rent**

Up until 1995, VNPT inherited substantial monopoly rent from the government. This was largely due to VNPT being a part of the Vietnamese government during its central planning period and, for security purposes, there was considerable political acceptance to retain the telecom sector under state ownership. As a result, there was no

political pressure or institutional mechanisms that compelled industrial effort from VNPT to industrialise. Within this context, VNPT exercised tremendous monopolistic power and reaped large profits from a lucrative market without competition. Meanwhile, it only slowly upgraded its infrastructure and management abilities, since it had little incentive to do either (interview, 2011).

An example of the underdeveloped telecom infrastructure and service is that in the late 1990s, on average, it took VNPT up to one month to install a fixed phone line for a business or household in large Vietnamese cities such as Ho Chi Minh City or Hanoi (interview, 2011). In addition, the tariff rates were very high, making phone service inaccessible for the majority of the population. In the late 1990s, while average national income was less than VND 2.08 million (USD 100) per year, a mobile phone handset could cost more than that. Furthermore, the cost per minute of mobile phone service was approximately VND 3,000 – 4,000 (USD 15 – 20 cents). Because of this pricing, VNPT failed to turn monopoly rents into learning rents to acquire industrial upgrading. Table 4.4 summarises the monopoly rent period during the post-war period using the DRMA framework.

**Table 4.4: DRMA Summary of the Monopoly Period**

<b>Player</b>	<b>Type of rents</b>	<b>Incentives created</b>	<b>Factors affecting the rent management mechanism</b>	<b>Rent outcomes</b>
VNPT	- Monopoly rent based on the industry's historical context - Government subsidized loss-making period until 1995	- Unproductive capture of monopoly rents - Limited incentives to improve infrastructure and capability	<u>First level</u> : Political protection of the monopoly <u>Second level</u> : no clear institutional mechanism to monitor VNPT's progress <u>Third level</u> : No competition in the market	- High cost and slow speed service - Slow infrastructure and technology upgrading

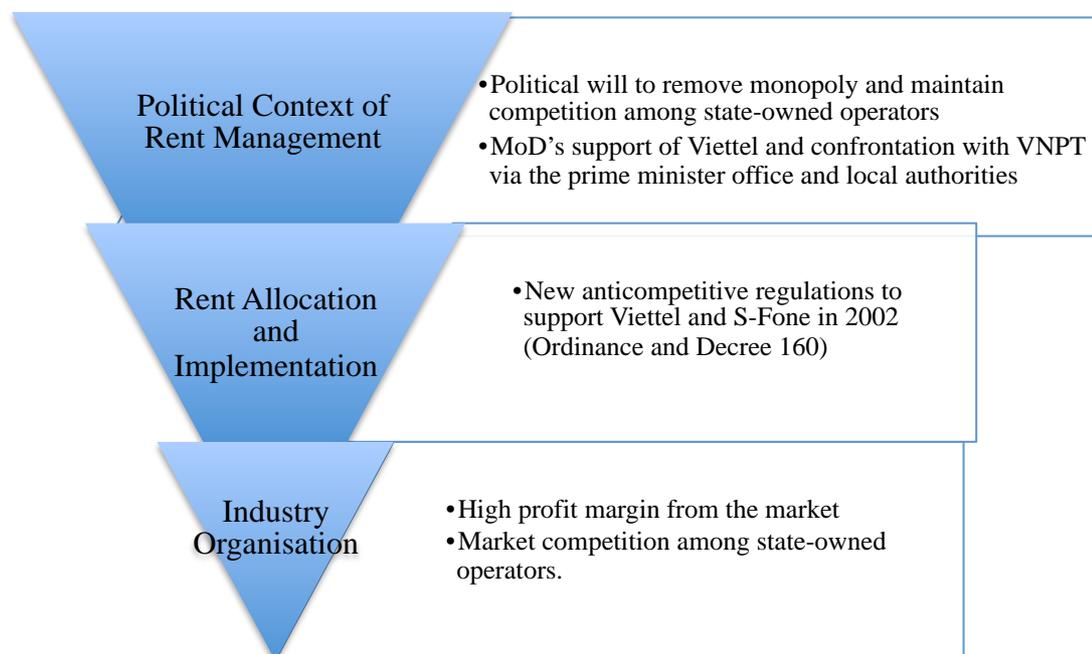
During this period, the industry and market were structured such that VNPT was the only player. In addition, VNPT was under insufficient political and institutional pressure from the government to upgrade its telecom network, and there was no value-enhancing rent management mechanism to pressure capability-building for the industry as a whole. Indeed, technical upgrading did not take place until 1995, when VNPT signed its first contract with Comvick, which created the first mobile phone service network in Vietnam. The next section reviews the post-monopoly progress.

#### **4.4.2. Post-Monopoly Period (Stage 2): Reshuffling of the Telecom Industry and New Industrial Upgrading**

In 1995, the Vietnamese government broke up the monopoly by giving business licenses to S-Fone and Viettel. From a rent management perspective, the ending of VNPT's monopoly was an important hallmark for the development of the telecom sector,

as it opened up competition and opportunities for technological transfer and capability-building in the industry. During this post-monopoly period, step 1 and 2 of DRMA analysis identified that while there was no major rent given by the government, there were incentives to develop the industry with participation of other SOEs. The rent management analysis (step 3 of DRMA) is provided in Figure 4.7.

**Figure 4.7: Rent Management Mechanism in the Post-Monopoly Period**



In this figure, the rent management mechanism (RMM) is divided into three levels of analysis: the political context of rent management; the institutional structure relevant for understanding rent allocation; and the organization of the industry. Together these levels create the “rent management context” that influenced the incentives and pressures for upgrading and learning.

#### **4.4.2.1. RMM level 1 – Political context of rent management in the post-monopoly period**

The political context of rent management can be seen through two series of events involving VNPT post-monopolistic behaviours. First, the Vietnamese government largely succeeded in managing the dispute involving VNPT's anticompetitive actions. The second event concerned the MoD's confrontation of VNPT through the prime minister's office.

In the first series of event, as soon as the VNPT monopoly was broken up with the entry of S-Fone and Viettel, Viettel quickly succeed in making a considerable profit in international phone service and mobile phone service. This success raised concerns for VNPT, as it saw its market share shrink. Given the advantages in owning the backbone network, VNPT was able to engage in various anticompetitive activities. According to Nguyen and colleagues (2005), allegations of such anticompetitive practices included delaying interconnections and unfair allocation of network facilities<sup>33</sup> and local access. VNPT also allegedly charged unreasonable prices for use of its network facilities, which competitors had no option but to purchase from them (Nguyen, et al., 2005). Additionally, there is evidence that VNPT frequently cross-subsidised its subsidiaries' services to keep prices artificially lower than market prices (Nguyen, et al., 2005). This practice expressly contradicted government regulations, as Decision 217/2003 QD-TTG<sup>34</sup>, passed in 2003, specified that VNPT could not differentiate between members of its company with other telecom companies (Nguyen et al., 2005).

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<sup>33</sup> Competitive operators had to interconnect with VNPT to offer a variety of services used for long-haul traffic, also known as backbone or trunk services.

<sup>34</sup> This regulation required that the dominant operator must provide every available service in its network to customers of the interconnecting new operators (Nguyen et al., 2005).

In the second series of events, there were many cases reported that VNPT refused to provide services to its competitors, notably Viettel and S-Fone. For example, Viettel claimed that there were a number of times when VNPT refused to provide value-added services, toll free numbers (1-800), or paid toll numbers (1-900) to Viettel subscribers (Nguyen, et al., 2005). The provincial telecom companies also engaged in practices known as “turnoff the trunk side,” which blocked telephone calls through the VoIP networks of Viettel and S-Fone. In such cases, customers could only make calls through VNPT’s VoIP network, which incurred higher costs for Viettel and S-Fone customers (Nguyen, et al., 2005).

Starting in the early 2000s, a number of disputes erupted between VNPT, Viettel, and S-Fone. Viettel was a part of the MoD – and the MoD offered considerable political clout and power. The MoD confronted VNPT via the prime minister’s office, as well as through local authorities (which is detailed below). From the perspective of DRMA, the MoD’s political power was a significant rent management factor that created the monitoring of VNPT’s anticompetitive activities. An example of a complaint regarding interconnection between Viettel and VNPT occurred in June 2005, when Viettel reported that 50 per cent of the phone calls from Viettel could not connect to VNPT’s networks. This caused Viettel’s subscriptions to drastically fall from 160,000 in May 2005 to 90,000 in June 2005, a 44 per cent decrease (Vietnam Business Forum, 2005). VNPT defended that its switchboards were operating at full capacity and it was facing difficulty in expanding capability. In reality, VNPT only needed to invest VND 41.7 billion (USD 2 million), or 0.5 per cent of its annual investment, to upgrade its switchboards. Meanwhile, Viettel had paid VND 625.51 billion (USD 30 million) to VNPT in 2004 to connect to its networks – an amount more than sufficient for VNPT to upgrade its switchboards so as to accommodate Viettel’s network. Not only that, but Viettel had

offered to upgrade VNPT's switchboards, but VNPT turned down the offer (Vietnam Business Forum, 2005).

After Viettel unsuccessfully sent a number of complaint letters to both VNPT and the MIC, the MoD sent a letter directly to the prime minister's office.<sup>35</sup> It contained complaints about VNPT's monopolistic activities that was causing loss of business to Viettel, and it pointed out that if this problem persisted, Viettel would face bankruptcy and the loss of VND 2.64 trillion (USD 126.6 million) of investment in the network's infrastructure (Vietnam Business Forum, 2005). In July 2005, after a weeklong negotiation facilitated by the Vietnamese government, VNPT agreed to upgrade its switching centres to widen the connection gate for Viettel (VNExpress, 2005).<sup>36</sup>

To summarise, the political context that made up a successful rent management mechanism seen in this case study includes two important events. First, the Vietnamese government succeeded in managing some of the disputes surrounding VNPT's continuing monopolistic activities. The successful handling of these disputes demonstrated the government's clear political will in maintaining fair competition between the state-owned operators. The second event involved a confrontation between the MoD and VNPT, which reflected the MoD's political clout and influence to fix VNPT's monopolistic distortions. Together, these two series of events ensured effective rent management in this context. These events are considered as rent management factors that effectively regulated VNPT's activities and provided the business environment and incentives for Viettel and other operators to focus on strengthening their businesses.

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<sup>35</sup> Khai Van Phan was the prime minister at the time.

<sup>36</sup> It should be noted that similar disputes occurred between VNPT and S-Fone, and later EVN, despite the fact that Decree 160 clearly lays out the law on anticompetitive behaviours in the telecommunications sector. In most cases, disputes were resolved through mediation between parties, with the MIC facilitating the negotiations.

#### **4.4.2.2. RMM level 2 – Institutional structure that managed VNPT monopolistic activities**

At the second level of rent management analysis, the institutional structure that supported industrial upgrading for the telecom industry was established via the creation of a number of new government regulations. First, in 1997, the government announced Decree 109, which stated that it was going to liberalise the telecom market and would issue more licenses. Decree 109 was a national program with the objective to establish a modern ICT.

In addition, to resolve the disputes between Viettel and VNPT, the Vietnamese government was forced to establish a clearer regulatory framework for competitive activities in the sector. In this vein, the Vietnamese government issued various decrees to force VNPT to cooperate with other telecom companies. The Ordinance on Post and Telecommunication #43-2002-PL-UBTVQH10 (Ordinance 20), issued in May 2002<sup>37</sup>; Decision 217/2003 QD-TTG passed in 2003; and Decree 160, issued in September 2004, together formed the legal basis for the MIC to regulate the sector. Decision 217/2003 QD-TTG specifies that where the “interconnection fee of telecom companies is determined, VNPT cannot differentiate between members of its company with other telecom companies” (Nguyen et al., 2005). In addition, Decree 160 defines the rate of market dominance<sup>38</sup> at 30 per cent and stressed fair leasing practices of interconnection for other providers. It “reiterates that interconnection charges shall be based on cost and are reasonably broken down according to network components or service processes,

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<sup>37</sup> A complete script of Ordinance 20 can be found at <http://vietnamembassy-usa.org/news/2002/10/ordinance-25-may-2002-posts-and-telecommunications>

<sup>38</sup> The rate of market dominance is a benchmark that determines monopolistic power in the industry.

without discrimination between different types of services” (Nguyen, et al., 2005). It also elaborates that the interconnection must ensure that users are free to select any service provider they want and that charges related to universal services must be clearly defined (Nguyen, et al., 2005).

At the institutional level of rent management, Decree 109, Decision 217, Ordinance 20, and Decree 160 are the crucial rent management factors that established the institutional structure for the industry’s success. For instance, when Viettel was disputing VNPT’s monopolistic activities, these regulations were brought up to prove that VNPT was violating the law. These regulations were reinforced during the disputes between Viettel and VNPT. The outcomes were that VNPT was forced to compete fairly with Viettel and the other operators, which allowed the industry to rapidly gain technological and organisational capability to advance its development.

#### **4.4.2.3. RMM level 3 - Industry organisation in the post-monopoly period**

At the third level of our rent management analysis – industry organization – there are two important rent management factors that provide the incentives and pressures for technological adoption and capability-building in the industry. First, market competition among VNPT, Viettel, and S-Fone created enormous pressure for Viettel and S-Fone to quickly acquire the capability and necessary technology to organise their telecom operations. In addition, when the increase in market competition, especially from Viettel, appeared to threaten VNPT’s market power, VNPT was forced to improve its network and services to retain its market power and subscribers.

Second, despite the fact that the government did not provide direct subsidies to any of these new providers, the telecom market possessed substantial potential for high

profit margins, which created effective incentives for Viettel and S-Fone to give their best efforts to earn these high profits. In reality, both Viettel and S-Fone rapidly gained market share in the low-income market segment and generated large revenues from their investments. A manager who has worked at Viettel from its early days explained to me that the high return of profit from its international call service in the 2001–2005 period allowed Viettel to recover its initial costs and to expand its telecom service and manufacture of its mobile phone and components. The growth of the telecom industry, grounded in these two important rent management factors allowed for new industrial capability and upgrading in the industry.

#### **4.4.2.4. Critical industrial transformation**

When the Vietnamese government ended VNPT's monopoly, major technological developments occurred in the telecom industry, ranging from the extension of the backbone network connecting the north and south, to the development of Vietnamese-manufactured mobile phones (Viettel Mobile), to the opening of high-tech production plants and research centres around the country. *Vietnam Business News* (2011) reported that Viettel invested 270 billion dong (USD 13.3 million) to build a smart card production plant in Hoa Lac High Tech Park. This production plant produces all types of SIM cards, such as smart cards for authentication, software products for telecommunication SIM, and smart technology integration solutions (functions such as auto-control and other smart key services), all of which require technical skill and software development. Similarly, VNPT-Technology built an R&D and production facility in Hoa Lac High Tech Park to research, develop, and manufacture electrical,

medical, and telecom equipment. The facility also focuses on developing digital content, IT, and communications (VNPT, 2011).

In the handheld market, Vietnamese producers aggressively pursued making Vietnamese-made handheld items, moving from a simple software design for mobile phones to producing completely made-in-Vietnam mobile phones and tablet computers. In 2008, An Binh Telecom Company broke into the handset market when it released its Q-Mobile. In that same year, FPT launched F-Mobile, and introduced a new model again in 2009. By 2012, the mobile phone market had dozens of Vietnamese brand-name mobile phones, including i6 and i9 by Viettel, Avio by VNPT, Hanel Mobile by Hanel, Bluefone by CMC Telecom, and Hi-Mobile by HiPT (these last three are IT providers) (Vietnam Investment Review, 2011). These mobile phones are assembled in either China or Vietnam. To tailor phones for the Vietnamese market, mobile phone producers initially designed software that automatically changed the user's language to Vietnamese. F-Mobile, produced by FPT, also integrated and provided consumers with apps such as Vi-Talk, Vi-map, and an English–Vietnamese dictionary for free (FPT, 2009). Similarly, Viettel launched a number of products, such as the 3G USB dongle in 2010, and the tablet computer and i6 and i9 mobile phones in 2012. The least-expensive smart phone model made by Viettel was priced at VND 1.5 million (USD 70) (TK, 2012).

#### **4.4.3. Final Discussion of the VNPT Case Study**

In this first stage of this case study, the telecom industry was largely inefficient because there was one provider and no effective rent management factor (see section 4.4.1). However, with VNPT's monopoly broken and market competition introduced, in the second stage, a number of effective rent management factors led to important and

productive transformations in the industry (see section 4.4.2.4), despite VNPT’s on-going anticompetitive activities (see section 4.4.2.1). These rent management factors are listed on Table 4.5.

**Table 4.5: DRMA Summary, Post-monopoly Period: Effects of Government’s Antimonopoly Actions**

<b>Players</b>	<b>Type of rents</b>	<b>Incentives created by the rent</b>	<b>Factors affecting the rent management mechanism</b>	<b>Outcome</b>
<b>VNPT, Viettel, S-Fone</b>	No new rent from the Vietnamese government but possibility of capturing part of the monopoly rents of incumbents	Rapid upgrading of technical and organisational capabilities to capture market share.	<p><u>First level:</u> (1) Political will to remove monopoly and increase competition among state-owned telecom operators. (2) MoD’s support of Viettel and confrontation with VNPT via the prime minister’s office and local authorities.</p> <p><u>Second level:</u> New antimonopoly regulations to support Viettel and S-Fone.</p> <p><u>Third level:</u> (1) High profit margins in the market. (2) Market competition among state-owned operators.</p>	<p>- A more level playing field for competition, especially between Viettel and VNPT.</p> <p>- Beginning of industrial upgrading in both telecom service and mobile phone markets.</p>

In summary, during the post-monopoly period, developmental rent management mechanism first derived from the political will that introduced and managed market competition among state-owned operators. Second, the MoD played an important role in keeping VNPT in check. In using the MoD’s political and military power to lobby against VNPT, Viettel successfully forced VNPT to play fair, allowing Viettel and other newcomers a chance to succeed in the market. From an institutional perspective, there were also important policy instruments, such as Decree 109, Decision 217, Ordinance 20,

and Decree 160, which set out the legal framework that bound telecom operators to cooperate and compete fairly. Finally, at the industry level, high profit margins and intense market competition among the operators created effective incentives and pressures that ensured significant effort in learning and upgrading.

#### **4.5. Case Study 2: Viettel – The Rise of a Giant**

The forerunner of Viettel was Sigelco, which was established in 1989 as an electronics information and equipment company under the MoD. Sigelco provided services to the military via the military's own dedicated telecommunication network. In 1993, Sigelco became Military Electronics Telecommunications Corporation under the trademark Viettel. In 1995, as detailed above, the government ended VNPT's monopoly status and called for more operators in the telecommunication sector. In that same year, Viettel was granted a license to provide local and long distance landline service, as well as mobile and Internet services based on its experience supporting the military (Cheshier, 2010).

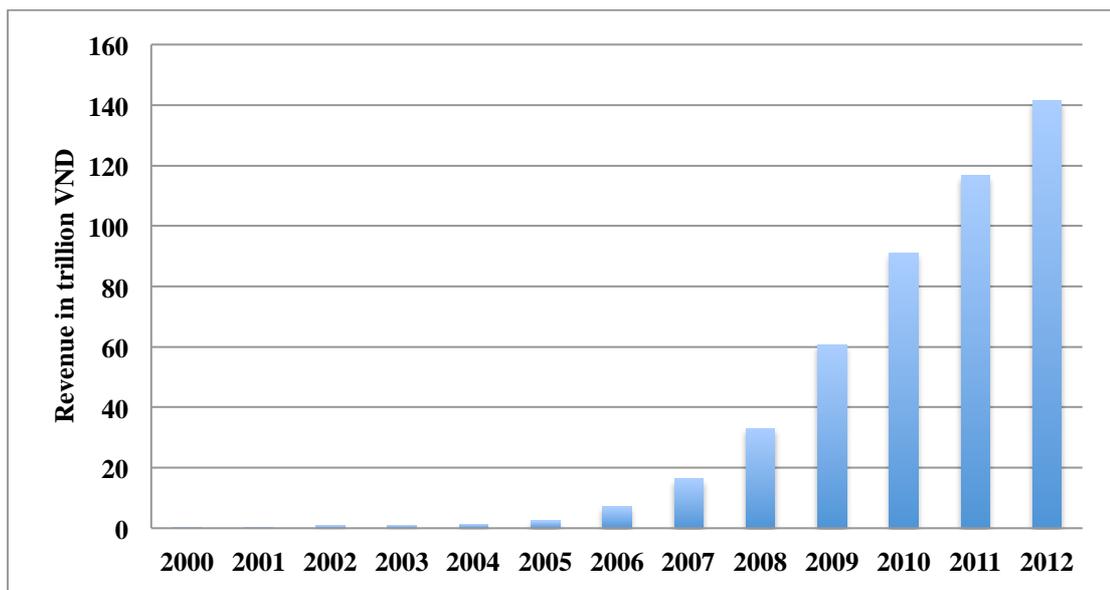
Viettel officially joined Vietnam's telecom market in 2000 with VoIP long-distance service, and with VoIP international service in 2001 (Cheshier, 2010). In 2002, Viettel became an Internet service provider; in 2003 it offered landline telephone service; and it launched its mobile network in September 2004 (Cheshier, 2010). Although Saigon Postel launched its S-Fone mobile network in 2003, VNPT's monopoly in the mobile service market was only really broken when Viettel created its network<sup>39</sup>, making mobile phone usage popular across Vietnam (Business in Asia, 2010). In 2009, Viettel became a state-owned economic group – a state conglomerate – under Decision

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<sup>39</sup> VNPT owns a portion of S-Fone.

2097/2009/QĐ-TTg. During this year, its name was changed to Viettel Group. In 2013, Viettel became one of the largest and most powerful state-owned business groups in Vietnam and is the only telecom provider that is run by the MoD (Thayer, 2012). Figure 4.8 demonstrates Viettel’s revenue growth rate from 2000 to 2012.

**Figure 4.8: Viettel Revenue 2000-2012 (in trillion VND)**



*Source:* Vietnam Financial Review (2010)

Viettel’s revenue report for 2011 shows that the company reached VND 20 trillion (roughly USD 1 billion) in pre-tax profit (Van-Oanh, 2012b). In 2012, Viettel earned VND 27 trillion (USD 1.3 billion) in pre-tax profits, which is an increase of nearly 15 per cent over 2011. Among the 21 largest state-owned business groups and corporations in 2010, the military-run telecommunications operator contributed 21.9 per cent of the total pre-tax profit to state’s revenue (Intellasia, 2011b).

In 2009, Viettel reportedly had more than 300 showrooms to display their products and 20,000 retail agents, and more than 6,800 employees and 25 million subscribers (Cheshier, 2010). Its mobile phone subsidiary, Viettel Telecom, was ranked

83 out of 100 of the largest telecom companies in the world and ranked one of the four leading telecom companies in a developing country in terms of subscribers (Cheshier, 2010). In 2010, Viettel was the second-fastest growing operator in terms of growth and profit rate in the telecommunications sector, with revenue of VND 91.134 trillion (USD 4.13 billion), up 50 per cent year-on-year (see Table 4.6). In 2012, Viettel surpassed VNPT for the first time in both revenue and profit. It earned VND 141.4 trillion (USD 6.4 billion), up 21 per cent from 2011 (Telegeography, 2013), and saw a profit of VND 27 trillion (USD 1.3 billion), which was three times VNPT's profit in 2012 (Trong-Cam, 2012). Additionally, Viettel's equity increased from VND 18.36 trillion (USD 875 million) in 2009 to VND 29.766 trillion (USD 1.4 billion) in 2010, which is a staggering 62.1 per cent increase.

**Table 4.6: Viettel Growth Rate Based on Revenue 2005–2012**

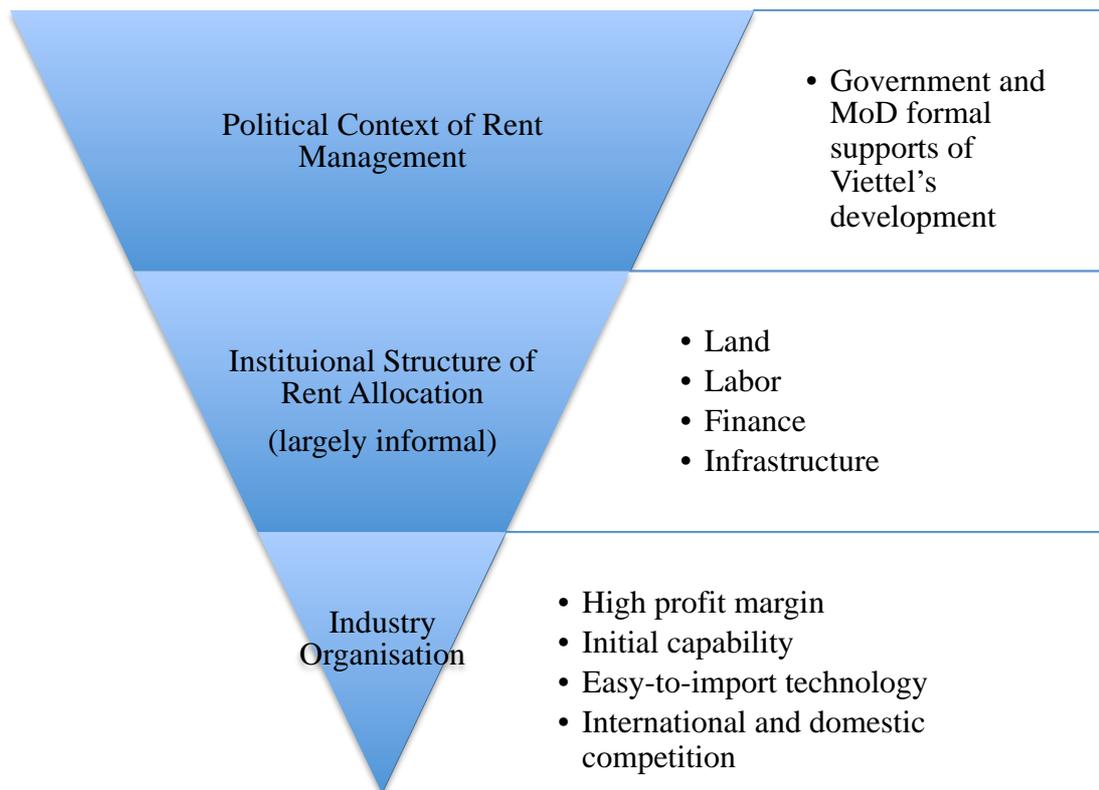
Year	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total Revenue (in trillion VND)</b>	2.5	7.1	16.3	33	60.6	91.134	116.6	141.4
<b>Growth by %</b>	78.50	184	129.50	102	83.60	50	28	21

*Source:* Author's calculation based on data provided on Viettel.com

Starting in 2006, Viettel successfully expanded its service abroad to: Cambodia (2006), Laos (2008), Republic of Haiti (2010), Mozambique (2012), and Peru (2013). In 2012, Viettel also signed contracts to provide mobile phone service to East Timor, Cameroon, and Tanzania. That same year Viettel earned VND 12.51 trillion (USD 600 million) revenue from all of its foreign markets, which is a profit of VND 1.58 trillion (USD 76 million).

The success of Viettel from a technology importer to an international telecom service provider raises a question as to how this SOE, in less than two decades, transformed from a relatively small military telecom provider to become one of the two largest conglomerates in Vietnam's telecom industry. What is remarkable is that Viettel did not require a foreign partner via a BCC to help with its successful development, unlike other SOEs. Today, Viettel remains 100 per cent state-owned under the MoD. In other words, there exists a more telling rent-seeking and rent management story among Viettel, VNPT, and the state, which could shed light on Viettel's learning and upgrading success. In this context, this second case study seeks to explain how the three factors of rent management – its political context, rent allocation mechanism, and organisation of industry – effected the structure of incentives and pressure that ensured Viettel's efforts for learning, upgrading, and innovation. Figure 4.9 outlines three levels of rent management mechanism that underlies Viettel's success.

**Figure 4.9: Viettel’s Successful Development under DRMA Framework**



In essence, Viettel’s success was based on a combination of three rent management factors. First, the political context allowed rent creation while imposing effective incentives and pressures on Viettel to rapidly raise its productivity and competitiveness. Second, there was some implicit rent allocation through mechanisms such as land allocation, labour policies, and the provision of finance, infrastructure, and credit guarantees. Given the poorly working land, labour, and credit markets in Vietnam, these measures arguably removed a number of potentially critical market failures and enhanced Viettel’s rapid upgrading processes. Lastly, the telecom industry’s organisation generated a number of important embedded factors: the opening up of significant rents accruing to the first mover that is incumbent to market competition, Viettel’s initial capability, the relatively easy availability of telecom technology, and international pressure from the liberalisation that generated the incentives and compulsions for high-

effort learning. The next three sections provide a thorough discussion of the rent management factors and how they each affected the structure of incentives and pressures that helps to explain Viettel's success.

#### **4.5.1. RMM Level 1 - The Government and the MoD Support for Viettel**

As discussed in the previous section, the political order underpinning Viettel's success is largely derived from the MoD's unreserved support of Viettel and its political clout in the CPV, the ruling party.<sup>40</sup> In return, the profits and revenues from Viettel provided a most important source of income for the military. For example, Viettel increased its revenue 1,500 times within 10 years, from VND 43.78 billion (USD 2.1 million) in 1999 to VND 66.71 billion (USD 3.2 billion) in 2009 (Thayer, 2012). More specifically, the distribution of power that underpinned the support for Viettel was based on two formal institutional arrangements. First, the Vietnam People's Army (VPA) – Viettel's boss – held, and continues to hold, significant political influence within the CPV. The VPA, for instance, permanently occupies one of the 14 seats on the Politburo, which is the highest body of the CPV. In addition, since 2006, the VPA has had 10.6 per cent representation (17 members) in the Central Committee. These numbers highlight the importance of the CPV–VPA relationship, as military personnel occupy important positions on the Central Committee, such as chief of the general staff, director and vice director of the General Political Department, deputy ministers, and the commander of the navy (Thayer, 2012).

Second, the MoD is an autonomous ministry that is largely independent from the Vietnamese government's monitoring and supervision, so it can create and allocate a

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<sup>40</sup> Thayer (2012) deduced that Vietnam's People's Army's key military leaders are actively involved in internal factional politics within the CPV.

number of types of rents without interference or necessary authorisation from the government. For example, at its inception, Viettel was free to use the MoD's land and telecom infrastructure to develop its mobile phone network and international phone service. The prime minister would not interfere with Viettel as the VPA has the right to maintain full control over enterprises which operate to serve and protect national security (Thayer, 2012). In essence, being both politically powerful and autonomous enhanced the MoD's support for Viettel, especially in countering VNPT's monopolistic activities (see section 4.4.2.1). This political power created a stable and dependable macro-political context that could support Viettel's successful technology adoption and business development strategies.

Finally, the political context also describes Viettel's ideological and historical mission as a unit of the army that had successfully liberated the country during the Vietnam War. My interviewees who work at Viettel each said the military's socialist ideology was imprinted on the minds of Viettel's leaders: "to serve the people and the country." Furthermore, one of my interviewees asserted that it is part of Viettel's corporate and military culture that "Viettel must continually assert itself to be a part of the industrial power that takes Vietnam's industrialisation forward" (interview, 2011). If this is the case, this sense of mission is also a crucial component defining the overall "rent management" system that motivated Viettel leaders to strive for success in their business venture.

#### **4.5.2. RMM Level 2 – The Mechanism of Rent Allocation to Viettel**

This section looks at the second level of the DRMA analytical structure, namely the formal and informal institutional and policy-based rent allocation structures that

allocated rents to Viettel. As mentioned above, the MoD provided Viettel with a number of implicit rents in the form of land allocation, labour policies, access to finance and infrastructure, and indirect financial support in the form of a liability guarantee. Some of these rents were associated with policies that indirectly helped Viettel avoid market failures, some of which were possibly severe. From an institutional perspective, many of these rents emerged and were allocated through informal mechanisms rather than via official government policies. In this context, an important semi-formal institutional arrangement was asset transfer and permission to use assets granted by the MoD to Viettel.

#### **4.5.2.1. Land, infrastructure, and labour**

As explained in section 4.3.1, telecom infrastructure has large fixed costs, because in order to build transmission stations and trunk and backbone networks, the provider must either buy or lease land, hire labour to build the infrastructure, and import technology. This is why many mobile phone providers initially rented VNPT's infrastructure; the fixed costs to build their own would have been prohibitively expensive. Viettel's potential advantage was access to the MoD's land, which are the "military zones" that spread across the country and are readily available for uses authorised by the MoD. In addition, the military already had transmission stations and backbone and trunk networks covering many cities and provinces to serve its security needs. Viettel could take advantage of these resources as well.

Viettel could also save on labour costs in building infrastructure as the MoD deployed the army to build the fibre cables, transmission stations, and other necessary infrastructures for Viettel's new networks. Thanks to the army's labour input, Viettel

incurred substantially lower labour costs, as there was no need to hire civilians to build the infrastructure. Additionally, as the Vietnamese army is highly disciplined, Viettel benefited from a trained and hardworking labour force. This saved the provider considerable training time in comparison to hiring civilians. Consequently, Viettel's infrastructure was built at a much faster pace and at higher quality as compared to its competitors. Clearly, an important part of Viettel's success was due to the informal rents it received as a result of the MoD's allocations of labour, infrastructure, and land. Without these available resources, it is questionable whether Viettel would have been able to develop so rapidly over the last two decades. Again, it should be noted that given the MoD's political power and autonomy, no other operator could object to the rents that helped Viettel address important market constraints throughout the early stages of its business development.

#### **4.5.2.2. The financial strategy for upgrading and capability-building**

From the perspective of rents and rent-seeking, Viettel also received substantial learning rents from the MoD by accessing the MoD's capital, access to bank loans, and credit guarantees. These rents helped Viettel to address financing problems that may have been serious given the imperfections in the credit market. When Viettel was campaigning for a business license to enter the market, its most convincing argument was that it would develop its own network and capability without the government's financial support. What it really meant was that it would not draw from the treasury because the MoD would finance Viettel out of its own budget.

One of my interviewees, a top manager in Viettel, said that in the company's early operation, the MoD provided only a small amount of initial capital (not including

the military labour and land) of about VND 20.85 billion–41.7 billion (USD 1 to 2 million). What then helped Viettel overcome the difficulties in the financing that face investors in Vietnam’s underdeveloped credit markets? The same interviewee said that Viettel’s first successful strategy to raise capital was in 2001 when it entered the overseas phone market using VoIP. At the time, VNPT charged a very high tariff for international calls.<sup>41</sup> When Viettel entered the market, it immediately offered services at about half of VNPT’s tariffs. Viettel’s newer technology and reduced pricing strategy enabled it to quickly gain market share and earn strong profits. The same interviewee explained that the cost to set up a VoIP network from scratch was not too high, and the profit margin was such that Viettel broke even after its first month of operation. It was this successful operation that let Viettel raise substantial capital for other investment projects, especially in the mobile phone market.

In addition to giving Viettel its start-up capital, the MoD also supplied loans through its own state bank – the Military Commercial Joint Stock Bank. Thayer (2012) pointed out that in 2003 the bank raised its charter capital<sup>42</sup>, which enabled the bank to pledge more credit for Viettel’s large projects. The access to finance provided lower cost financing to Viettel as compared to the price it may have had to pay if it had to raise its financing based on its available collateral and business model. This financing was a result of the MoD’s implicit credit guarantee. Lower financing cost of this type is also a form of rent, since it assisted Viettel’s investments in telecom projects. Finally, perhaps the most effective financing strategy was that Viettel could delay payments to creditors’ and vendors’. Based on the MoD’s reputation and implicit guarantee (and perhaps the

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<sup>41</sup> This interviewee also told me that the main reason why VNPT charged a much higher tariff was because it used old technology that made phone calls over a virtual network.

<sup>42</sup> Charter capital is the amount of capital that all shareholders or members of a company or bank are willing to contribute within a prescribed time limit, as stated in the company’s or the bank’s charter.

implicit suggestion that playing ball may negatively affect long-term business relationships with the MoD), Viettel convinced vendors that they should permit delayed payments and accept payments in small instalments. The top manager mentioned above explained that because the MoD provided a credit guarantee, foreign vendors allowed Viettel to delay its payments for equipment for up to two years after procurement. This delay was a privilege that other operators, obviously, did not have. Thus, Viettel received substantial rents from the MoD to overcome imperfections in credit, land, and labour markets, and some of these rents also assisted its learning and capability development.

#### **4.5.3. RMM Level 3 – The Organisation of the Telecom Industry**

In section 4.5.2, we saw that Viettel had access to different informal learning rents within a rent allocation mechanism that helped it address possible market failures. The main role of the rents was to accelerate investments and to create incentives and compulsions for rapid technology acquisition and high learning effort. In this context, the rent management mechanism was within the allocation structure that provided both incentives and capacities to overcome the constraints in land, labour, infrastructure, and capital (see sections 4.5.2.1 and 4.5.2.2). In this section, we look at the third level of DRMA. The focus here is how the organisation of the telecom industry affected rent management and helped or hindered in the creation of appropriate incentives and pressures for high-effort learning. We have identified a number of important factors affecting rent outcomes for Viettel: (1) its initial management capability; (2) its access to different types of implicit rents as a result of its association with political power; (3) its high profit margins and the availability of affordable technology that assisted with competitiveness; (4) its competition with VNPT; and (5) the credible pressures of market

entry by international competitors.

#### **4.5.3.1. Managers' capability**

Viettel's technological and managerial capability had three important foundations: (1) knowledgeable and adaptable leaders, (2) its selection of an appropriate technology, the Global System for Mobile (GSM) communications, and (3) management's effective business practices. To explain the first factor, Viettel's two leaders are highly trained in telecom technology and possess an outstanding vision of market orientation. Viettel's general manager Xuan Anh Hoang and deputy general manager Hung Manh Nguyen were both trained in telecommunications engineering in Russia. Nguyen, in addition, earned two masters degrees: one in Business Management at the University of Sydney, Australia, and the other in Economics at the National Economic University in Hanoi. It is generally agreed among Viettel's managers and business partners whom I interviewed that Xuan's skills in business operations and management are well-balanced with Hung's ability to create successful strategies, including entering the overseas phone service market, targeting low-income subscribers, and later using its 3G dongle to promote its 3G service. These two leaders are dynamic, and together with a group of highly qualified high-level managers, they are able to adjust quickly to changes in the telecom market and technology.

With reference to the second factor, Viettel's management capability is demonstrated by its strategic vision of market demand coupled with the complementary choice of technology. This proved to be one of the most important factors for the company's early success. When it entered the mobile phone service business, Viettel chose GSM and VoIP technology, while S-Fone chose CDMA technology. GSM

technology uses SIM chips, which is now the most widely used technology in Vietnam and in the world. This technology allows subscribers to switch to different types of phones and phone providers and it enhances user-friendly data transfer. More importantly, VNPT also uses GSM technology. Viettel's strategic selection of this same technology allows VNPT subscribers to smoothly switch to the Viettel network without having to buy another mobile phone. This choice of technology gave Viettel an immediate and overall advantage over S-Fone in the mobile phone market.

For the third factor, when discussing Viettel leaders' capabilities, all of my interviewees agreed that their leaders employ effective business practices. First, Viettel leaders boost capacity through ensuring efforts from its employees and by maintaining a high-level of corporate culture. Being an SOE many times smaller than VNPT in the beginning, Viettel is known for its ability to operate like a private enterprise. It maintains high expectations of its employees and often imposes discipline in cases of non-performance. A Viettel employee pointed out to me that Viettel employed, and continues to employ a corporate culture that stresses loyalty, teamwork, discipline, and integrity in performance. For example, one interviewee told me that he often works until midnight to get the job done and so as not slow down the progress of a project. He does not mind because he feels that he is making a difference to the team and the company. In return for this discipline, Viettel offers at least 20 per cent higher salaries than other enterprises (Van-Oanh, 2013) and provides training to improve expertise and technical skills for select employees. The distinction here is that Viettel offers incentives (higher salaries and training) but it also has a discipline mechanism to ensure that its employees perform at their highest levels. These business practices are rare and not seen at other SOEs.

Another characteristic of Viettel's particular business management style continues to be its ability to reduce costs to the absolute minimum. In fact, cost reduction

is one of Viettel's most successful business strategies. For Viettel leaders, lower costs are directly related to higher profits, and this strategy can be seen in its use of the military's existing telecom infrastructure and human resources. Viettel leaders also selectively picked the service options that they need from foreign vendors while cutting out redundant options. A manager at Viettel told me that, on average, Viettel spent half of what VNPT paid to build a transmitting station. This is because while VNPT procured complete packages with all of the special features from foreign vendors, Viettel managers hand-picked what they consider to be the most important features for its customers and negotiated with its foreign vendors for reduced prices based on these customised packages. In doing this, Viettel managers avoided extra costs by eliminating features that they do not consider important. The same interviewee told me that this procurement strategy fits well with Viettel's business model because it targeted subscribers who are largely low- or middle-income workers who own simple mobile phones. These users only require inexpensive, basic features. Furthermore, this strategy of targeting a different market segment from VNPT allowed Viettel to successfully expand its market share without competing head-to-head with VNPT.

In essence, Viettel's highly capable leaders are a direct factor in its success. This factor is important for understanding the rent outcomes, especially when combined with other factors, such as political support from the MoD that provides informal rent allocations, as discussed in earlier sections. Without the management quality, given the other rent allocation and management mechanisms, it is possible that Viettel would still have succeeded in becoming an important player in the market, but most likely not as rapidly.

#### **4.5.3.2. Financial rewards and reinforcement of political support**

Financial rewards and political support are two important sources of incentives and compulsions – and hence they are important components of the overall rent management mechanism that motivated Viettel to achieve quick successes. A number of firm-level institutional factors are also important for describing the institutional incentives. First, despite the fact that Viettel is an SOE, its compensation structure is not similar to other SOEs. According to an interviewee who is a high-level Viettel manager, the MoD gives Viettel great autonomy to manage its finances and allows it to keep a large part of its profits to reinvest in more projects. I asked the same interviewee whether Viettel leaders are offered financial incentives to make a profit. The reason for this question is that, as a state-owned company, most SOE managers have a fixed salary regardless of the performance of the enterprise. Additionally, SOE salaries are small in comparison to private sector salaries. This pay structure has been criticised because SOE managers do not have financial incentive to perform, and, worse, it can lead to corrupt behaviour in order to make more money.

Is there a financial incentive mechanism for Viettel managers to drive harder for profits? My interviewee said, “Certainly!” He would not reveal how much top managers of Viettel make on a monthly or annual basis, but he explained that all Viettel employees earn a base salary that is high in comparison to other enterprises. In addition, they also receive considerable bonuses for good performance. These arrangements are clearly well known within the firm, but the lack of public access to this information means that we can consider these to be semiformal arrangements. Van-Oanh (2013) reported that to retain high-quality people, Viettel offers its employees numerous benefits such as higher and rising salaries, bonuses, cars, and even houses, as well as promotions in terms of

official military rank.<sup>43</sup> Van-Oanh (2013) also suggested that Viettel pays the highest salaries in the industry to its top leaders (including Xuan and Hung) and its technical experts. At the middle- and upper-management levels, Viettel pays its managers and experts a few hundred million VND (approximately USD 10,000 or more) per month (Van-Oanh, 2013). Similarly, my interviewee hinted that upper management receives generous bonuses that give them strong incentive to continue earning large profits.

Equally important is that to maintain its financial flows, Viettel has to maintain the MoD's support. So far, Viettel has been very successful in doing this. Being one of the largest revenue generators for both the MoD and the Vietnamese government, Viettel has garnered MoD's political support in many of its strategic expansions in both domestic and foreign markets. This political support provides Viettel with more negotiation power with the MIC, and the government in general, for policies that suit Viettel's interests. For instance, in late 2012, Viettel requested the MIC to increase tariffs for incoming international calls, to extend the first number in a mobile phone by one digit (from 1 to 11 in order to offer more phone numbers), and to give Viettel a license to broadcast television services (Trong-Cam, 2012). Some of these requests (for example the license to broadcast television services) were granted. In the international market, Viettel was the first SOE to receive approval for a license to expand operations abroad. In essence, Viettel's desire to maintain the MoD's political support through high performance is an important factor as it motivates Viettel towards exceptional business performance. This same desire allows the MoD to discipline Viettel (by threatening to withdraw support) when needed.

In summary, there are two important factors that ensure growth-enhancing rent management and significant incentives and pressures for industrial success for Viettel:

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<sup>43</sup> Upgrade in ranking in the military is a high honor and an important source for receiving additional perks.

an institutional structure that ensures considerable financial rewards, and a formal and informal institutional environment. This environment maintains political support from both the MoD and the Vietnamese government, including the managing ministry (the MIC), as long as performance remains acceptable.

#### **4.5.3.3. Market incentives**

In the late 1990s, the telecom market in Vietnam experienced two important factors that further motivated learning and upgrading: high profit margins and the boom of mobile phone manufacturing that caused handset prices to drop drastically. When Viettel entered the telecom market in 1997, there was limited competition (just VNPT) and high tariffs for telecom service, so the market offered extremely high profit margins. In addition, costs of technology were relatively low given the military infrastructures. Consequently, Viettel earned substantial profits from its operation. High profits allowed Viettel to make small business mistakes, such as purchasing unnecessary machines and equipment or miscalculating its investment projects, and to learn from them because it could financially recover from such mistakes quickly. In addition, the high rate of return also gave the corporation plenty of room to attempt different strategies and to learn from them without jeopardising the company's growth. Finally, the high profit margin permitted Viettel to quickly regain investment expenditures, to accumulate capital, and, subsequently, to aggressively expand its operation.<sup>44</sup> My interviewees from within both the MIC and Viettel observed that this learning opportunity is no longer available for new operators because market competition is now so stiff that investment mistakes, such as S-Fone using CDMA technology, could be fatal.

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<sup>44</sup> Viettel had to pay dividends to the MoD and taxes to the government, but it was allowed to retain much of its profits for reinvestment.

The second characteristic of the market structure was the reduced cost of mobile phones in the early 2000s. When Viettel started to offer cheaper mobile phone services in 2004, there was a major boom in mobile phone manufacturing, and handsets became much more affordable, especially those imported from China. During this period, for VND 1 million (USD 50), a Vietnamese person could buy a simple mobile phone made in China or South Korea. As mobile phones became substantially cheaper, more functional, and lower in price, a major increase in demand occurred in Viettel's targeted market segment: low-income subscribers. Three interviewees, who each work for the MIC, Viettel, and VNPT, confirmed this observation by asserting that as prices for mobile phones fell, the Vietnamese demand and consumption for mobile phone service rose, thus expanding the telecom market for operators.

In short, high profit margins allowed Viettel to make mistakes, to experiment with different strategies, and to learn from them. Moreover, the availability of less expensive handsets enabled Viettel to target the low-income market segment and expand its market share. These were important factors that affected rent management and ensured Viettel's success. One may argue that Viettel was lucky because when it entered the industry, the market structure was favourable, but to Viettel's credit, it was also quick to take advantage of favourable conditions.

#### **4.5.3.4. Military pride**

In Chapter 3, it was argued that informal rent management factors could be as important as formal ones. Evidence suggests that informal incentives for learning were at work during Viettel's early days. In this case, the effects of military pride in motivating Viettel leaders to end their subordinate position to VNPT played an important informal

role. In a series of interviews, insiders who work at Viettel told me that in the late 1990s Viettel leaders were eager to become the equal of VNPT. One interviewee explained that in the beginning, VNPT leaders and the MIC disregarded Viettel because it was a small company with fairly limited financial resources, while VNPT was a powerful conglomerate with strong finances. This bothered Viettel leaders a great deal, and so they were determined to develop and rise as quickly as possible. Fortunately, the market conditions, political support, and the internal support of the MoD (via a number of informal mechanisms) allowed Viettel to quickly develop new capabilities and to grow rapidly. In essence, informal incentives that induced motivation to succeed were important rent management factors in Viettel's business growth.

#### **4.5.3.5. International pressure for competition**

A final important factor at this third level of rent management analysis was the liberalisation of the telecom market, which allowed access to international investors within an effective time horizon. This created further pressure on Viettel to focus on continuous learning and to enhance their competitiveness. A Viettel high-level manager who works directly under Hung told me that Viettel leaders always bear in mind that Viettel is overdue to have to compete with powerful foreign operators. Viettel managers recognise that, in perspective, first, it is a small telecom provider in the region and the world. Second, as a member of ASEAN and the WTO, Vietnam continues to receive more international investors to its domestic market. Third, as the manager mentioned to me, Vietnam is overdue in opening its telecom market completely to international telecom providers in accordance with its commitment to the WTO and the United States. Therefore, Viettel anticipated that it would be competing with much more advanced and

financially resourceful telecom operators worldwide in the near future.

In confronting this pressure, Viettel strategically focused on boosting its capability in order to have a chance of competing in the global market. The same interviewee told me that Viettel leaders felt that they had no choice but to build advantage by improving competitive capability and market presence both in Vietnam and abroad. Pressure from international competition was one of the main reasons why Viettel engaged: in vertical linkages (to be more independent of input suppliers); in expanding its international presence, especially in other developing countries; in gaining more international recognition; and in building more international expertise. Section 4.5.4 explains these strategies in greater depth. It should be noted that it is unusual in Vietnam for an SOE, which is heavily protected by the government and one ministry to possess such a realistic and practical market-oriented mentality. The emergence of such a vision may have been helped by Viettel leaders' recognition of the limited time horizon of protection before the inevitable forces of globalisation and integration obliged Vietnam to open up in 2012. Consequently, Viettel leaders have continually focused on technical and industrial upgrading in order to sustain the company's competitive advantage and growth.

#### **4.5.4. DRMA Step 4 – Viettel's Transformation and Rent Outcomes**

In sections 4.5.2 and 4.5.3, we looked at the rents relevant in this industry and the associated incentives and conditions. A number of factors that affected the operation of the overall rent management mechanism were analysed thoroughly. These factors positively influenced the structure of incentives and pressures that ensured Viettel's efforts in learning and upgrading. As the final step of DRMA's four-step approach, this

section reviews Viettel's industrial transformation and, therefore, the rent outcomes, especially of the technological dimension. In this context, Viettel's successful industrial upgrading was demonstrated by its achievement of a capability to produce a variety of telecom equipment, notably the 3G dongle and mobile phones, as well as its successful expansion into other developing markets.

#### **4.5.4.1. Technological upgrading for strategic growth**

The first important breakthrough in Viettel's technological upgrading was its production of the first Vietnamese-made 3G dongle. This USB device uses 3G technology to provide data access for a computer. The production of the 3G dongle was a vital part of Viettel's attempt to integrate vertically within the telecom industry. This vertical integration has not been matched by any of its rivals – for example, VNPT sells imported Chinese 3G dongles to its subscribers. The production model allowed Viettel to develop new market demand by introducing new technology and services to stimulate new consumer habits. The 3G USB dongle is a prime example of this strategy.<sup>45</sup>

In learning how to make the 3G dongle, Viettel gained new technical and innovative capabilities; hence, new competitive advantages over its competitors. Within eight months, the Viettel R&D Institute both designed the dongle using a Qualcomm<sup>46</sup> chipset and manufactured it at its own Vietnamese plant. Thus, the dongle is 100 per cent

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<sup>45</sup> Viettel entered the bid for 3G technology because it did not want to lose the 3G market. After investing a huge amount of money into the network, it realized that it needed to boost demand for 3G in order to recover the costs of setting up the 3G network. Thus, it developed the dongle to provide service at cheaper prices and to boost demand for Viettel's 3G services.

<sup>46</sup> Qualcomm Incorporated is an American global semiconductor company that designs, manufactures, and markets digital wireless telecommunications products and services. The company has 157 worldwide locations.

Vietnamese-made using Viettel hardware. I asked an interviewee, the team leader of the 3G dongle project, “How did Viettel learn how to make the dongle?” He said that Viettel first had to buy the right to use Qualcomm technology to produce the chip set at its Vietnamese plant. With the license, Qualcomm transferred its technology by providing instruction and technical assistance to help Viettel design the chipset for the dongle, and later it modified the chipset in accordance with Viettel’s needs. During the research and design phase, Qualcomm also provided technical advice and support to Viettel engineers to ensure the product development’s success (ICTNews, 2012). Based on the instructions, Viettel developed each component of the 3G device step-by-step. According to the same interviewee, the most difficult learning curve was the software: the operating system of the dongle. This operating system could not be copied from prior producers or purchased elsewhere, so Viettel had to develop its own software. This entire process included receiving the technology, adapting it to Viettel’s needs, and manufacturing the final 3G dongle. He said that there were roughly 50 engineers in the R&D team working on this particular project. Figure 4.10 shows the final product.

**Figure 4.10: 3G Dongle Made by Viettel**



*Source: Photo by ICT News (2012)*

My interviewee explained that generic dongles sold by other providers do not have customised features. However, Viettel customises its dongle such that some of the functions are only available to Viettel customers. These functions add more value to their service and help distinguish the Viettel package from other competitors. It also prevents Viettel customers from using their propriety dongle on MobiFone or VinaPhone 3G networks. At the time of my second fieldwork in 2011, this same manager told me that Viettel's production costs of making their dongle was equivalent to the cost of buying a similar dongle from Chinese manufacturers. Viettel is looking to break even from its investment on the dongle in the next two to three years.

Second, focusing on R&D has allowed Viettel to prepare a long-term strategy of gradually becoming both a telecom service provider and a telecom device supplier in domestic and international markets. A Viettel technical expert explained to me that, as a supplier, Viettel concentrated on specialised individual products in small quantities to target niche markets instead of competing head-to-head with well-known foreign producers such as Nokia or Samsung, or imitating the low-cost models that Chinese mobile phone makers have successfully produced.

In pursuit of this strategy, Viettel established its R&D institute and a manufacturing plant. The R&D institute was established in 2009. In 2010, Viettel invested VND 195.95 trillion (USD 9.5 million) to build its first manufacturing plant to produce telecom equipment and other hardware devices. Viettel claims that it is one of the most modern production plants in Southeast Asia. In 2011, this plant produced many types of telecom devices, including mobile phones, smart phones, tablet computers, and all-in-one computers, as well as network infrastructure devices and military information equipment (Tuoitrenews, 2011b). In addition, Viettel reported that this plant can produce

up to 5 million 3G dongles, 3 million mobile phones, and 900,000 computers per year<sup>47</sup> (Vietnam Business Forum, 2012). To continue with this success, the corporation pours capital into R&D; in 2012, it allocated VND 2.98 trillion (USD 100 million) to expand its R&D institute (Van-Oanh, 2012b). An interviewee who is a manager at the institute explained that one reason for Viettel's strong focus on R&D and technology production is that by manufacturing its own upstream supplies, Viettel is in greater control of its operations and, thus, has added value to its service and reduced transaction costs. Another reason is that the R&D strategy fits well with Viettel's planned expansion into other developing countries. By using economies of scale, Viettel can produce its products at lower costs, increase value addition while, at the same time, expand the market for both telecom devices and services, thus becoming a one-stop-shop for its subscribers worldwide.

In early 2011, Viettel had roughly 300 engineers, technicians, and experts working at its R&D institute, which was expanding rapidly; Viettel's hiring advertisements were constantly running in the local newspapers for all levels of software and hardware engineers. Also in 2011, Chien Dinh Nguyen, the director of the institute, reported that it had "succeeded in designing and manufacturing 16 sample products for military and civil purposes among 22 products that the Institute has been developing" (Van-Oanh, 2012b).

As one of the Vietnamese government strategies is using targeted learning and Schumpeterian rents to promote productive capability-building, the government allows businesses to invest 10 per cent of its pre-tax profit into R&D activity. To take advantage of this policy, in 2012, Viettel allocated VND 2.06 trillion (USD 100 million) to its R&D institute, with an ambitious plan to earn VND 20.6 trillion (USD 1 billion) revenue from

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<sup>47</sup> Viettel introduced its tablet computer to the public in 2012; as of early 2013 it had not yet officially sold it in the Vietnamese market.

its R&D and manufacturing activities by 2015. According to Chien, to meet the new expansion plans, the corporation is looking to increase the number of employees by as many as 10,000–15,000 workers by 2015 (Van-Oanh, 2012b). Viettel's strategic plan is to deploy all related processes – research, design, and production – in line with the present global trend, which is expected to save the telecom provider costs from equipment imports. Thus, in addition to its dongle, Viettel is producing its own branded smart phone, tablet computer, all-in-one computers, customised cell phones, network infrastructure devices, and military information devices. Viettel will also focus on producing telecom components and devices to establish its presence as a telecom device supplier.

This forward-thinking business strategy is unprecedented in the Vietnamese telecom sector, especially for an SOE. Viettel's acquisition of new technological and industrial capabilities is the foremost contribution to the rapid development of the telecom sector as a whole. Its strategic focus on technical learning to institute its vertical integration strategy provides instructive lessons for policy makers and other players in the market.

#### **4.5.4.2. Expansion into the international market**

Industry observers were unsure that Viettel would succeed with its investment project in Cambodia. Before Viettel set foot there, the country already had seven service providers. However, Cambodia's telecom industry developed very slowly because of high tariffs and limited service options (Intellasia, 2011c). In 2006, Viettel began its international expansion by supplying telecom and Internet services in Cambodia. After that initial success, in 2008, it entered a joint venture with Lao-Asia Telecom in Laos. To

penetrate these markets, Viettel offered different service packages to suit different societal classes, and call charges were 30 per cent lower than those offered by the other service providers. Due to this low-pricing strategy, after only one year of operation, mobile phone subscribers in Cambodia increased from 15 to 40 per cent of the market year-on-year. Similarly, land line phones increased from 1 to 6 per cent; and broadband Internet went from 0.5 per cent to 2 per cent year-on-year (Intellasia, 2011c).

In 2010, Viettel’s revenue in the Cambodian market was VND 3.33 trillion (USD 161 million), which was 2.8 times more than in 2009. Viettel earned VND 1.26 trillion (USD 61 million) in the Laotian market, a rise of 4.5 times over 2009 (Intellasia, 2011c). Altogether, Viettel’s revenue reached VND 4.59 trillion (USD 222 million) in Laotian and Cambodian markets by the end of 2010, and its total profit in these two markets in 2010 was VND 181 billion (USD 8.75 million). In 2011, Viettel profit increased to VND 1.45 trillion (USD 40 million) in these two markets. Table 4.7 illustrates Viettel rapid growth in the foreign markets.

**Table 4.7: Viettel in Foreign Markets 2010-2012 (in USD million)**

<b>Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Total Revenue</b>	222	500	600
<b>Profits</b>	8.75	40	76
<b>Growth in profit (%) Base year</b>		358	90

*Source:* Author’s compilations and calculations based on local news reports.

From this success, Viettel now operates mobile phone networks in the Republic of Haiti (in 2010), Mozambique (in 2012), and Peru (in 2013). In 2012, Viettel also signed contracts to operate mobile phone service in East Timor, Cameroon, and Tanzania.

Consistent with its business strategy in Vietnam, Cambodia, and Laos, Viettel's success is largely attributable to its low-cost mobile phone services, often offering tariff rates that are at least 30 per cent cheaper than the local price. In 2012, Viettel reported it earned VND 12.4 trillion (USD 600 million) in revenue, and VND 1.57 trillion (USD 76 million) in profit from all of its foreign markets, with a 90 per cent growth rate in profit (Trong-Cam, 2012) (see Table 4.7).

#### **4.5.5. The Industrial Transformation of Viettel**

Within a decade, Viettel grew from a small unit inside the MoD into a conglomerate with both a domestic and an international presence, and with a strong focus on technology adoption and production. In explaining this successful transformation, DRMA provides a framework for looking at the mostly informal rents and the factors that contributed to a successful rent management mechanism that drove Viettel's success. Table 4.8 summarises Viettel's industrial development using our four-step approach.

**Table 4.8: DRMA Summary – Viettel’s Successful Industrial Development**

<b>Players</b>	<b>Type of rents</b>	<b>Incentives created by the rent</b>	<b>Factors affecting the rent management mechanism</b>	<b>Outcomes</b>
<b>Viettel</b>	Privileged access to land, labour, infrastructure, finance, and credit guarantees	<ul style="list-style-type: none"> <li>- Compensation for market failures in relevant markets</li> <li>- Opportunity to focus on technical learning</li> <li>- Opportunity to concentrate on R&amp;D for strategic growth</li> </ul>	<p><u>First level:</u> Conditional political support for Viettel from the MoD and ultimately the Vietnamese government</p> <p><u>Second level:</u> Effective institutional arrangements for rent allocation from the MoD including informal mechanisms for allocating land, infrastructure, labour, capital and credit guarantees</p> <p><u>Third level:</u> (1) Capable human resources and leadership            (2) Financial rewards and reinforcement of political support            (3) High profit margins achieved rapidly            (4) Availability of cheap handsets            (5) Military culture and pride driving competition with VNPT            (6) Pressure from international competition due to the opening of the Vietnamese market</p>	<ul style="list-style-type: none"> <li>- Manufacture of 3G dongle achieved</li> <li>- Numerous Viettel-made handsets and telecom devices</li> <li>- Successful expansion to foreign markets</li> </ul>

Many interviewees who work for Viettel or the MIC are of the opinion that the Viettel experience cannot be repeated because the combination of favourable factors that allowed Viettel to achieve rapid success cannot be replicated. Nonetheless, Viettel serves as a successful role model for developing other global technology players. Therefore, although this combination of factors may not repeat in the same manner, policy-makers can surely learn from the ways in which Viettel resolved specific market failures and was offered opportunities, incentives, and compulsions to raise competitiveness as a result of

rents within the context of a specific rent management structure. Section 4.8 discusses the lessons and its application to a developmental rent management strategy in greater details. The next case study examines the 2009 “beauty contest” among the telecom providers for four valuable 3G licenses.

#### **4.6. Case Study 3: 3G Licensing – A Rent Management Debate**

On 13 August 2009, the MIC granted four 3G licenses to Viettel, MobiFone, VinaPhone, and a joint venture between EVN Telecom and Vietnamobile, based on six applications submitted as part of what was informally called the “beauty contest” for the 3G licenses. The four licenses, which each took effect on 15 September 2009, permitted these four operators to introduce 3G technology: high-speed data access via mobile phone, and features such as videophone, online video streaming, and music downloads. During my fieldwork in early 2011, the beauty contest to grant these 3G licenses among seven<sup>48</sup> commercial telecom providers repeatedly appeared in interviews as an example of the adverse effects of rents and rent-seeking.

To enter the beauty contest, applicants had to submit detailed business plans of how much they planned to spend on developing their 3G networks at different stages of the process. Once selected, the licensees had to deposit their committed capital for the project into a state-owned bank to secure their commitment to implement 3G technology. If these operators did not fulfil their commitments, a significant fine would be deducted from their deposits. From a DRMA perspective, a 3G license is a form of rent because the allocation price was lower than the price the licensee would have been willing to bid

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<sup>48</sup> EVN and Hanoi Telecom created a consortium to jointly apply for one license, which they would share between the two of them. Therefore, there were six applications among the seven telecom providers.

in the marketplace, and it offered the licensees an advantage to establish their presence and services for 3G technology. In addition, the 3G technology will be required for 4G service in the future. Therefore, if an operator plans to upgrade to the next stage of telecom technology, owning a 3G license is a must.

The allocation of the 3G licenses produced two important effects or incentives. First, applicants to the beauty contest were provided with implicit opportunities and incentives to take advantage of the benefits offered by the rent to boost their competitiveness and increase profits as well as the equity value of the enterprise. Second, the licenses opened the door for 3G foreign vendors to seek some of these rents by entering the market; they could inflate their service charges given the sudden demand to establish four different 3G networks in a period of three to five years. One of the analytical questions that I raised with my interviewees was whether the rents associated with the allocation of the 3G licenses were truly intended as a value-enhancing rent or was it a political redistributive rent offered to domestic providers to enhance their profits. In other words, what was the formal rationale for this rent? Moreover, regardless of the MIC's intentions behind the allocation of these rents, it was also relevant to investigate whether the rent produced a value-enhancing outcome and, if it did, what was the structure of the rent management mechanism at work? In this case study, the DRMA framework was used to examine the political and institutional context that gave rise to the rent and affected the outcomes.

#### **4.6.1. RMM Level 1 – Conflicting Accounts of the Political Context**

There is conflicting evidence about the political factors that drove the creation and allocation of these particular rents. On the one hand, some interviewees asserted that

the licenses should have been auctioned instead of effectively being given away. On the other hand, other interviewees said that the MIC believed that the 3G licenses should have been allocated through the beauty contest so as to deliberately grant rents to the industry and to create opportunities for attracting and developing new technology. These two arguments are considered in greater detail in the next two sections

#### **4.6.1.1. The rent distribution argument**

A number of industry insiders argue that the beauty contest allocation process (the *co che xin cho*, or application-granting mechanism) was a form of inefficient rent distribution, and that the MIC thereby created and allocated value-reducing rents. One of my interviewees, a director of a research institute at the MIC, argued that the process of granting licenses through a beauty contest instead of bidding and auctioning was an example of politically connected Vietnamese SOEs capturing national resources for corporate profits. His argument was that because the 3G licenses would inflate the market value of the providers when they were equitized, the government should have charged market prices for granting these valuable commercial licenses. Many developing countries indeed have auctioned their spectrum.<sup>49</sup>

For example, the U.S. government, in the 700Mhz spectrum auction in 2008, earned USD 16 billion, when Verizon paid USD 9.4 billion and AT&T paid USD 6.6 billion for sections of spectrum (Gardiner, 2008). In another example, Free Telecom obtained the fourth and final 20-year 3G license in France for EUR 619 million (USD

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<sup>49</sup> ‘A spectrum auction is a process whereby a government uses an auction system to sell the rights (licenses) to transmit signals over specific bands of the electromagnetic spectrum and to assign scarce spectrum resources. With a well-designed auction, resources are allocated efficiently to the parties that value them the most, and the government securing revenue in the process ([http://en.wikipedia.org/wiki/Spectrum\\_auction](http://en.wikipedia.org/wiki/Spectrum_auction)).

798.99 million). These licensees not only paid substantial prices, but they had to make all payments to their respective governments within the first year of the license (Nguyen, 2007). In Vietnam, by using a “beauty contest,” the government collected only a small fraction of the tangible and intangible benefits that each telecom provider would receive (Nguyen, 2007). Although the cost of the licenses was not published, it was reported that the MIC expected to collect a total of VND 2.06–3.1 trillion (USD 100–150 million) from all four operators (about 12 to 19 per cent of the cost as compared to France) over the 15-year life of the licenses (Nguyen, 2007; Thai-Khang, 2008)<sup>50</sup>.

When I asked an interviewee who was critical of the beauty contest to explain the mechanism and rationale behind the contest, he explained that the Vietnamese government has a tendency to grant licenses to SOEs without realising that it needs to treat commercial licenses as profit-making opportunities for the country, and that these licenses must be charged at the market price. He said that this habit is derived from Vietnam’s socialist history and that the government tends to manage various interest groups by dividing rents – in this case, the commercial opportunity – to maintain social coherence and political stability. In other words, rent distribution is used as a means to reduce conflicts among interest groups. Similarly, when it came to telecom licenses, as long as the grantee was a government enterprise, the government granted licenses without taking into account the viability of the business’s success. This interviewee argued that the government is perhaps more concerned with taming conflicts than with actual commercial or development outcomes of rent. By offering business opportunities to various interest groups inside the government, benefits trickled down only to the extent that the interest groups behind the enterprises did not hold objections or resistance

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<sup>50</sup> From these sources, this author calculates that the cost of each of the four licenses, based on the Vietnamese government charge for frequency posted on the MIC website, was 1/69 of the fee France charged its telecom providers.

against the government. This is effectively a system of benefit sharing that reinforces political legitimacy and stability.

The interviewee argued that charging an appropriate fee for these rents, including the 3G licenses, would have provided the government with financial resources that could have been used to enhance the institutional capability of the MIC in monitoring and supervising the sector's activity more efficiently. In his opinion, the Vietnamese government must change its approach in managing commercial licenses, especially in highly profitable industries, because "national resources should not be given for such low prices". The MIC's failure to properly auction its four 3G licenses highlights the government's preference to redistribute rents in return for social and political stability. This, however, means that it overlooks the considerable benefits that the rents could generate for the government if it were to charge fair market price for licenses.

#### **4.6.1.2. The MIC's argument for creating license rents**

An interview with the MIC official who was the mastermind behind the contest offers a contradictory analysis. The official pointed out that most major telecom providers in Vietnam are SOEs. They are small and thus do not have capital readily available for investment in new technologies such as 3G. This particular technology requires considerable initial capital to build new infrastructure and a network. Therefore, it would have been risky to hold an auction for the 3G licenses. A high license fee would have negatively affected the investment speed and effectiveness of the providers to implement the technology. This is the reason why, one of the criteria of the contest was the providers' commitment to invest in developing the 3G network (Thai-Khang, 2008). Similarly, Thang Nam Le, the MIC's acting deputy minister, asserted in the media that if

the MIC used the auction method, then the government was effectively collecting fees from state-owned enterprises, and hence itself.

Hai Hong Pham, director general of the MIC's Authority of Telecommunications, also pointed out in the media that the MIC had learned from other countries' experiences that many mobile phone providers came close to bankruptcy after successfully bidding for a 3G license because of the cost of the license and the slow increase in consumer demand for 3G services. Therefore, paying a high license fee might be a burden to businesses and slow down their technological adoption and success (Thai-Khang, 2008). Using a similar argument, the same MIC official who designed the beauty contest explained to me that these foreign lessons proved that auctioning 3G licenses could cause telecom providers to bid aggressively so as to gain a license, as they would not want to lose the opportunity to be in the market. As a result, many foreign companies overbid each other, subsequently stretching themselves too thin. Even if they won the bid, due to shortage of capital, they could fail to develop adequate 3G technology, and subsequently fail to attract subscribers or go bankrupt.<sup>51</sup>

This same interviewee maintained that under the beauty contest model designed by the MIC, the telecom providers who won the licenses could use their financial resources to invest in new networks and to develop new services, rather than spending money in auctioning for a license. Hence, consumers could benefit from the upgraded service, not just the operators. From a rent management perspective, this is the argument for the creation of a value-enhancing rent. In essence, the granting of 3G licenses at low prices was a form of learning rent, with which the Vietnamese government aimed to encourage the rapid adoption of 3G technology.

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<sup>51</sup> This is what ultimately happened to EVN Telecom (interview, 2012).

My MIC interviewee argued that, along with the considerable investment required, there were significant concerns because 3G technology is not always readily successful. First, to use 3G services, customers have to buy 3G-enabled mobile phones, which are expensive. At the time, only a small number of customers owned 3G phones in Vietnam. Second, even for those with 3G phones, value-added technologies are still a luxury to most given the added cost of the service. According to MobiFone, in order to break even, earnings from 3G services must be around VND 4.13 trillion (USD 200 million) per year for ten years, which means MobiFone will need one million 3G subscribers by the end of 10 years. However, MobiFone estimated that only 5 per cent of their current subscribers, or approximately 100,000 subscribers, will use their 3G services (Vietnam Financial Review, 2009). In other words, given the market condition in 2009, MobiFone was estimated to gain roughly 100,000 subscribers for its 3G service, which was far below the target of one million.

My interviewee who designed (and managed) the beauty contest at the MIC pointed out that the Vietnamese government did not necessarily need the income from the auction. What was more important, from the point of view of the MIC, was to ensure that the telecom providers succeeded in building new capacity and providing the best service to consumers. This is a plausible argument, but only if the institutional, political, and market conditions were sufficient so that the providers could deliver the fastest technological and productivity improvements to consumers.

The arguments from both sides are not necessarily mutually exclusive. They each illustrate the rationale and approach to rent management at the state level and highlight the political context of rent management in Vietnam. Before going further, it is worth reviewing the MIC's policy structure for the beauty contest and the factors affecting rent management mechanism.

#### **4.6.2. RMM Level 2 – Structure of the Beauty Contest and Implementation**

The second level of rent management analysis involves the policy structure of the beauty contest and the rules for allocating the rents in question. To enter the beauty contest, the MIC asked applicants to submit detailed business plans of how much they planned to spend on developing their 3G networks at different stages of the process and the specifics of how they would implement the plan step-by-step. Additionally, the entrants had to make a commitment to develop and bring the new 3G technology to market, and had to deposit that committed capital into a state-owned bank. The deposits of the four winning providers totalled approximately VND 8.1 trillion (nearly USD 455 million). Of this amount, Viettel Mobile accounted for VND 4.5 trillion (USD 252.69 million) – more than 50 per cent of the total deposit (Vietnam Financial Review, 2009). This capital not only secured the providers' commitment to implement 3G technology, but it also prevented them from changing the amount of capital investment in the future. If these operators could not fulfil their commitments in developing 3G technology, they would have to pay a significant fine, which would be deducted from their deposits to the state bank (Vietnam Financial Review, 2009).

Thang Nam Le, the deputy minister of Information and Communication, was cited in the media as saying that, after granting the licenses to the telecom providers, the ministry would issue regulations to supervise 3G deployment, including penalties against those providers failing to implement what they had committed to do. If any of the five telecoms enterprises failed during this first competition phase, they would most likely be allowed to supply 3G service at a different frequency band, or they may be allowed to join forces with other 3G license winners to provide services via roaming or sharing

network infrastructure (IHS Global Insight, 2009).

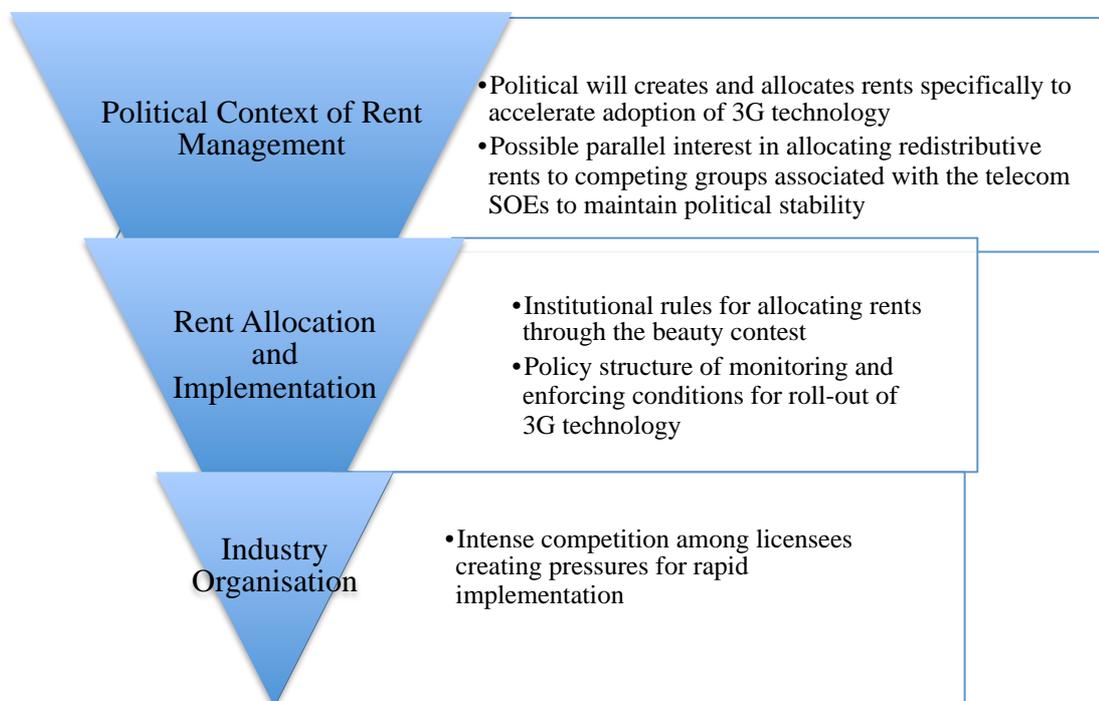
From a DRMA perspective, and compared to other examples of value-enhancing rents in other Vietnamese industries, the policy structure was relatively transparent. The MIC clearly set up the legal and policy frameworks for the allocation of 3G licenses and the subsequent monitoring of conditions, and these were implemented relatively smoothly. Although the Vietnamese industrial experience usually has little transparency in the relationships among SOEs, and the business groups and its managing ministries, the policy framework and the implementation of the 3G technology was considered successful (interview, 2011). One of the reasons for this is perhaps due to the severe competition among the operators. This does not imply that mismanagement and favouritism did not take place during this period. However, the overall structure of rent allocation and monitoring in this particular case largely achieved the MIC's goals and expectations.

#### **4.6.3. RMM Level 3 – The Industry Organisation Relevant for 3G Adoption**

At the lowest level of rent management analysis, incentives and pressure largely stemmed from market competition and each operator's desire to quickly capture market share. This is the market structure that emerged after the VNPT monopoly ended, and which was analysed earlier in this chapter. What is notable is the clear market structure in the mobile phone market towards the end of 2000s. By the middle of 2009, both Viettel and VNPT had established their dominant roles in the mobile phone market and there was no doubt of their ability to implement new technology in the Vietnamese market. Small operators, such as EVN and Vietnamobile, were under great pressure to compete with them. Meanwhile, the competition between VNPT and Viettel effectively

pressured both of these conglomerates to follow through with their commitment to the MIC to strategically employ 3G technology. In addition, Viettel’s development of its 3G dongle is an example of its development strategy to gain a competitive advantage through vertical linkage by way of manufacturing. To summarize, Figure 4.11 outlines different factors affecting the rent management mechanism relevant for the 3G license allocation at the three levels of analysis.

**Figure 4.11: RMM Summary of the Adoption of 3G Technology**



#### **4.6.4. DRMA Step 4 – Industrial Transformation and Outcomes of 3G License**

##### **Allocation**

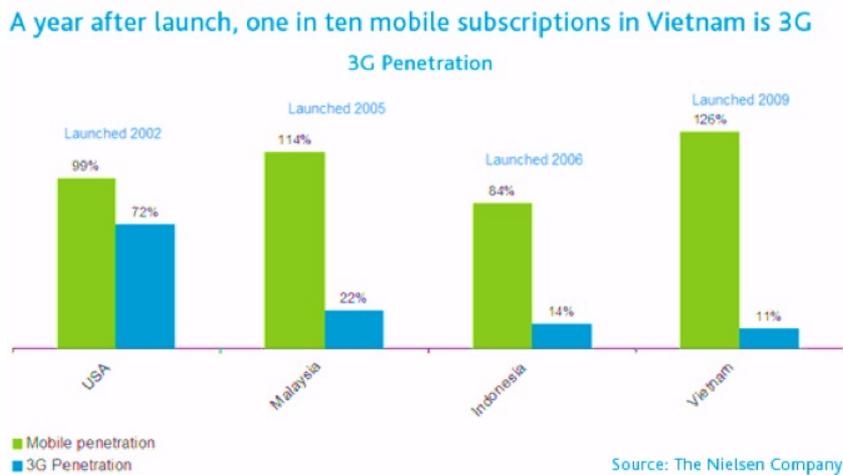
As discussed above, when the four licenses were granted, each of the telecom providers made certain commitments to bring the new technology to the market. VinaPhone committed to supplying 3G service only one month after its 3G license took

effect, and it launched that service in October 2009. This occurred initially in key metro areas, Hanoi and Ho Chi Minh City. In 2012, VinaPhone reported building more than 10,000 3G base transceiver stations (BTS) (Ha-Van, 2013). Meanwhile, MobiFone finished the installation of its 2,400 BTS by December 2009 and launched its 3G service in the same month. Between 2010 and 2013, MobiFone expanded its network by installing approximately 7,700 BTS.

Viettel committed to provide 3G services by April 2010, but was able to launch its network a month sooner. It committed to invest up to VND 12.8 trillion (USD 710.5 million) in its 3G network within three years, and the other competitors invested about half of this amount. By the end of 2012, Viettel took the lead in terms of infrastructure with 25,000 BTS for 3G (Ha-Van, 2013). Finally, the consortium between EVN Telecom and Vietnamobile claimed to have invested VND 6 trillion (USD 336.93 million) to construct 5,000 BTS throughout Vietnam. This joint venture launched its 3G service in June 2010 (Vietnam Financial Review, 2009). The MIC reported that between 2009 and 2012, 3G providers invested nearly VND 28 trillion (USD 1.3 billion) in building 3G networks, and reached 90 per cent of the population in early 2013 (Ha-Van, 2013).

In the first three years of launching 3G service networks, between 2009 and 2011, consumer adoption of 3G technology was relatively slow in Vietnam (see Figure 4.12) and 3G service was slow-moving with occasional interruptions (interview with 3G subscribers, 2011). Data collected from the Nielsen Company shows that six months after 3G launched, just under half (48 per cent) of Vietnamese mobile users were even aware of it, and only 3 per cent had subscribed. The latter number rose to 11 per cent in 2010 (Panganiban, 2010).

**Figure 4.12: Slow Rate of Subscription to 3G Service in Vietnam**



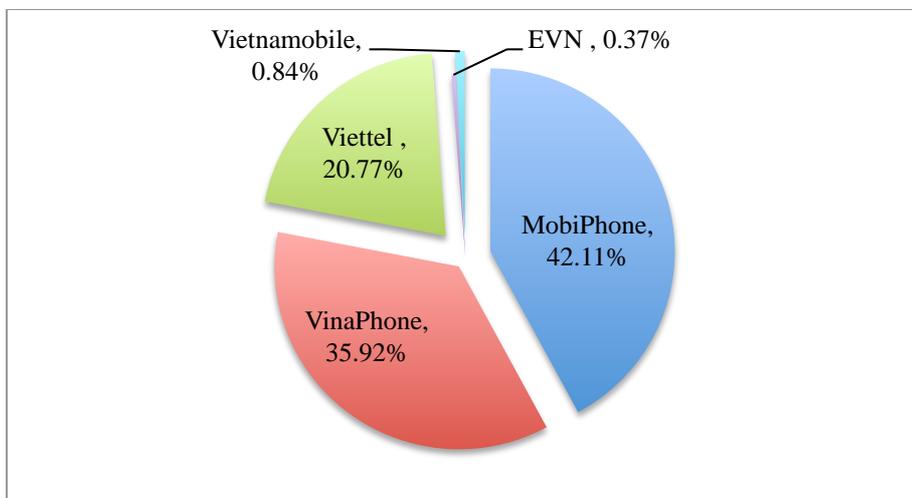
*Source:* Panganiban (2010). The high penetration rate of 126 per cent in the Vietnamese mobile phone market was due to mobile phone operators' excessive sales of prepaid phone cards as a marketing tool to attract new users. Consequently, there was a high rate of multiple SIM ownership in Vietnam.

In 2011, close to three years after VinaPhone launched the first 3G service in Vietnam, the growth of 3G service was still modest, and none of licensees had recovered their investment. My fieldwork data in 2012 suggests that EVN's high-profile bankruptcy and merger with Viettel was arguably due to its aggressive investment in its 3G network, with little business success to show for it. By the middle of 2011, the four operators had built more than 30,000 3G base stations nationwide, which provided network coverage to most of the country's towns and cities, according to figures from the MIC (Dewar, 2012). However, the quality of the networks was said to be poor, and the regulator observed that a lack of awareness of 3G services remained a major challenge for the uptake of the technology (interview, 2011).

The latter issue is partly due to an absence of third-party content providers and

partly due to the high cost of smart phones, which discourages 3G usage. Because revenue in 2011 from 3G data services was minimal among smart phone owners, who typically restricted it to web browsing, operators offered data at increasingly lower tariffs so as to build up a 3G customer base. For example, in 2011, VinaPhone's Golden Days promotion encouraged smart phone owners on 2G networks to try 3G service at no extra cost. Meanwhile, weak economic conditions meant that prepaid customers continued to make up the overwhelming majority of the country's subscriber base, providing a further barrier to mass 3G adoption. Indeed, aggressively priced 2G offerings proved more popular than 3G services (Dewar, 2012). Figure 4.13 shows the 3G market share of the four licensees as of 2011.

**Figure 4.13: 3G Market Share by Subscribers in 2011**



*Source:* MIC (2012)

However, in 2012, revenue for 3G technology started to pick up. Viettel reported that 3G services contributed to more than 50 per cent of the company revenues in 2012, while VinaPhone said that its 3G service had a 60 per cent growth in revenue in the same year (Ha-Van, 2013). This growth was, and continues to be, largely due to the providers'

aggressive promotions to attract new subscribers. For instance, in 2013, VinaPhone joined with MobiFone to launch a promotion of 3G services for VND 15,000 (less than USD 1) per month. Generally speaking, Vietnam now offers some of the cheapest 3G service in the world (Buu-Dien, 2013). The growth in demand for 3G service was helped by a sharp drop in prices of cell phones with 3G technology. For instance, in late 2012, Viettel launched a low-cost smart phone priced at only VND 1.5 million (USD 70), which made it easier for people to start using Viettel's 3G service.

#### **4.6.5. 3G Licensing and Outcomes**

Table 4.9 summarises the analysis so far.

**Table 4.9: DRMA Summary – Adoption of 3G Technology and the Beauty Contest**

Players	Type of rents	Incentives created by the rent	Factors affecting rent management mechanism	Outcome
VinaPhone MobiFone Viettel EVN and Vietna- mobile	Learning rents allocated by 3G licenses	-Investments in 3G technology to enhance competitiveness, profits and equity value.  - Attracting foreign technology providers	<u>First level:</u> (1) political will creates the rent specifically to accelerate adoption of 3G technology; (2) Possible political motives to allocate licenses among SOEs to maintain stability across interests  <u>Second level:</u> (1) formal institutional rules allocating rents according to the beauty contest structure; (2) formal monitoring and enforcement of investment conditions 3G technology  <u>Third level:</u> Severe competition among licensees creating major pressure for implementation	- Rapid investments and implementation of the technology  - Below average service, with interruptions  - Slow recovery of investments due to slower than predicted growth in demand  - Competitive tariffs for 3G service  - Possibility of over-investment

Despite the fact that the arguments for and against the 3G license contest seem contradictory, the political economy of Vietnam suggests that these arguments may actually be complementary. Both sets of concerns may have motivated the government in its rent allocation rules. On the one hand, the efficiency view is credible in that, while 3G licenses provided a long-term boost to the equity value of the licensees, MobiFone, VinaPhone, and Viettel are all 100 per cent state-owned; therefore, much of the upgraded value benefited the state, not individual corporations. Furthermore, as the data suggests, none of the providers broke even in the first three years of their investment, and despite

increased usage of 3G technology in 2012, it is questionable if they will recover their investment within the next few years. This supports the MIC's assessment that making a profit from this new technology would not be as easy as many people had predicted and that the high cost of an auctioned license might lead providers to go bankrupt.

On the other hand, it is no coincidence that three of the four contest winners are state-owned (two being under VNPT), making them appear as favoured businesses by the government. The rents created through the 3G license allocations no doubt supported and reinforced VNPT's and Viettel's economic and market power in the industry. Thus, the argument of rent seeking and rent redistribution among powerful state-owned conglomerates for the sake of political stability is also plausible.

The literature and my fieldwork suggest that perhaps the biggest and most direct beneficiaries of the 3G licenses were the foreign telecom suppliers, such as ZTE, Motorola, Qualcomm, and Huawei. Because of the licensees' commitment to the MIC to provide 3G service within three to nine months upon receipt their licenses, in 2009, MobiFone, VinaPhone, and Viettel rushed to sign lucrative contracts with their foreign suppliers to install base stations, networks, and the infrastructure for 3G service in Vietnam. It is likely that these contracts are a channel of rent distribution as state capital from the SOEs trickled down to individuals and businesses involved in setting up 3G infrastructure. Additionally, given the rushed nature of the contracts, foreign technology providers knew that they could inflate their prices to capture higher rents.

In conclusion, the handling of the 3G licenses demonstrates the MIC's practical approach to the development of the industry because it focused on technology adoption and improving providers' services through the development of new technologies. It chose the beauty contest route, which spared the licensees' capital for investment in the development of their 3G networks, instead of collecting a large license fee. From a

DRMA perspective, there were a number of factors affecting the rent management mechanism that resulted in a moderately value-enhancing outcome. These factors included a clear government rationale for creating the rent; and second, a corresponding policy framework to enforce the requisite investment conditions. Nevertheless, the factors that made this rent policy work were more than just the political context and the government capability to monitor and enforce the conditions associated with the allocation of the rents. Here, the relevant factors also included the initial capability of the operators to adopt the technology; and the market incentives (gaining more market power) and pressure (competition among the licensees) that together ensured high levels of investment and competitive pricing. The outcomes of the rent have been largely positive. While business for all the providers and service quality will continue to improve as demands rise, the MIC's rent policy enhanced the technological level and infrastructure of VNPT, Viettel and Vietnamobile. In addition, the outcome has been beneficial for users given the competition and falling prices of 3G services.

#### **4.7. Industry Restructuring and the Emergence of a Duopoly**

In 2012, the Vietnamese telecom industry entered its third phase of development (see Figure 4.3), which involved a major restructuring in the organisation of the industry. Between 2012 and 2013, there have been three major events that have partly shaped the current market structure. The first event, in January 2012, was that EVN successfully merged with Viettel, after considerable losses and heavy debts on the part of EVN. The prime minister's decision for the EVN–Viettel merger was considered political, and reflected Viettel strong influence on the government and its close relationship with political leaders. During the run up to the merger, Hanoi Telecom (owner of

Vietnamobile Network) had also wanted to buy EVN and its 3G license, as it had been renting EVN's infrastructure and sharing its 3G license. In addition, Hanoi Telecom also feared that if Viettel and EVN merged, it would drive up rental prices and force it out of the market. Despite Hanoi Telecom's numerous inquiries and letters to the MIC and the prime minister, the merger was allowed. Even though Hanoi Telecom was able to retain EVN's 3G license, its concerns were well founded. In March 2012, three months after the merger, Viettel (and VNPT) raised its network rental price by more than 200 per cent (Tran, 2012b).

The second event was the departure of VimpelCom. The Russian telecom company abandoned its co-owned Beeline Network in Vietnam in April 2012. VimpelCom suffered an investment loss of more than VND 8.26 trillion (USD 400 million) in its venture with GTel. VimpelCom's departure forced GTel to stand-alone and to rename its network Gmobile. VimpelCom was the third foreign venture in Vietnam's telecom market to leave (out of four ventures): Sweden's Comvik left in 2005, and South Korea's SK Telecom left in 2010. Hutchinson Telecom is the last foreign company still operating in Vietnam (associated with Hanoi Telecom). Why did these foreign companies leave Vietnam's telecom market? My fieldwork data, and secondary literature, suggest that it was due to market competition, in which tariff rates were too low to make a profit. In other words, foreign firms could not compete with Viettel and VNPT, and thus could not make a profit in the mobile phone market. Additionally, SK Telecom and VimpelCom each lost large parts of their investments. The price war was said to have discouraged FDI from entering the Vietnamese market (interviews with the MIC officials and a Viettel's manager, 2011).

The third event firstly involved S-Fone, which went out of business in early 2013, as it failed to find another interested foreign partner in the three years after SK Telecom

left Vietnam in 2010. In addition, in 2012, Indochina Telecom had its license revoked due to its slow implementation of mobile services. In the same year, the MIC signalled to VTC Telecom that if it did not launch its service within the prescribed time limit (which was not publicly known), its business license might be revoked as well.

As a consequence, in 2013, the mobile phone market was left with only four players: VNPT, Viettel, GTel Mobile, and Vietnamobile. Together, VNPT and Viettel cover 90 per cent of the market share. What is unknown is the fate of MobiFone and VinaPhone, which may end with a merger of the two companies into one entity under VNPT.

#### **4.8. Next Challenges and Implications for A Developmental Rent Management Strategy**

In this chapter, we looked at three case studies to illustrate the industrial development of the telecom industry using the DRMA framework. The success of the telecom industry is based on a number of rent management factors that allowed effective incentives and pressures for domestic providers to rapidly upgrade investments and capabilities. While market competition by itself could not help operators overcome market failures in land, infrastructure, and capital that constrained the development of the industry, especially in its early stages, competition was value-enhancing in that it increased competitiveness. The case study of Viettel also highlights the role of informality in rent creation and allocation – the MoD provided military resources to Viettel as rents – and informal motivations were important in driving Viettel leaders to catch up with VNPT. Furthermore, the pressure of liberalisation in the telecom market set an effective time horizon for Viettel and VNPT to achieve global competitiveness.

More generally, our analysis identified the three factors that affected rent management: (1) the political context of rent creation and management, (2) the institutional structure of rent allocation and implementation, and (3) the organisation of the industry, including the structure of the market and of firms. Together, these factors affected the incentives and pressures that led to the outcomes discussed in this chapter. This understanding allows us to offer four observations for a developmental rent management strategy for the industry.

#### **4.8.1. Managing the Duopoly**

Given the current structure of the industry, it does not appear that the government will create any new rents, as the telecom industry is now developed and established. The MIC is trying to maintain a level playing field, although this is increasingly difficult because Viettel and VNPT, as business groups, are under the prime minister and, thus, the MIC has less power to supervise and monitor them. At the same time, VNPT and Viettel have been reported to engage in some monopolistic practices. For example, in June 2012, both operators raised the cost of telecom infrastructure for smaller providers by more than 200 per cent by increasing their network rental prices (Tran, 2012b). Because they are the only two providers with backbone networks and large coverage of BTSs, which are the main infrastructure for mobile phone services, small operators such as GTel and Vietnamobile have struggled not only to keep up with rising infrastructure costs but to stay in business at all. As analysed in the case studies, competition among the providers has helped to ensure the highest learning effort, not least among the SOEs. At the moment this is becoming increasingly more difficult given the market structure, in which VNPT and Viettel together hold the majority of market share. The challenge for

the MIC and the Vietnamese government is to maintain a competitive environment and not allow these two conglomerates to form a cartel against consumers and smaller operators.

Will foreign entry offer pressure for effort, as in the past? As of early 2013, the MIC had not yet signalled that it would give out licenses to 100 per cent foreign-owned enterprises. Given Vietnam's commitment to the WTO, the MIC is extremely mindful of its obligation to allow foreign entry into the telecom market. However, when a British telecom provider inquired about entering the Vietnamese market in early 2013, Deputy Minister of Information and Communications Thang Nam Le responded that "foreign investors can cooperate with Vietnamese telecom groups, such as VNPT and Viettel through the mode of direct investment, or they can contribute capital to joint ventures" (see VietnamNet, 2013). This reply signals that the MIC will continue to restrict the telecom market. My interviewees from the MIC and Viettel observed that it is no longer easy to make a profit as the mobile phone market has reached saturation and the landline business is declining. The Internet market is expanding rapidly, but there are already a number of providers in the market charging relatively low Internet tariffs. Therefore, unless foreign providers have a clear strategy to either cooperate or compete with VNPT and Viettel, new ventures in Vietnam will face severe difficulties. From a rent management perspective, foreign entry is potentially a competitive constraint on local operators, but not as much as it might be provided that the MIC continues to resist offering licenses to 100 per cent foreign-owned operators.

In the industry's current third phase of development, the focal point for a developmental rent management strategy must be to monitor the duopoly for anticompetitive activities. This benefits both the consumers and the development of the industry as a whole. While the role of the MIC was relatively blurry during the second

phase of the industry's development, it is critical that its role is enhanced to effectively regulate VNPT and Viettel. This cannot happen without the political will of the Vietnamese leadership, in particular the prime minister, and without a clear understanding of the potential consequences if damaging rent-capture strategies of the duopoly are not effectively constrained.

#### **4.8.2. Maintaining the Speed of Industrial Upgrading and R&D**

The future of the Vietnamese telecom industry depends on success in research and development. In his speech to the Government Submit for ICT in 2010, Viettel's Deputy General Manager Hung Manh Nguyen said that in the past 20 years, the world revolved around the personal computer; and that the next 10 to 20 years the world will revolve around the smart phone (Ministry of Information and Communications, 2010b). Nguyen envisioned that the next opportunity for Vietnamese telecom operators will be to design and produce all-in-one smart phones and mobile phone applications, and to transform themselves from network providers to information content providers (Ministry of Information and Communications, 2010b).

Since both Viettel and VNPT are investing heavily into R&D, an important point to consider is whether these R&D investments will be effective. Viettel offers a successful example. As mentioned above, it is known to hire engineers at higher salaries but who work around the clock on projects. Viettel has also upgraded and produced a number of components (such as the 3G dongle discussed in section 4.5.4.1) that were traditionally imported from China and other Southeast Asian countries, and it is also selling these components in the domestic and international markets. This is becoming a larger source of income for Viettel, and will be more so as it grows its international expansion. This suggests that Viettel has strong incentives to keep boosting its

technological upgrading. It will be interesting to see if its tablet, smart phones, and other handsets will be successful in the Vietnamese market. My interviewee at Viettel explained that Viettel only intends to compete in the low-cost niche market in Vietnam for smartphones. These markets have good potential for success as most low-income subscribers in this segment are still using 2G mobile phones, hence the need for low-cost 3G smart phones. So far, the Viettel smart phone has been well received in this market. It will come down to whether Viettel can compete with Chinese phone makers in terms of price and quality.

In the next phase of its development, the role of the telecommunication industry will be to increase value-added to other services, especially in the manufacturing and service sectors. The industry is no longer limited to connecting people via telephone, as it used to be. The MIC must provide strategic guidance and legal frameworks to direct the sector towards focusing on R&D and expansion of both vertical and horizontal linkages, which will create added value and higher profits. This will require the MIC to address some of the issues facing the industry, such as the high rate of multiple SIM ownership due to excessive sales of prepaid phone cards. This would avoid wasting radio frequency. Vietnam's large prepaid customer base accounts for nearly 90 per cent of total connections in the country. The MIC could also be more proactive in advocating technology and R&D, so that operators expand into other areas to develop linkages, such as manufacturing devices and developing new software applications for handsets.

#### **4.8.3. Merging with ICT to Boost Value Addition**

Given the rapid development of digital media through telecom devices, the future of the sector lies in combining telecommunications with ICT services to create added

values for users who have access to media via mobile content on their smart phone. Currently, with VNPT and Viettel each moving into the ICT sector, the structure of the ICT industry may be substantially changed. Traditionally, this industry has played a crucial role in the transfer of foreign expertise and technology by the participation of small and medium enterprises (SMEs), including foreign ones. From my interviews, SMEs in this sector have raised serious and urgent concerns that Viettel and VNPT have unfairly leveraged their financial strength and political support to compete ruthlessly with the SMEs, effectively driving them out of development in the ICT sector. One of my interviewees, who owns an IT company, said that Viettel tricked him and his team to reveal his company's innovative ideas for IT development in telecommunication services, and then stole these ideas instead of collaborating with his company, as Viettel had led them to believe.

Once again, the assurance that all players will compete fairly is critical to ensure sustainable growth for both the telecommunications and the ICT industries. Therefore, the next challenge for a developmental rent management strategy is to regulate the possible anticompetitive patterns of Viettel and VNPT in the ICT industry. Additionally, creating a well-functioning credit market or providing rents with appropriate conditions to compensate for credit market failures may also be important for building new capabilities of the SMEs, which currently include developing and designing media content and applications for handsets and computer devices. These SMEs can help expanding market demand for data services, especially those that use 3G and 4G technologies.

#### **4.8.4. Matching Development Strategies with Enforcement Conditions**

Finally, we have seen that the relative bargaining power within and between the CPV, state bodies, and SOEs can influence the types of rents created and the terms under which they are managed. Viettel's experience, and the political dynamics analysed in the case studies underline the validity of this hypothesis. When Viettel was given permission to break VNPT's monopoly, political support was provided *in exchange* for Viettel's commitment to build a successful telecom company without any direct subsidy or financial support from the government. From the point of view of the Vietnamese government, this bargain was highly advantageous, even though it required the government, especially Prime Minister Kiet Van Vo and the MIC, to override VNPT's opposition in order to promote competition within the state sector for the development of the industry and the economy.

Evidence and fieldwork observations suggest that Vietnamese policy makers and business leaders understand the nature of the bargaining that is going on among various interest groups. However, they lack an understanding of the available policy options that could satisfy the interests of these groups while ensuring that vital rent allocation and rent management decisions are not left to the arbitrariness of internal forces (interview, 2012). It is important that rents are used for developmental purposes. If some of these rents can be created, allocated, and managed on growth-enhancing criteria, given the context of Vietnam's institutional and political realities, development policies could, in principle, be consistent with the internal politics of the country, and promote growth and development. The telecom industry provides an example of how political bargaining and institutional and market conditions can, if the combination is appropriate, achieve high levels of investment, technology adoption, learning, and R&D. This successful development story offers valuable lessons for the development of other industries in Vietnam and in the developing world.

## Chapter 5. Textile and Garment Industry: Rent-Seeking and Capability Building

### 5.1. Introduction

The textile and garment (T&G) industry<sup>52</sup> in Vietnam offers a unique case of industrial development because it has a number of interesting characteristics. First, it was one of the first industries to be liberalised based on the Vietnamese government's reform agenda, in which trade and foreign direct investment in both the public and private sectors comprised a distinct configuration for rent management. Second, the industry is an example of a low value-added industry where trade liberalisation brought in enormous trade volume, even though the actual profits earned have been limited. This result is due to a number of reasons.

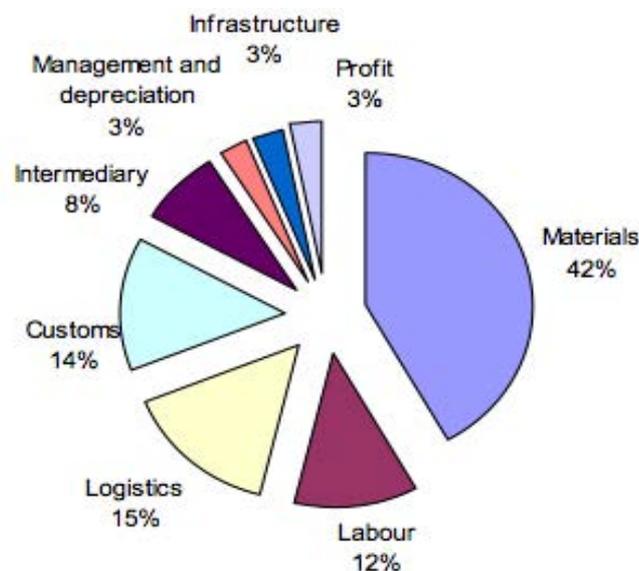
On the one hand, exports in the garment sector have grown nearly 21 per cent per year between 2000 and 2012, and Vietnam is now one of the ten largest garment exporters in the world. On the other hand, Schaumburg-Muller (2009) points out that export growth has only been in volume expansion, but not profits, because the Vietnamese suppliers have failed to pursue upgrading strategies to move up the value chain. For instance, the industry's average profitability rate was only between 5 and 8 per cent in 2010, according to Barrie (2010); up from about 3 per cent in 2006, based on data from the Vietnam Textile and Apparel Association (VITAS) (2006). A more optimistic report published by the European Union (IBM Belgium, DMI, Ticon & TAC, 2009) adds that the rate of value-addition (measured by revenue less outside purchases of

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<sup>52</sup> In this thesis, the textile sector refers to weaving, spinning, dyeing and finishing (upstream sector), while the garment sector refers to clothing and apparel manufacturing (downstream sector).

materials and services) in the Vietnamese garment industry was, at most, 20 per cent over the total revenue. The report points out that such low value-added in the garment export industry is largely due to the sector's heavy dependence on imported materials (IBM Belgium, DMI, Ticon, & TAC, 2009). Finally, local abilities in design, branding, and product differentiation are still very limited (Barrie, 2010). Figure 5.1 illustrates that, in 2006, the industry saw a small profit of 3 per cent. In addition, materials account for by far the largest share of the total cost of garment production.

**Figure 5.1: Structure of Cost Insurance and Freight (CIF) Prices**



*Source: VITAS (2006, p. 34)*

The third characteristic is that there are differences in development rates within the industry. While the garment sector (downstream) took off after receiving an influx of foreign investment and increased market expansion, the textile sector (upstream), dominated largely by SOEs, stayed sluggish until recently. Vietnamese production of cotton—a primary source of natural fibre—shrank from 32,267 hectares (79,733 acres) in 2003 to 3,000 hectares (7,413 acres) in 2009 (Ha, 2012). Because of an inadequate

domestic textile sector which could not keep up with textile demand for garment exports, the garment sector has to import 70 to 90 per cent of its materials from abroad (VITAS, 2006). In 2013, there has been a slight improvement as local textile content has risen somewhat to between 30 and 40 per cent in 2013. The contrast in development of the garment sector to the textile sector has led to Vietnam's heavy reliance on textile imports—especially from China—while facing low value-added production and relatively low profits throughout the industry.

Nevertheless, over the last 10 years, the textile and garment sectors have played important roles in Vietnam's economic development. This industry has been the largest formal employer in Vietnam, providing jobs for more than 3 million workers, of which more than 1.3 million are industrial workers. These industrial workers account for more than 10 per cent of the national employment in the industrial sector. In 2010, The T&G industry also had the second largest export value (after oil). In 2011, textiles and garments earned VND 330.66 trillion (USD 15.83 billion) and were Vietnam's largest manufacturing industry, accounting for 16 per cent of total export earnings (Ha, 2012). Table 5.1 illustrates the rapid growth rate of the industry between 2001 and 2012. The fastest growth rate was in 2011, with 41 per cent growth, but it immediately slowed down again in 2012. Between 2001 and 2012, the industry grew 21 per cent on average each year.

**Table 5.1: Annual Growth Between 2001-2012 for the T&G Industry (year on year, in million USD)**

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total</b>	1,96	2,75	3,654	4,368	4,838	5,92	7,780	9,130	9,084	11,21	15,83	17,2
<b>Revenue</b>	2	2				7				0	0	00
<b>Growth Rate (%)</b>	3.60	40	33	20	11	23	31	17	-0.50	23	41	8.60

*Source:* Author's compilation and computation based on Ha (2012)

This chapter analyses Vietnam's textile and garment industry using our analytical framework of rents and rent management. The purpose is to identify key areas of industrial upgrading and capability-building and how different rent management factors contributed to learning efforts. As argued in Chapter 3, the effects of different rent management mechanisms on the pace of learning could be identified by looking at a country's configuration of politics, institutions, and industry organization. Therefore, this chapter examines three factors of rent management: the political context of rent creation and management; the institutional structure of rent allocation and implementation; and the structure of the market and the organization of firms to explain technology acquisition and learning efforts since 1986.

Our analysis provides the following observations. First of all, while there has been political will to boost growth in the T&G industry, market failures have affected the acquisition of land and capital, and constrained business coordination, management, and learning. In addition, the weakness of the upstream textile sector creates significant bottlenecks for industrial capability-building in the integrated industry. The government attempted to address some externalities responsible for market failures by creating quotas to support export promotion (case study 1 below) and by implementing Decision 55 to accelerate the development of the textile sector, but neither measure was successful.

Second, due to the government's weak implementation capabilities in preventing illegal imports of garments and textiles through the China-Vietnam border (case study 2), few SOEs and private enterprises achieved some success in technical learning and upgrading (case study 3). This was most likely thanked to market expansion into Japanese, European, and, especially, U.S. markets. This thesis argues that this success, albeit limited, took place in an ad-hoc and spontaneous manner, and is related to the management capacity of specific firms, especially SOEs. They were able to utilise rents—which are largely unavailable in the private sector—to raise their productivity and competitiveness.

Finally, while foreign direct investment has been an important source of capital and technology transfer in a number of sectors, in the textile sector, foreign investors had offered limited technology transfer and training beyond factory assembly and low-skill technical training (see section 5.3.4). After the recent global financial crisis, a more difficult problem in the sector is that while the industry continues to experience significant constraints that are difficult to overcome due to market failures, rent opportunities that were initially available to Vietnam to address these problems are no longer available. This problem makes it more challenging for the government to implement industrial policies for the purpose of upgrading and capability-building.

The structure of the chapter is as follows. Section 5.2 offers an overview of the T&G industry, including its historical development structure and its foreign markets. Next, Section 5.3 provides a review of the externalities faced by the industry. In sections 5.4, 5.5 and 5.6, rents, rents-seeking activities, and rent management factors are identified and analysed using the DRMA framework in three case studies. Section 5.7 offers observations for policy options and possible directions to develop strategic plans that can strengthen the industry.

## **5.2. Background of the Textile and Garment Industry**

The textile and garment industry started in the 1980s in the framework of cooperative agreements with other Communist countries. The industry's main advantage was cheap labour. During this period, guaranteed market shares removed any incentive for innovation, industrial upgrading, or marketing development. In the wake of government economic reform in the 1990s, the communist-style economic cooperation was replaced by low value-added operations set up by foreign investors, especially from Taiwan and South Korea. These foreign investors built manufacturing facilities in Vietnam but exported the goods back to their home countries and, subsequently, to international buyers. Throughout this procedural linkage, Vietnamese private and public T&G enterprises had limited success at direct exporting to foreign buyers, as the large export shares were organised and controlled through foreign trading houses (IBM Belgium, et al., 2009). Compared to the major apparel producers in Bangladesh, China, India, and Sri Lanka, the industry in Vietnam is a late developer, having only achieved critical and world competitive mass starting in 2000. The sector's relative immaturity is reflected in the limitations of skilled labour, technology, and technical and management skills (IBM Belgium, et al., 2009).

### **5.2.1. Chronology of Vietnam Bilateral and Multilateral Trade Agreements**

There have been a number of important developments between Vietnam and its key partners since 1992. These developments are listed in chronological order.

- 1992 Vietnam signs bilateral trade agreement (BTA) with the European Union (Vo, Trinh, & Dinh, 2004).
- 1995 United States lifts trade embargo; normalises its relationship with Vietnam.
- 1995 Vietnam joins ASEAN and commits to fulfilling agreements under the ASEAN Free Trade Area by 2006 (Vo, et al., 2004).
- 1998 Vietnam becomes a member of Asia Pacific Economic Cooperation.
- 2000 Vietnam signs Vietnam-United States BTA, to become effective December 2001 (Vo, et al., 2004).
- 2001 United States grants Vietnam normal trade relations status.
- 2002 Vietnam signs free trade agreement creating the ASEAN–China Free Trade Area with China and nine other members of the ASEAN.<sup>53</sup> The agreement gives poorer nations like Vietnam until 2015 to open up to Chinese goods (Arnold, 2010).
- 2003 The Vietnam-United States Garment and Textile Agreement signed, to be renewed on a yearly basis unless renegotiated. Vietnamese export quotas were implemented and were broken into 25 categories, each of which is subject to 7 per cent growth per year (except wool products, which grow at 2 per cent per year) (Martin, 2008).
- 2006 U.S. Multi-Fibre Agreement (MFA) ends. Vietnam pledges to end all World Trade Organization (WTO)-prohibited subsidies in its textile and garment industry, as part of its WTO accession agreement.
- 2007 Vietnam gains access to the WTO.

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<sup>53</sup> “According to tax exemption plans under the framework of the ASEAN–China Free Trade Area, half of all tax lines were at 0–5 per cent in 2009. Furthermore, there will be zero tax on 40 percent of all tax lines in 2013, 100 per cent in 2015, and a flexible rate for 250 tax lines by 2018” (Voice of Vietnam, 2010).

- 2009 Vietnam–Japan Economic Partnership Agreement leads to the abolition of tariffs from Japan, starting in October 2009.
- 2009 Duties on trade between Vietnam and ASEAN reduced from 5 per cent (under the Common Effective Preferential Tariff scheme) to 0 per cent, which effectively created a duty-free block. Flexibility, however, will allow import duties on some sensitive products to be eliminated by 1 January 2018. Consequently, Vietnam gained tariff-free access to two major Asian markets, Japan and ASEAN, in the same year.<sup>54</sup>
- 2009 U.S. monitoring of Vietnam’s dumping in the textile sector expires in January, although there is some U.S. Congressional lobbying for a renewal.
- 2010 The ASEAN–China Free Trade Area comes into effect. China and six ASEAN nations<sup>55</sup> agree to trade more than 7,880 product categories, and 90 per cent of imported goods are to be freely exchanged with zero tariffs.<sup>56</sup>

### **5.2.2. Industry Organisation**

There are diverse ownership structures within the T&G industry, including state-owned enterprises (SOEs), private enterprises, and foreign-owned enterprises with up to 100 per cent foreign capital and joint ventures. The T&G industry is structured such that a large portion of state-owned firms are grouped under the Vietnam National Textile and Garment Group (Vinatex), a state-owned general corporation. Until recently, centrally

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<sup>54</sup> Details for the trade agreement may be found at <http://wits.worldbank.org/GPTAD/PDF/annexes/ASEAN%20protocol%20AFTA.pdf>

<sup>55</sup> These countries are Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

<sup>56</sup> Burma, Cambodia, Laos, and Vietnam are expected to participate by 2015.

controlled SOEs<sup>57</sup> accounted for a large bulk of product output and were much better capitalised than smaller, locally controlled SOEs. However, the number of the former SOEs is decreasing due to equitization as part of the government's commitment to the WTO. At the moment, Vinatex is the largest share-holding company<sup>58</sup> in the sector.

There are two active associations in the T&G industry: the Vietnam Textile and Apparel Association (VITAS) and the Association for Garment Textile Embroidery Knitting (AGTEK). These two organizations are somewhat disconnected from each other. VITAS was originally established by the government to act as the industry's watchdog. It has 15 branches and 635 members, who account for 70 per cent of the total production capacity of the industry (Embassy of Denmark in Vietnam, 2010). VITAS represents its members and consults with state and government bodies, advising on policies and mechanisms relating to the development of the industry. In addition, VITAS acts for the industry in dealing with international buyers and facilitates contracts between domestic enterprises and foreign investors (Buisman & Wielenga, 2008). Because of VITAS's close connection with the state and SOEs, an interviewee whose firm is a member of VITAS told me that it was largely a lobbyist for the SOEs, not for private or foreign enterprises.

In contrast, AGTEK largely represents SMEs within the industry in the south, or approximately 62 per cent of the total businesses in the sector. It has fewer connections with the central government than VITAS; instead, it is heavily active in promoting business and trade opportunities among its members and buyers. Table 5.2 shows the diversity of the market structure in 2009, with the SOEs comprising 1 per cent of the

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<sup>57</sup> There are two types of SOE in Vietnam. One type is controlled by the central government and the corresponding ministry to the industry, and the other type are provincial SOEs that are managed by local city or province governments.

<sup>58</sup> In Vietnam, a state-owned share-holding company represents the state and is responsible for managing the state's funds in the industry.

total number of enterprises. The most common types of firms in the industry are joint stock, private companies, and limited companies, which constitute 76 per cent, while state owned firms constitute up to 1 per cent. In addition, foreign owned firms make up 18 per cent of total enterprises.

**Table 5.2: Percentage of Enterprises in 2009 by Capital**

<b>Type of ownership</b>	<b>Total share (in per cent)</b>
State-owned Company	1
Joint stock and limited company with state-owned capital over 50%	1
Joint Stock and Limited Company with state-owned capital less than 50% and private	76
FDI	18
Cooperatives	4

*Source: Le (2011)*

Table 5.3 illustrates the industry structure by subsector. Of the five different subsectors in the T&G industry, weaving comprised 17 per cent of the sector's enterprises in 2010 and it is perceived as an area where Vietnam may have a competitive advantage (Hill, 1998).

**Table 5.3: Percentage of Garment Enterprises within T&G Industry in 2010**

<b>Sector</b>	<b>Subsectors</b>	<b>Total share (in per cent)</b>
<b>Garment</b>		70
<b>Textile</b>		
	Weaving	17
	Spinning	6
	Dyeing	4
<b>Supporting Industry</b>		3

*Source:* Le (2011), based on VITAS data. VITAS does not specify whether the percentages are based on total revenue, number of employees, or number of enterprises.

Vietnam has relatively small spinning and dyeing subsectors because, as a senior representative of VITAS explained, these two require more skilled labour, which is limited in Vietnam. In addition, to be competitive, these subsectors require more sophisticated technology, while a significant proportion of the machines used in Vietnam are out-dated. My interviewees in the garment sector explained that the garment sector is more labour-intensive but requires less capital investment as compared with the textile sector. It also requires simpler technology and a shorter learning period.

Table 5.4 illustrates the percentage of enterprise by location in 2009. Geographically, a little more than 60 per cent of T&G businesses are located in the southern part of the country, including the Mekong River Delta and provinces near Ho Chi Minh City. The Red River Delta is the second largest geographical area, after the southeast region. 27 per cent of T&G enterprises are in this region. A senior manager of a mid-sized firm told me that, in general, SOEs in Ho Chi Minh City and within its proximity were more business-oriented and market-driven, as well as having greater managerial autonomy than those around Hanoi.

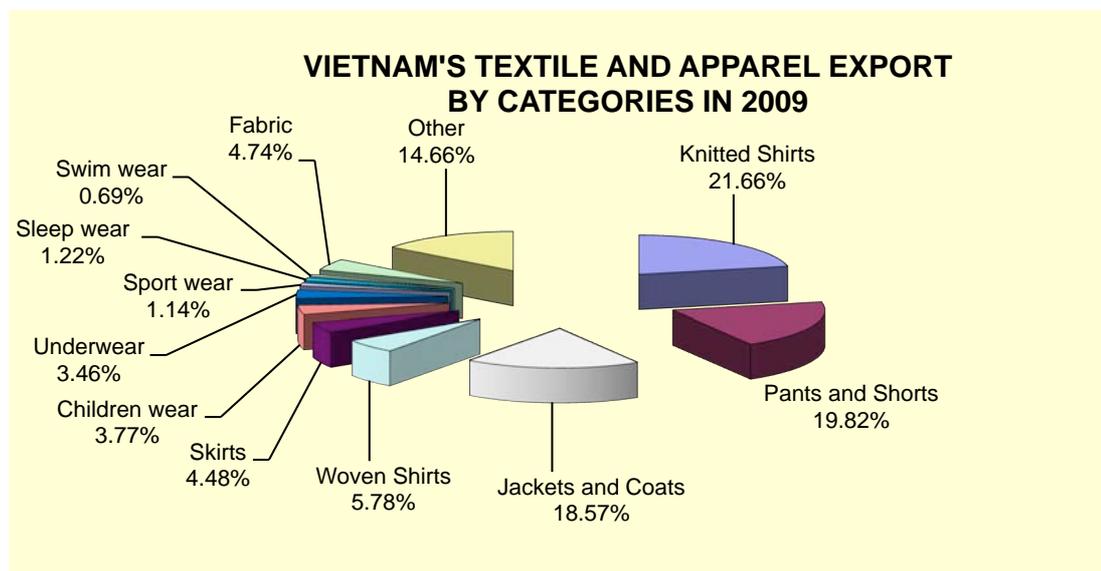
**Table 5.4: Percentage of T&G Enterprises by Location in 2009**

Area	Total share (in per cent)
Southeast Area	58
Red River Delta	27
Northern Central Area and Central Coastal Area	7
Mekong River Delta	4
Northern Midland and Mountainous Area	3
Highland	1

Source: Le (2011)

Figure 5.2 illustrates Vietnam's textile and garment exports by category in 2009. Among all categories, pants, shorts, jackets and coats, and knitted shirts together make up more than 60 per cent of all T&G exports.

**Figure 5.2: Textile and Garment Export by Categories in 2009**

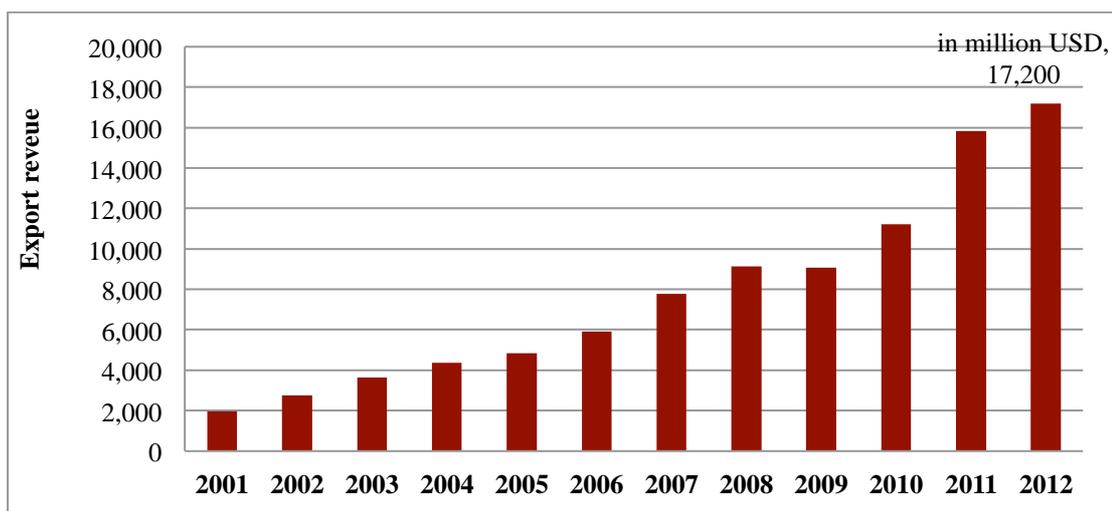


Source: Le (2011)

### 5.2.3. The Structure of Foreign Markets

After the introduction of Doi Moi economic reforms in Vietnam in 1986, international markets started to open slowly for Vietnamese T&G exports. While there was a U.S. embargo between 1975 and 1995, during the late 1980s Vietnam’s major exporting market was the Soviet trade block, though that collapsed in 1991. After 1991, Vietnamese producers focused on the quota-free Asian and European markets (Thomsen, 2007). Vietnam signed a trade agreement with the European Union in 1992, and became a member of the ASEAN trading block in 1995. Figure 5.3 demonstrates the impressive growth in export value between 2000–2011 following these agreements.

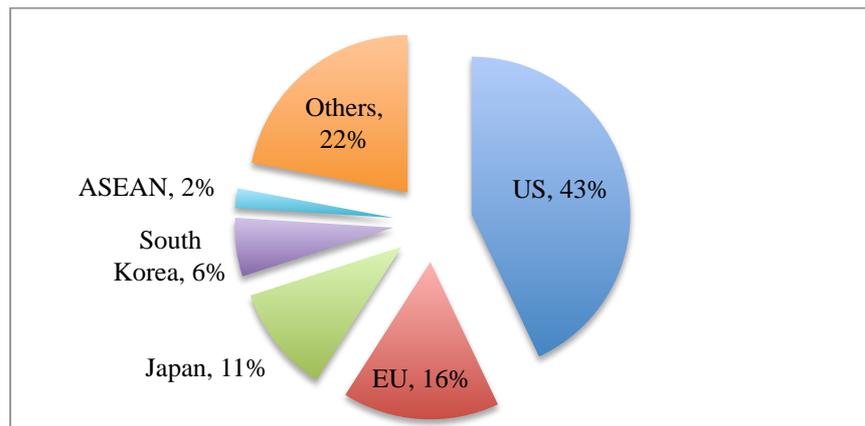
**Figure 5.3: Vietnam T&G Exports 2001–2012 (in USD millions)**



*Source:* Author’s compilation based on Ha (2012)

Figure 5.4 captures the total share of Vietnam’s exports to international markets: the United States (post-embargo), the European Union, Japan, and others in 2011. Today, Vietnam is the second largest T&G exporter to the United States, after China. It is the third biggest T&G exporter to Japan, and the fifth largest T&G exporter to the European Union (Le, 2012).

**Figure 5.4: Vietnam’s Major Foreign Markets for T&G in 2011**



*Source:* Ha (2012)

### **5.2.3.1. The U.S. market**

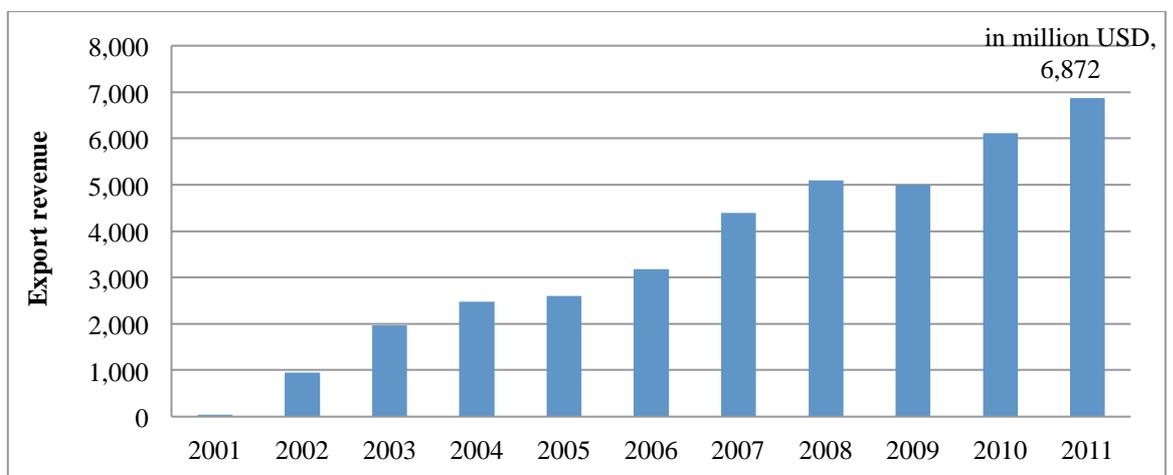
The first attempt to normalise trade relations between the United States and Vietnam was in 1993 when the embargo on Vietnam was lifted, though market entry barriers in the form of extremely high tariffs (in accordance with the Tariff Act of 1930) were imposed on Vietnamese products entering the United States. These tariffs were implemented because Vietnam was denied normal trade relations on the basis that it was a “non-market economy” (Thomsen, 2007). The U.S. decision to grant Vietnam normal trade relations status in December 2001 led to a shift in the structure of Vietnam’s clothing exports. In 2001, Vietnam’s combined clothing exports to Japan and member states of the EU amounted to more than two-thirds of its clothing exports. Prior to normal trade relations status, Vietnam shipped only 2.6 per cent of its clothing exports to the United States in the same year (Martin, 2008).

After receiving normal trade relations status, Vietnam’s clothing exports to the United States jumped to nearly VND 20.65 trillion (USD 1 billion) in 2002, easily surpassing exports to both Japan and the EU-27 and making the United States the largest

clothing export market in 2002 (Martin, 2008). The sharp rise continued into 2003, when more than half of Vietnam’s clothing exports were sent to the United States (Martin, 2008). This rapid export expansion happened because there were no imposed quotas on Vietnamese products headed for the U.S. market between 2001 and mid-2003.

In 2004 and 2005, growth in clothing exports to the United States slightly decreased, in part due to an imposition of quotas by the United States (Martin, 2008). Overall, the export rate steadily rose between 2001 and 2003, decreased a little between 2003 and 2005, and rose again between 2006 and 2007. In 2006 and 2007, Vietnamese exporters shifted their exports from the United States towards Japan and the EU-27 based on Vietnam’s concerns about the possible continuation of protective measures by the United States. In addition, the continued weakening of the U.S. dollar and the slowdown in the U.S. economy made Japan and the EU-27 more attractive markets (Martin, 2008). After another brief decline in 2009, the market recovered in 2010 and experienced a major jump in 2011. Figure 5.5 illustrates the rate of export growth from Vietnam to the United States since 1996.

**Figure 5.5: Vietnam T&G Export to the United States (USD million)**

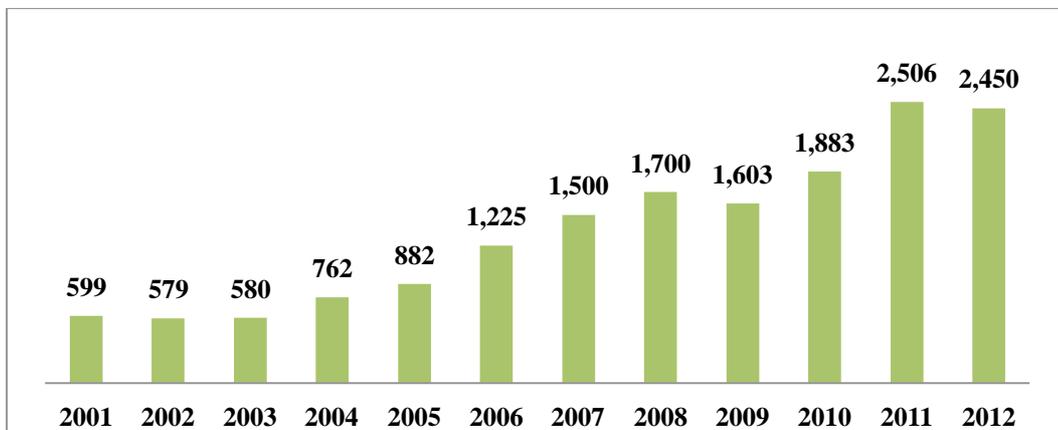


Source: Doan (2012b)

### 5.2.3.2. The European market

In 1992, the EU–Vietnam Textile and Clothing Agreement was signed, and by the late 1990s, 43.3 per cent of Vietnam’s clothing exports were going to the EU market (Hill, 2000). A later version of the EU–Vietnam Textile and Clothing Agreement was ratified in 2003. Beginning in 2005, WTO members were not allowed to place quotas on imports of textiles and garments from other members, but this did not affect Vietnam, as it did not become a WTO member until 2007. Nevertheless, the country was allowed to continue to export without quotas to the EU under a further revision of the bilateral trade agreement (Thomsen, 2007). Even so, Vietnam faces increasing competition from Eastern Europe as these countries have no import tax within the EU, have strong design capabilities, fast delivery times, and lower transportation costs (Agriculture Industry Marine Survey & Inspection Group, 2008). Figure 5.6 shows the Vietnam T&G export growth to Europe.

**Figure 5.6: Vietnam Textile and Apparel Export to the European Union Markets (USD million)**

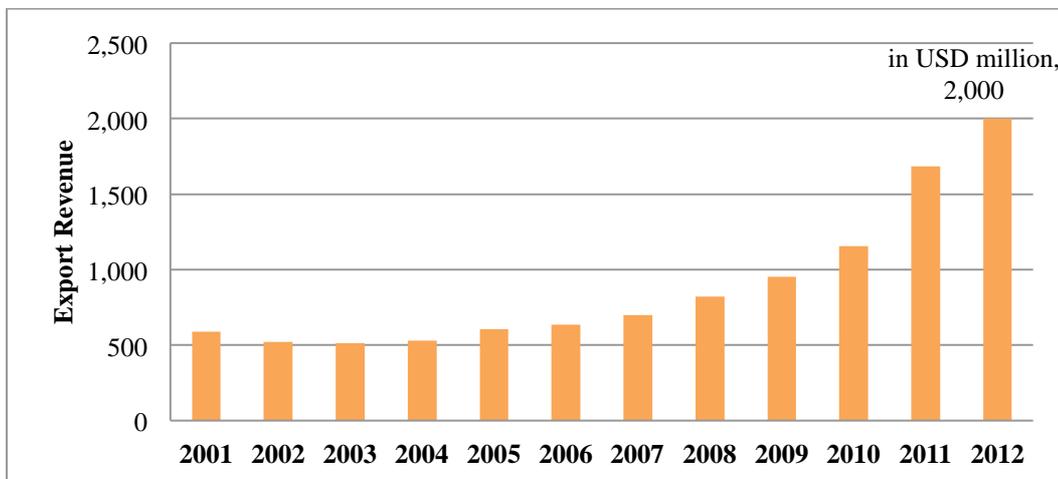


Source: Author's compilation of years 2001–2011 based on (Doan, 2012b); author's compilation of year 2012 based on (Tran, 2013b).

In terms of tariffs, imports from Vietnam to the European Union are subject to a 9.6 per cent Generalised System of Preferences Tariff. While this rate is better than the 12 per cent Most Favoured Nation tariff, it is less advantageous than the Least Developed Country tariff-free access that Bangladesh, one of Vietnam's biggest competitors, enjoys (IBM Belgium, et al., 2009).

### 5.2.3.3. The Japanese market

Figure 5.7: Vietnam T&G Export to Japan (USD million)



Source: Authors compilation of years 2001-2011 based on Doan (2012b); author's compilation of 2012 based on Tran (2013b).

As illustrated in Figure 5.7, Vietnam's T&G exports to Japan experienced a sharp increase between 1998 and 2000. Exports did slow down, however, between 2000 and 2004 after the opening of the U.S. market, but increased after 2004 because of the U.S.

quota restrictions. Before 2009, Vietnamese exports were subject to a 10 per cent Japanese tariff, which ended that year when a bilateral trade agreement between the two countries was signed. The tariff-free access to Japan provided a major boost and continues to strengthen Vietnam's position vis-a-vis other ASEAN exporters, including Indonesia, Malaysia, the Philippines, and Thailand, all of whom already had duty-free access to Japan (IBM Belgium, et al., 2009). One result of this has been that Vietnam's T&G exports to Japan saw a sharp rise between 2009 and 2012, with an increase of 46 per cent in 2011 and 18 per cent in 2012 (Tran, 2013b). In addition to the tariff incentives from bilateral and multilateral trade agreements between the two countries, Japanese companies are also shifting their investments from China to Southeast Asian countries, including Vietnam, due to the increase in labour costs in China (Tran, 2013b).

#### **5.2.4. Vietnam's Textile and Garment Industry in the Value Chain**

A major shortcoming of Vietnam's T&G industry is that garment production has small value-added and profit margins despite its large exports volume. This is largely due to the country's heavy dependence on imported raw materials and inability to move beyond garment manufacturing to fully integrate into the value chain. Without vertical integration, Vietnam cannot take advantage of the value in each step of the process. Table 5.5 features the estimated local content ratio in the T&G industry between 2005 and 2012.

**Table 5.5: Local Content Ratio between 2005–2012 (in USD million)**

Year	2005	2006	2007	2008	2009	2010	2011	2012
<b>Export Revenue</b>	4,838	5,927	7,780	9,130	9,084	11,210	15,830	15,090
								*
<b>Imports of Raw Materials</b>	4,365	4,992	6,356	7,064	6,422	8,912	12,000**	11,000
<b>Import of Fabric</b>	2,399	2,980	3,980	4,454	4,226	5,378	6,750	7,045
<b>Local Content Ratio</b>	<b>0.10</b>	<b>0.16</b>	<b>0.18</b>	<b>0.23</b>	<b>0.29</b>	<b>0.20</b>	<b>0.24</b>	<b>0.27</b>

*Source:* Author's compilation and calculation. \*The General Customs Department claims the actual export value was VND 311.68 trillion (USD 15.09 billion) (Viet Bao, 2013), although estimates by VITAS shows export revenue to be VND 355.26 trillion (USD 17.2 billion).<sup>59</sup> If the earlier data is used, the local content ratio is 27 per cent. \*\* Estimate is based on interview with Le Tien Truong (2012), Deputy Director of Vinatex, who estimated that materials imported in the first nine months was VND 185.89 trillion (USD 9 billion).

To create extra value-added, Vietnamese producers have two options: (1) create their own brands or (2) develop a larger base for textile production. Selling brand products in export markets is extremely difficult because Vietnamese producers have neither the experience nor the customer base to explore this option. Accordingly, the second option is more viable since Vietnam does have a tradition of textile production dating back to the postcolonial period, and thus the sector has the basic capability for

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<sup>59</sup> The newspaper Vietbao (2013) reported that official data and export revenue appear to be higher than reality. During a field interview with a representative at AGTEK, I was told that a large number of materials entered Vietnam through the Vietnam–China border without being recorded.

upgrading and capacity-building. Furthermore, Vietnam has a large reserve of crude oil, which could be used to produce polyester fibre. In other words, for Vietnam to boost its value-added and profit margins, the development strategy must include reducing its dependence on raw materials and expand its textile production.

Based on my interview with VITAS's senior advisor, this strategy was identified by the government and the association in the late 1990s, when a number of important policies, for example, Decision 55<sup>60</sup> and quota criteria, focused on building the textile sector. Unfortunately, these policies were largely unsuccessful. Vinatex's investment in Dinh Vu Polyester Fibre Project (PVTEX)<sup>61</sup> with state-owned Petro Vietnam starting 2008 was another example of this effort. This joint investment project created one of the largest polyester fibre plants in Vietnam producing textile materials from petrochemical products. Dinh Vu Polyester Fibre Project once again affirms that to strengthen the development of the T&G industry, Vietnam must focus on reducing its dependence on imported materials, especially from China, and expand its textile production. Table 5.6 explains the production chain in the textile and garment industry.

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<sup>60</sup> Decision 55/2001/QĐ-TTĐ (“Decision 55”) is the first industrial policy that was clearly formulated by the Vietnamese government to turn the T&G industry into an export-oriented industry. It was set out to boost investment and industrialization of the textile and garment industry by providing 35 trillion dong (approximately USD 2.2 billion) between 2001 and 2005 in various projects (Martin, 2008). Decision 55 was revoked half way through implementation.

<sup>61</sup> For more information on PVTEX, see [http://www.pvtex-dv.vn/en/Foundation-and-development\\_77.aspx](http://www.pvtex-dv.vn/en/Foundation-and-development_77.aspx)

**Table 5.6: Stages of the T&G Value Chain**

Stages	1. Raw Material Suppliers	2. Textile Companies	3. Clothing Manufacturers	4. Wholesalers and Exporters	5. Retailers
Natural Fibres	Cotton, Wool, Silk, Hemp	Thread, Yarn, Fabric	Cutting Assembly Finishing	Labelling, Packaging, Shipping	Marketing, Sale
Synthetic Fibres	Oil, Natural Gas	Polymers Synthetic, Fibres, Cloth	---	---	---

*Source:* Martin (2008)

Based on this production chain, Vietnam's trade and competitive advantage has been largely based on Stage 3, which uses low-cost labour, even while production in Stages 1 and 2 has shrunk drastically in the last two decades. The T&G industry became an importer of cotton and wool (Stage 1) in the first decade of the 2000s as domestic production of both types of material decreased dramatically, from 32,267 hectares (79,733 acres) in 2003 to 3,000 hectares (7,413 acres) in 2009 (Ha, 2012). In particular, cotton prices in international markets have fluctuated greatly in the last few years, causing problems for Vietnamese textile manufacturers. A former vice president of Thanh Cong T&G Company confirmed for me in an interview that Vietnam does not have a competitive advantage in cotton production and thus it must focus on producing textiles either from natural fibre or polyester fibre.

The T&G industry also has not developed a broad textiles supply base (Stage 2). While Vietnam is an exporter of fibre – up to VND 28.91 trillion (USD 1.4 billion) in 2012 (Thu-Ha, 2013) – it is an importer of fabric because the textile sector is especially weak in dyeing and finishing, and thus cannot produce high-quality textiles. The disparity in development between the textile and garment sectors is arguably due to the historical and technical make-up of the two sectors.

For example, before Doi Moi in 1986, the textile sector was larger and more

productive than the garment sector. During the 1990s, however, the textile sector fell behind and it continues to shrink. In 2011, it was down to approximately 27 per cent of the overall T&G industry (Le, 2011). Hill (1998) provides two possible explanations for the ailing of the textile sector. First, the collapse of Russian and Eastern European markets disrupted the sector's major export markets, causing a considerable decline in output. Second, Doi Moi led to a major "shake out" of the industry, especially for SOEs. The government's gradual withdrawal of subsidies caused state-owned textile factories to scramble to compete with both foreign and private entrants, especially with China (Hill, 1998). Hill's observation was confirmed in my fieldwork in 2011 when a number of my interviewees expressed similar opinions. Subsequently, Vietnam's low-quality textiles have lost ground to higher-quality foreign products, and now only supplies goods to the domestic market.

Another reason is that, by its nature, the textile sector is capital-intensive and dependent on both economies of scale and experience in technology management. Vietnamese producers are weak on both criteria. For instance, an interviewee at VITAS explained that it requires, on average, VND 310.56 billion (USD 15 million) in investment capital to establish a dyeing factory that could produce 10 million meters of fabric. The Vietnamese textile sector also suffers from limited skilled workers (Nghị, 2011). The garment sector, on the other hand, is a consumer-oriented industry with "mature" technology and significant capital investment is not required. What is more important in this sector is knowledge of international marketing channels, attention to quality control, management of stocks, and capacity to reliably deliver outputs. In addition, as an interviewee who is an expert and representative at AGTEK explained, because learning requires less time and effort, it is easier to hire and train new workers, so there is no labour shortage in the garment sector. In essence, the textile sector's

history (removal of subsidies and market) and its structure (being both capital- and technology-intensive) hurt the development of the textile sector after the liberalisation of the industry. Table 5.7 captures the difference between the textile and the garment sectors.

**Table 5.7: Key Distinctions Between the Textile and Garment Sectors in Vietnam**

Characteristics	Textile	Garment
<b>Intensity</b>	Capital-intensive	Labour-intensive
<b>Scale of Economies</b>	Important	Less important
<b>Ownership</b>	SOEs, foreign firms	More diverse: SOEs, foreign and private firms
<b>Vertical Integration</b>	Common to have integration into spinning and weaving	Some integration during the planning period but less common as garment exports increase
<b>Size</b>	Mostly large firms	Mostly small- to medium- sized firms
<b>Market</b>	Mostly domestic (except for unfinished fibre)	Mostly foreign (esp. the EU, Japan, and US)

*Source:* Adapted from Hill (1998)

Finally, Vietnamese exporters have not gained capability in either global wholesale or retail markets (Stages 4 and 5). To move along to these stages, Vietnamese T&G firms must move from relying on buyer's inputs to finding independently sourced inputs. Tran (2012a) points out that because 70 per cent of inputs are still provided by suppliers or brand holders, it is difficult for Vietnamese T&G producers to break into the established relationships between brand holders and their suppliers.<sup>62</sup> Data from my fieldwork in 2011 confirmed this assertion. A high-ranking VITAS representative

<sup>62</sup> Local content in 2012 was also roughly 27 per cent based on VND 309.82 trillion (USD 15 billion) in revenue, and roughly VND 227.2 (USD 11 billion) in imported materials.

informed me that up to 70 per cent of Vietnamese producers still do not have access to independent source of inputs. In 2012, the local content ratio was at roughly 27 per cent (see Table 5.5). Between 2007 and 2012, Vietnamese producers were active in marketing and sales (Stage 5) largely in the domestic market, especially in promoting medium- to high-end apparels.<sup>63</sup> This is a stepping-stone to eventually penetrating the international market.

### **5.3. Constraints in the Textile and Garment Industry**

In the previous section, this thesis asserted that, so far, the T&G industry has been largely trapped in the low-skill segment of the value chain in garment production. While Vietnam shows some comparative advantage in natural and polyester fibre production, supplies for finished cloth and fabric are lacking. In addition, the industry shows no signs of entering the global value chain as wholesalers or retailers. Finally, only a limited number of producers—approximately 30 per cent—have been able to sign Free on Board (FOB)<sup>64</sup> contracts with foreign buyers.

This section assesses the constraints that inhibit the industry's development and explains the industry's failure to upgrade and to move up the value chain. There are four identifiable constraints.

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<sup>63</sup> The low-end market is largely occupied by cheap Chinese apparel that is imported illegally across the border.

<sup>64</sup> “Producing garments on FOB (Free On Board) terms requires the producer to deliver goods on board a vessel designated by the buyer. The seller fulfils its obligations to deliver when the goods have passed over the ship's rail. Producing garments for FOB business generates significantly higher margins since the manufacturer sources the fabric him/herself and, in some cases, contributes to the pattern design. However, due to the skills and capital required, FOB business is still too risky for most private and state - owned Vietnamese producers” (Buisman & Wielenga, 2008, pp. 39-40).

- a) A lack of skilled labour, especially in the textile sector, although a labour shortage has been a major issue across the board.
- b) A shortage of land and capital, especially in subsectors such as weaving, dyeing, and finishing (which are capital- and technology-intensive).
- c) Weak coordination and management capacity at both state and firm levels, which discourages the industry to orient itself for strategic growth.
- d) A lack of modern machinery and equipment, so technical learning and upgrading has been slow.

These constraints are now discussed individually.

### **5.3.1. A Lack of Skilled Labour**

The significance of skilled labour shortages is disputed by researchers in the field. Some investigators maintain that Vietnam has certain competitive advantages over China, including that Vietnamese textile workers have proficient embroidery and needlework skills (Nieuwoudt, 2009). Since manufacturers need these special skills, the Vietnamese textile labour force ought be in a good position. However, if the T&G sector is split into downstream (Stage 3) and upstream production (Stage 2), a larger workforce is in the garment sector, where jobs require a shorter learning curve (approximately three months according to two producers that I interviewed), and it is customary for garment factories to provide training.

Conversely, the textile sector faces a substantial shortage of technicians and engineers, especially in the fields of spinning, weaving, dyeing, and finishing. Interviewees at both VITAS and AGTEK pointed out to me that labour shortages have been an important inhibitor to the T&G industry, but especially in the textile sector for

two reasons. First, engineering students tend to study for high-tech industries, such as computer science and electronics, rather than for the textile sector. This negative image is most likely carried over from when textile producers were only state-owned and perceived as bureaucratic and inefficient. The second reason is low wages. In my fieldwork in 2011, an engineer who works for a state-owned textile producer in Ho Chi Minh City told me that his salary is approximately VND 3.09 million (USD 150) per month. In the telecommunications industry, engineers with similar years of experience (2–5 years) make between VND 5.18–10.3 million (USD 250–500) per month. The same engineer explained that the only reason he has not switched to another field is because he likes his job and is reluctant to take the risk of changing career.

The problem of skilled labour shortage is not unknown to the Vietnamese government. In the past two decades, Vinatex was assigned by the government to open training campuses in both the north and the south to address these shortages. The state owned corporation now has five colleges that specialise in technical training for the textile sector, including associate degrees in mechanical engineering, sewing technology, and fashion design. As of 2013, three campuses operate bachelor degree programs in engineering. Despite this effort, businesses in this industry, especially in the textile sector, continue to struggle to find workers who are genuinely interested in working in textile production. Workers reportedly demand higher pay and, in general, tend to switch jobs to foreign producers after being trained locally.

### **5.3.2. A Shortage of Capital and Land**

It has been well documented that throughout the 1990s and into the early 2000s loans at low interest rates from the major Vietnam state-owned banks were extremely

difficult to obtain, especially for private enterprises (Hill, 1998; Thomsen, 2007). During this period, according to Corte and Berggren, credit was largely available to SOEs, though the official credit system lacks transparency and information to confirm this (see Thomsen, 2007). However, “Since private enterprise owners generally lack ownership rights<sup>65</sup> over land and buildings, they have few possibilities to offer collateral against loans from the official banking system” (Thomsen, 2007, pp. 761-762). In essence, market constraints related to capital and land shortage were less severe in the state sector because SOEs were privileged to have easier access to credit through the state-owned banks and historically, they occupied large area of land given by the government during the centrally planned period. By comparison, access to capital and land were much more constrained for private, especially domestic enterprises such that it hindered the development of these enterprises.

The lack of capital and access to credit is particularly an obstacle for Vietnamese producers achieve higher value addition products, especially for the EU market. First, working capital is needed to order and pay for stock, fabric, and components, and then to produce on what are usually 90-day payment terms. Second, EU buyers are increasingly reluctant to accept contracts that are based on Letters of Credit<sup>66</sup>. Third, capital is required for wages and salaries between orders because if there is a gap of time between orders, investors must continue to pay wages while workers are waiting for work. Thus,

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<sup>65</sup> In Vietnam, land is not considered private property, and hence enterprise owners either rent land or obtain land-use rights (so-called red books) for it. Renting is relatively expensive and also insecure. Red books can be obtained in two ways: either through transfer or through leasing from the government. Obtaining land-use rights through leasing is a very lengthy and costly process. As a result, an estimated 70 per cent of all transactions in red books take place in the vibrant, yet unofficial, market through which private businesses mainly lease plots of land from SOEs or farmers (Buisman & Wielenga, 2008, p. 39).

<sup>66</sup> The seller discounts the Letter of Credit at local bank or uses it as collateral for loans. A bank Letter of Credit guarantees that a shipment from the seller to the buyer will be delivered on time and for the correct amount.

capital must remain readily available to cover for this period (Thomsen, 2007). In recent years, changes have been made to allow private enterprises to have more access domestic capital through bank loans. However, at 16.94 per cent in 2011 (World Bank, 2013), the lending rate remains exceptionally high and unaffordable for small- and medium-sized enterprises.

Shortage of capital and credit also explains why private and domestic SMEs prefer to participate in this sector instead of in textile manufacturing. As a consequence, the textile sector is largely dominated by either SOEs with state financing or foreign investors. As SOEs are gradually equitized, more FDI is invested in the textile sector, although almost all of their production is used either for direct or indirect exporting<sup>67</sup> and thus textiles produced by foreign investors in Vietnam are largely not available in the domestic market. Consequently, capital investment from FDI has failed so far to supply textile materials for garment producers in the domestic market. In essence, the bottleneck in textile materials for garment production continues to be a major shortfall, much of it caused by private businesses' shortage of capital and lack of access to land and credit.

### **5.3.3. Weak Coordination and Management Structure**

The textile and garment industry has weak coordination and management structures, which inhibit its development. At the state level, there are nearly no close exchanges between the state and T&G firms. Hill (1998), during fieldwork in the late 1990s for UNIDO, reported that “channels of communication between the industry and the government do not appear to be well developed” (p. 54). At the ministry level “senior

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<sup>67</sup> Indirect exporting occurs where foreign investors use their own textiles manufactured in Vietnam as materials for their garment production also in Vietnam. This process reduces transaction costs.

government officials have great background knowledge of the industry and its historical development,” however, private firms feel the opposite, in that the government knows little about this sector, is not interested in their problems, and offers an unfriendly regulatory environment (Hill, 1998, p. 53). More than a decade later, Hill’s observation was confirmed through my interviews with garment producers in Ho Chi Minh City during my 2011 fieldwork. Small business owners felt largely detached or were unaware of the policy agenda in Hanoi and did not think that the government played a role in supporting their businesses (interview, 2011). Small garment producers, in particular, felt no connection with either VITAS or AGTEK to explore business relationships with foreign investors. A small domestic garment producer in Ho Chi Minh City told me in 2011 that, on the whole, she prefers that the government should not interfere with her business activities, stop administrative and tax harassments, and “leave her alone to run the business.”

Of the two associations representing textile and garment firms, VITAS represents state enterprises while AGTEK represents private firms mostly based in the south<sup>68</sup>. It appears that these two associations are neither in close contact with one other nor do they function in expected ways to channel information and facilitate business opportunities with foreign buyers. The lack of communication may be due to the fact that these associations serve two different types of enterprises. VITAS was created by the Vietnamese government, is always headed by the chairman of Vinatex and is known to have close contacts with SOEs and is supportive of them. AGTEK was originally created by businessmen of Chinese-Vietnamese descent in the south to promote business opportunities and trade among medium-sized southern producers, is mostly self-governed by its members, is said to have only loose contacts with the Ministry of

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<sup>68</sup> There does not seem to be representation for private firms in the north.

Industry and Trade (MoIT), with weak lobbying capability. AGTEK functions largely to share information and business opportunities among its members.

Among the state enterprises, there are only a few research institutions, which have limited capacity and mostly operate under Vinatex. None of these institutions can support producers, especially SMEs, with updated market information, technologies, or strategies to attract global buyers. With a lack of coordination at the industry level, businesses often have to find their own source of supplies and business contracts. As a result, the SMEs in the industry have limited competitiveness, except for the ability to lower prices and squeeze wages, and are slow in acquiring new capacity through upgrading their technical and management capacities. In Table 5.8, VITAS provides an overall rating of the supporting organisations for Vietnam's garment and textile industry, ranking them from 1 (no support) to 5 (very strong support). While VITAS has the highest scores, it nonetheless remains disconnected with non-members and SMEs in the south. These supporting institutions' poor service quality and lack of coordination between the state, buyers, and producers explain the industry's limited capacity to move up the value chain and to increase value addition for their exports.

**Table 5.8: Summary of Vietnam’s Trade Support Organisations in the T&G Sector**

	Training	Trade Info.	Design Research	Technical Research	Policy Advocacy	Remarks
VITAS	3	4	0	0	4	Plays important role in policy advocacy; good source of information but needs better dissemination
AGTEK	3.5	3.5	0	0	2.5	Quite active in training and trade information
Research institutes and universities	2	0	2	2	1	Education and research loosely connected to enterprises
Vietnam Fashion Design Institute (FADIN)	2	0	3.5	0	2	Good at design research for fashion purpose; loosely associated with enterprises’ requirements
Vocational schools	2.5	0	1	1	0	Sewing training offered is quite basic; backward facilities

Source: VITAS (2006). 1 = no support; 2 = weak or poor support; 3 = average support; 4 = strong support; 5= very strong support.

At the firm level, except for those that have FDI investment, local businesses remain passive in its management, especially regarding industrial upgrading, developing global marketing strategies, and confronting competition from abroad. Hill (1998) points out that senior management of SOEs lack significant commercial experience, which is a customary prerequisite for running a large corporation, and often operate “as a little more than production units” (p. 46). In addition, “the management of SOEs seems to lack any real international marketing expertise, and appear content to wait for overseas buyers to approach them with orders” (Hill, 1998, p. 46). These observations no longer hold for some of Vinatex largest producers, such as Phong Phu, Viet Tien, or May 10, and

especially for joint-stock companies, such as Nha Be and An Phuoc. However, a VITAS representative who used to work as a high-level manager for Vinatex told me that he observed that smaller and provincial SOEs continue to maintain weak management capacity, though VITAS has been active in providing management training for its members.

Similarly, Schaumburg-Muller (2009) describes that when firms were asked about their strategies for product upgrading, obtaining new customers and markets, and strengthening their design and marketing capability, firm owners “seem to be passive price takers with no intention or possibility of using the price as a parameter in relation to their buyers, and there was no clear sign of a changing strategy with respect to sourcing of materials” (p. 169). The widespread lack of management skills and limited market knowledge, especially among the SOEs, is causing dependency on inputs from buyers. Overall, there is a gridlock in coordination and management skills at various levels, from state to private, within the industry.

#### **5.3.4. Machinery, Equipment, and Technical Upgrading**

In his fieldwork, Hill (1998) found that in the late 1990s, the stock of equipment in many of the businesses was antiquated and that “most firms appear to have an unusually wide range of machinery, some of which has reportedly been delivered on an ad hoc basis to firms as part of aid programs and without any integrated production operating plan” (p. 46). The situation is slightly more positive with foreign investment. SOEs in joint ventures with foreign partners can take advantage of foreign technology, management, and marketing skills, but even here there are mixed results. As several interviewees said to me, while some SOEs managed to upgrade and became more

competitive such as Nha Be Corporation Joint Stock Company and An Phuoc Company, others lagged behind from management's poor incentives to upgrade.

[Some] SOEs see these joint ventures as a means of covering their basic operating costs, rather than as a dynamic business calculation in which local partners can absorb, emulate and then ultimately innovate on the basis of the foreign firm's superior technological, managerial and marketing skills. The literature on foreign investment and 'spillovers' suggests that this is the major potential benefit for local partners, and that in the right environment these dynamic benefits can be substantial. Surprisingly, Vietnamese SOEs interviewed did not appear to attach much importance to the possibility that joint ventures could provide a means of increasing their own levels of efficiency and productivity (Hill, 1998, p. 46).

Despite this grim outlook, in the past decade the T&G industry has attracted a substantial amount of foreign investment. Between 2007 and 2012, there have been 485 FDI projects in the T&G industry with a total registered capital of more than VND 41.31 trillion (USD 2 billion). In 2012, the largest foreign investor in the Vietnamese textile and clothing industry was Japan, followed by South Korea and Hong Kong. According to an interview with an expert and representative at AGTEK, firms with joint ventures with foreign investors have outperformed domestic firms in technological adoption. However, spillovers to from foreign investment to domestic labour force and firms have been limited, and foreign investors actively hide trade secrets and technical expertise (such as dyeing technique) from local employees and partners.

For domestic producers, even though additional investments have been made to improve machinery throughout the industry, it has been too little and does not satisfy the demand for rapid expansion and aggressive upgrading so as to increase production and quality (IBM Belgium, et al., 2009). Specific data on technology investment is limited for this sector, although starting in the early 2000s, there is some evidence of investment in modern machinery. In 2006 the sector added 171,720 new spindles and 5,840 open-end rotors. This followed a period of expansion between 1997 and 2006, when 840,132 spindles and 19,784 open-end rotors were obtained (Buisman & Wielenga, 2008). In the weaving sector, Buisman and Wielenga (2008) reported that the sector added 6,012 shuttle-less looms between 1997 and 2006. All this data indicates a degree of rapid growth and perhaps even technological upgrading in the industry. These figures are summarised in Table 5.9, which shows that Vietnam is slowly moving towards modern manufacturing technology (Buisman & Wielenga, 2008).

**Table 5.9: Investment in Machinery between 1997 and 2006**

<b>Investment/Year</b>	<b>1997-2006</b>	<b>2005</b>	<b>2006</b>
<b>Spindles</b>	840,132	—	171,720
<b>Open-end rotors</b>	19,784	—	5,840
<b>Shuttle-less looms</b>	6,012	476	1,357

*Source:* Buisman & Wielenga (2008)

Although it appears that technology adoption and the value of technical training remains limited, during my fieldwork in 2011, representatives at VITAS and AGTEK each pointed out that it would be misleading to think that Vietnamese producers do not have advanced machinery in both sectors. They explained that the real problem lies in

learning how to use these machines to improve production and output quality, to which Vietnamese producers do not give due attention. The VITAS representative told me that SOEs would often spend large capital investments to buy the hardware (equipment) but would skip buying the software (know-how) that shows how to operate the machines. These managers thought that the firms could learn how to use the machine on their own on the basis of learning by doing instead of receiving training either from foreign sellers or the software that comes with the machines. However, as engineers are afraid of damaging the new machines, they often avoid operating and, thus learning, them. When they did, they would use them only to produce their traditional low-quality products. This short-sightedness caused these producers to lose advantage of the new technology to maximise their production capacity. “When it comes to technological upgrading, textile managers are slow in learning and integrating new technology to their productive operation,” said my interviewee from VITAS.

In summary, the T&G industry faces a number of difficulties in advancing technological adoption to boost productivity, especially among domestic producers. A major constraint for domestic (mostly state-owned) textile producers in acquiring new equipment and updated technology is that they are capital-intensive and require a great deal of effort in learning the new equipment and technology. And, as mentioned above, when new machinery is purchased, there is a failure to acquire the knowledge of how to use them. In particular, the financing of the learning process is subject to important market failures (Khan, 2009b). This constraint will become more urgent as domestic firms look to move up the value chain.

### **5.3.5. Introduction to the Case Studies**

In sections 5.2, this chapter outlined the preconditions of the T&G industry by discussing its historical context, chronology of trade agreements with major countries, and the structure of firms. So far this chapter has argued that the industry's low value-added and profit margins in exports and its failure to move up the value chain has largely been due to a weak upstream sector, especially in textile production. Section 5.3 identifies four market constraints that have held back the industry's industrial development: (1) lack of skilled labour, (2) shortage of capital and land, (3) weak coordination and management structure, and (4) ineffective machinery and technical upgrading.

The following sections present three case studies that together offer a detailed picture of the rent-seeking and rent management factors within the T&G industry and how they influenced the development of the industry as a whole. The purpose of these case studies is to assess the mixture of political, institutional, market, and firm factors (the DRMA framework) to explain why there are high or low levels of effort put forth to raise productivity. The three case studies consist of (1) an examination of the quota period, (2) an investigation of the "China factor," and (3) the mixed role of Vinatex as rent-seeker, policymaker, and industry facilitator in the state sector. This chapter ends with some observations in the generation of a developmental rent management strategy as the industry moves forward.

#### **5.4. Case Study 1: The Quota Period (2001–2006)**

MFA quota restrictions for Vietnamese textiles and garments started in 1992 based on a bilateral agreement with the European Union (Thoburn, 2007).<sup>69</sup> In 2001, Vietnam officially gained access to the U.S. market with the signing of the US–Vietnam

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<sup>69</sup> Japan did not impose MFA quotas or prohibitive tariffs on Vietnamese T&G exports.

BTA. This agreement effectively made Viet Nam eligible for American MFA quota. The agreement gave Vietnam a short grace (or quota-free) period from 2001 to 2002 (Thoburn, 2007). Starting in January 2003, the United States imposed an MFA quota to restrict trade volume under the US–Vietnam Textile and Garment Agreement.<sup>70</sup> The American MFA quota officially ended in 2006, preceding Vietnam’s membership to the WTO in January 2007.<sup>71</sup> This case study largely details quota distribution for exports to the United States between 2001 and 2006, focusing on 2003 and 2004 where mismanagement of quota distribution reached its height. This is an important case study because the quota period presents a missed opportunity for industrial upgrading in the T&G industry. It also provides an example of a rent intended for learning that turned into a redistributive rent.

When the United States assigned the MFA quota to Vietnam in 2003, the government passed the responsibility for the allocation of the quota to individual plants to the Ministry of Commerce and Ministry of Industry,<sup>72</sup> which were the ministries in charge of the T&G industry at the time. Subsequently, quota distribution was reassigned to the Inter-ministerial Managing Group (hereafter, the managing group), comprising representatives from the Ministry of Commerce, Ministry of Industry (MoI), and VITAS. This group was led by Khu Xuan Bui and Dau Van Mai, both deputy ministers of the Ministry of Commerce, and by Thang Van Le, deputy director general of the Import–Export Department of the Ministry of Trade.

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<sup>70</sup> Details of the US–Vietnam Textile and Garment Agreement can be found at [http://vietnamese.vietnam.usembassy.gov/textile\\_agreement.html](http://vietnamese.vietnam.usembassy.gov/textile_agreement.html).

<sup>71</sup> MFA quota restriction ended in January 1, 2005 for all WTO members. Because Vietnam did not join the WTO until 2007, the US MFA quota applied to Vietnamese exporters until 2006.

<sup>72</sup> The Ministry of Commerce and the Ministry of Industry were the predecessors to the MoIT.

At the height of this rent seeking period between 2003 and 2004, there were significant rent seeking activities associated with getting a quota allocation and this resulted in firms bribing to obtain quotas. As a result of these rent-seeking activities, much of the rent that could potentially have been used to upgrade firm capabilities were transferred to the agencies making the allocations. Our case study assesses how this rent-seeking experience affected the learning effort in the industry and examines the rent management mechanism that produced the negative rent outcome.

It should be noted that Vietnam's access to the U.S. market and subsequently the U.S. MFA quotas had positive effects on the initial setup of the industry leading to its rapid expansion – revenue growth jumped 40 per cent in 2002, 33 per cent in 2003, and 20 per cent in 2004 (see Table 5.1). Without having access to the American market, the T&G industry would not have expanded this much – doubling the size of revenue growth in 3 years is a significant increase. Nonetheless, this case study only assesses the secondary effects of the MFA quota period asserting that the quotas were not allocated efficiently to further enhanced technology acquisition and vertical linkages between the textile and garment sectors. In this context, this author does not dismiss the relevance and importance of the U.S. MFA to the T&G industry's development. However, it is beyond the scope of this case study to trace how the U.S. MFA had such primary effects. Rather, this case study aims to analyse the secondary effects. That is, once the garment industry had already grown to certain extent (up until 2002), the allocation of quotas could have been managed more effectively than it was to promote value addition and industrial upgrading for the industry as a whole.

#### **5.4.1. DRMA Step 1 - Learning Rents**

Although quotas are often viewed as a restriction to trade, it was considered a benefit by Vietnamese garment producers because it came with the opening of the large U.S. export market that these producers could not access prior to 2001. A quota imposed by an external actor like the United States on its overall garments imports, with quotas for individual countries, for instance the ones granted through the United States–Vietnam Textile and Garment Agreement, creates rents for the Vietnamese producers who can export using their quota allocations. This is because the market price is raised in the U.S. as a result of the quotas to a level that is higher than it would have been, and indeed this is the intention to protect domestic U.S. garments producers. Despite the fact that the Vietnamese government did not create the quota rents, it managed its allocation to individual Vietnamese producers through its institutional mechanisms of quota allocation. The rent management factor therefore involved the policies and institutions that determined quota allocation. According to the *VietnamNet* (2004), quota allocation was primarily based on the following criteria.

1. The prior year's performance or previous production capacity;
2. New investment in machinery;
3. Percentage of local content, especially local textiles in garment exports;
4. Export relationship with large U.S. importers and distributors;
5. Location: priority was to be given to garment producers in poor provinces.

Procedurally, a garment manufacturer must submit an application for quota together with documentations proving that he or she had met the criteria for quota allocation including advanced contracts with foreign buyers. The managing group subsequently reviewed the application. If it was approved for meeting all the criteria, a

quota was then granted to the firm with a small administrative fee called *gia cong* in Vietnamese (or official price).

The official criteria for quota allocation were thus aligned to reward investment, success in exporting and production and also to address regional inequalities. Elements of the formal rent allocation mechanism could therefore be interpreted as providing ‘learning rents’ for both the garment and the textile sectors. First of all, the criterion—enterprise performance in the prior year—targeted technical and organisational capability building. That is, the more an enterprise improved its industrial capability based on the previous year’s performance, the more likely that enterprise received a quota the following year. Second, the local content criterion was intended to promote the use of local materials (textiles and accessories) in garment exports, thus providing a market for the textile sector to expand production and potentially to upgrade their price and quality under pressure from the garments exporters. Finally, the criterion of rewarding new investment in machinery and facilities should have encouraged T&G producers to update their technical capability and equipment to boost productivity.

#### **5.4.2. DRMA Step 2 – Redistributive Incentives of the Rents**

The incentives potentially created by the rents and the formal allocation rules could induce higher investments, support learning, raise domestic content, and reduce regional inequalities, or they may just be captured by powerful groups and resulted in redistributive rents. In this case, there are two potential incentives created by learning rents from the American MFA quota. First, there were incentives and potential pressures for expanding production, technology acquisition and linkages given quota allocation’s criteria and export potentials to the U.S. market. This is because the allocation of the

quota did give the quota recipients a rent and there were conditions on the quota allocation that should have produced incentives and compulsions to upgrade if the conditions were properly monitored and enforced.

Second, rents could also be captured by connected firms willing to bribe to obtain additional quotas from the managing group. In 2003, the *co che xin cho* (application-granting mechanism) set up by the managing group not only did not create real pressure for productive outcomes, but also actually encouraged rent-seeking activities that simply resulted in the redistribution or transfer of the rents to other agencies. For example, in 2004, Truong Dinh Tuyen, then Minister of Commerce, admitted to the Party Congress that the stakes were too high, so rent seeking to obtain quotas was unavoidable. “Where there is a distribution mechanism, there will be wrongdoings,” he said (see Phuoc-Vinh, 2004). He also acknowledged that the allocation mechanism, which was arranged by the managing group through a granting structure, was largely flawed because it lacked independent monitoring and supervision from a higher authority or agency (VietnamNet, 2004).

In my fieldwork in 2011, one interviewee, who worked in the management of a T&G SOE in 2004, asserted that the management group was not interested in boosting industrial capability, improving local content, or developing upstream industries for garment exports. In his opinion, despite these formal criteria for quota application, government officials in charge of the allocation were engaged in the capture of financial benefits by allocating quotas.

### **5.4.3. The Scandal**

The scandal was first exposed in late 2004 when the deputy director general in the Import–Export Department, Le Van Thang, reportedly received money under the table from A Chau, a Vietnamese garment manufacturer, on a number of occasions and yet did not provide the quota that he promised. The company reported the case to the law enforcement authorities, which led to the discovery of a large-scale exchange of quotas on the black market at both the ministry and the firm level.

A Vietnamese newspaper, *VNExpress* (2004) reported that a common scenario was that Company A would apply and receive a promise that it had a quota allocation from the managing group (for example, 20,000 dozen garment pieces). However, by the time the garments were ready to be sent to a U.S. buyer, Company A would have only received one-third of its requested quota despite having proof of meeting all of the criteria. Another scenario was that officials in the managing group would receive bribes to sign quota allocations for garment producers who did not meet the criteria for quotas. For instance, Company B did not have a factory, workers, or equipment, and was only specialised in import–export (not manufacturing), yet it received a quota for 1 million dozen garment pieces (*VNExpress*, 2004). Similarly, although some state-connected enterprises in Hanoi were relatively small, they often obtained large quotas, which they then either were not able to deliver on time or had to subcontract to other enterprises.

An interviewee in my fieldwork, who was a “quota broker” at the time, said that companies obtained fake contracts with textile firms to falsely report local content percentage, as well as providing false reports of previous performance in order to justify large quota allocations. In 2004, the Vietnamese newspaper *Vietbao* pointed out that there was a business that falsely reported that they bought textiles from local producers and that Le Van Thang signed quota authorisations, knowing that the claim was false (Tung-Duy, 2004). It eventually was learned that Thang had received multiple bribes

from quota brokers and, in the end, 17 government officials and businessmen was sent to jail for bribery, corruption, and abuse of authority for personal enrichment (Tung-Duy, 2004).

#### **5.4.4. Dynamics of Rent-seeking**

The rent-seeking activities during the quota period took two forms. In the first, as just described, firms bribed government officials to receive quotas from the managing group, despite their weak productive capacity or false claims of meeting other criteria.

The second form involved quota exchanges in the black market. Initially, the government announced that quota exchange among enterprises was illegal. The law made clear that an enterprise that could not fulfil its quota must return the quota to the managing group for reallocation. However, between 2003 and 2004, the deputy minister of the Ministry of Commerce Dau Van Mai, signed three official documents that permitted enterprises to *chuyen nhuong* (freely exchange) their quota allocations among themselves (Cong-Minh, 2006). Consequently, these official documents allowed enterprises to buy and sell quotas that they had illegally obtained from the managing group, thus creating a market for quota exchange. This development immediately caused quotas to become overvalued, and even led to speculative trading. The same interviewee, the “quota broker”, told me that at one time in early 2004, the unofficial sale price of quotas in the black market was many times higher than its initial purchase price of quotas (including the cost of bribery).<sup>73</sup> In this context, the second form of rent-seeking took place. For example, there might be two garment producers—one who received quotas from the government but either was unwilling or unable to produce (GP1) and

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<sup>73</sup> *VNExpress* (2004) reported that quota price in the black market was possibly 20 times higher than the official fee in some categories that were in high demand such as t-shirt.

one who did not receive the quota but could produce (GP2). GP2 would likely buy the quota from GP1 in order to produce and sell their garment to U.S. buyers.

Under these rent-seeking systems, all parties made a profit from quota exchange. The government official (GO) received bribes; GP1 received rents from the difference between the bribe that it paid out to GO1 and the payment that it received from GP2; and GP2 received a profit from selling garments to American buyers. However, GP2's profits were much less if it had to buy its quota from GP1 instead of being allocated its quota through the legal system, which only requires a small administrative fee. According to research done by *VnExpress* (2004), the unofficial costs of payment for the quota often took approximately one-third of the total value of the contract signed between Vietnamese producers and American buyers. For instance, while the contractual price with foreign buyers for the jacket category was approximately 4 USD per piece, in the black market, illegal quota price for jackets fluctuated between 1–1.5 USD per piece (VNExpress, 2004). *VNExpress* also reported that in order to maintain its competitiveness a (GP2) firm might make up for the cost by squeezing worker salaries instead of transferring the cost of its rent seeking to American customers via increased prices (it could not do the latter simply because there are other sellers from other countries) (VNExpress, 2004).

If quotas had been properly managed, rents would have been realised in the form of large profits for successful exporting firms that were engaged in investment and upgrading, which could then have been reinvested to further increase their capacity. That new capacity would have allowed such firms to gain even more quotas from the official system relative to less successful firms. Furthermore, garments exporters would have the incentive to pay a little more for locally produced textiles to boost their local content. This could have created incentives for expansion and pressures for price and quality

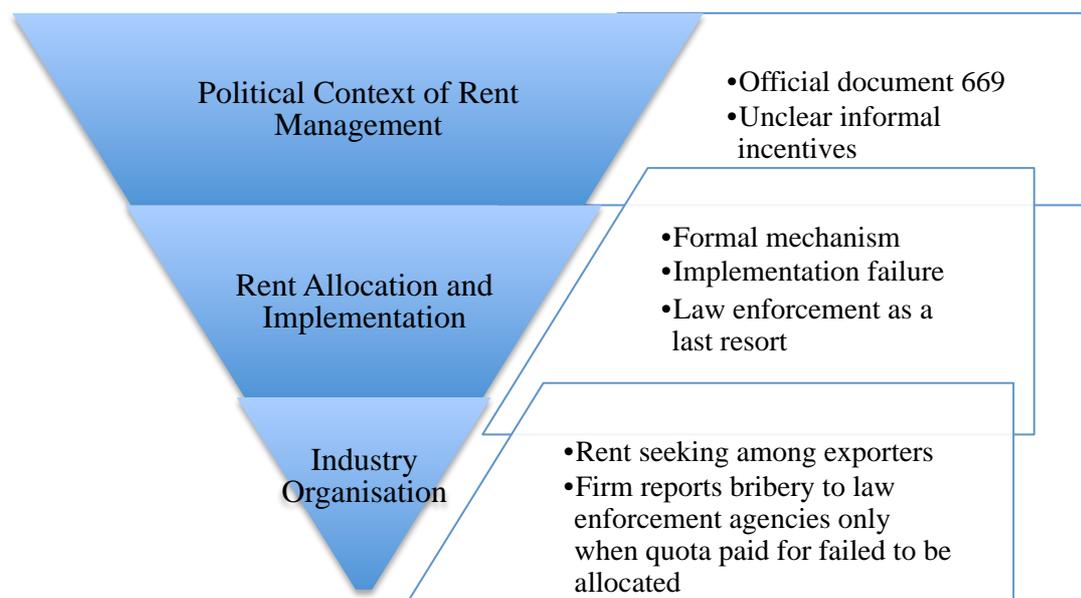
improvement in the textile sector, since the quota system was not going to be a permanent one. This is a probable scenario particularly since a large number of SOEs engaged in both textile and garments production at the time.

#### 5.4.5. DRMA Step 3 – The Quota Period: a Rent Management Analysis

The rent management processes during the quota period can be analytically assessed in terms of the political, institutional, and industry factors that are relevant.

Figure 5.8 outlines the analysis.

**Figure 5.8: Rent Management Mechanism in the Quota Period**



##### 5.4.5.1. RMM Level 1 – Political context determining rules of quota distribution

Officially, the Vietnamese government was concerned with the potential corruption and rent-seeking associated with quota allocation. When the government assigned the quota allocation responsibility to the Ministry of Commerce, Deputy Prime Minister Khoan Vu issued official document #669/CP-KTTH (Document 669) on 21 May 2003, which stated, “There must be a mechanism to ensure that there will not be any selling, buying, or transferring of quotas. Under no circumstances should the managing group grant quotas to enterprises that do not have a production line. Investigate thoroughly any commercial fraudulence. Those who violate the law should not receive any further quotas”<sup>74</sup> (Hai, 2004). This document makes it clear that the government was aware of the potential for corruption and that the managing group was instructed to closely monitor the allocation process. More importantly, it shows the top political leaders were at least formally committed to make learning rents work for the development of the industry.

I queried my interviewees on what they thought the informal political intentions were behind the system set up to allocate the rent, but this yielded little information, as I suspect those who knew the answer were involved in some of these activities themselves. Overall, my data is inconclusive in terms of determining what ministers, deputy prime ministers, the prime minister, or any officials beyond former Deputy Trade Minister Dau Van Mai gained from the misallocation of the quotas. For example, it is unclear whether Tuyen Dinh Truong, the former Minister of Commerce, privately benefited from the quota allocation process. He put Dau in charge of the quota allocation process, and Dau later officially allowed transfers of quotas that effectively created the black market for quota exchange and transfer. It should be noted that Dau was the highest official prosecuted. Realistically, it was impossible that Tuyen knew nothing about the

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<sup>74</sup> This author translated the text from the Vietnamese document in verbatim.

misallocation of quotas. It was his job to supervise Dau and the activities of the ministry. Furthermore, the T&G industry was one of the most important export industries at the time as it produced significant business opportunities and profits.

One of my interviewees who was actively involved in quota trading said that he is sure (although he didn't offer any evidence) that the top officials must have benefited from this scheme, saying, "Perhaps not directly, but the family and relatives of those officials may be in the trade and they could informally give Dau orders to allocate quotas to their close connections." The persistent failure to monitor the allocation process suggests that the lack of monitoring and supervision was intentional or informally agreed upon by the state – that is, until the scandal became public.

#### **5.4.5.2. RMM Level 2 – Policy and institutional structure of quota allocation**

The second level of DRMA analysis assesses the policy and institutional structure of the quota allocation and its implementation. The criteria and procedure under which quotas were to be formally allocated were discussed in section 5.4.1. In this section, we assess two important factors that made up the second set of factors affecting rent-management: the institutional framework for quota applications and distribution, which failed at the implementation phase; and the law enforcement that put an end to the corruption scandal of illegal quota buying and trading.

Regarding the first factor, despite the fact that formally the criteria clearly set out to promote industrialisation across the industry, quota allocation was neither monitored nor supervised by higher levels of the government—the Minister and the Prime Minister—nor by an independent agency. During this period, there was not an

independent agency that was in charge of supervising the managing group, and VITAS neither monitored nor complained about illegal quota trading and bribery for quota allocation. In addition, garment manufacturers did not have the benefit of a procedural appeal on quota decisions, if the managing group wrongly gave quotas to firms.

In responding to questions raised by the Party Congress about the corruption scandal, then–Minister of Commerce Tuyen, whose position was above Dau and the managing group, said that he only knew of the scandal after it broke out in the media and an investigation was taking place (Phuoc-Vinh, 2004). He said that before then he had only heard rumours about corrupt activities, but without evidence he was not in the position to discipline anyone. This testimony was contradictory to Tuyen’s role as a Minister because formally the Minister supervises his deputy and the activities within the ministry. Clearly, there was little supervision of the quota allocation, despite Document 669 and despite the institutional structure of ministerial control being clearly set up to implement and monitor policies.

As for the second factor, the failures in the rent management mechanism in this case were only addressed and corrected through the law enforcement process that brought the corruption scandal to court based on A Chau’s report of the illegal trading and bribery. In all, Dau, his son, Thang, and 14 others were found guilty of committing bribery and abusing power and were sent to prison. Implicitly, the enforcement of the rule of law in this case only *punished* the corruption, but did not help enforcing the quotas in the developmental manner – it did not create incentives and pressures for effective management of the quotas. Nonetheless, it was important that the legal process was able to stop some of the damaging rent-seeking. However, from the perspective of industrial upgrading and creating incentives and pressures for learning, there was no developmental rent management during this period.

### **5.4.5.3. RMM Level 3 – Industry organisation during the quota period**

The third factor affected the operation of a rent management system is the organisation of the industry. In this case, the industry organization did not generate any particular processes that helped productive rent management. In this particular industry, the political and organizational weakness of trade associations explained for firms' lack of power over the government. As asserted in the previous section, VITAS was largely created as a government watchdog and a de facto think-tank for the ministry, rather than the actual representative for the interest of T&G manufactures. Consequently, the Vietnamese T&G firms had no control over the allocation of quotas. In essence, although the quota rents were not created by the Vietnamese state, their allocation was entirely state-led and Vietnamese firms could not prevent the government from extracting much of the rents from the industry in the form of bribes.

There was only one thing that firms could do, and that was to report the corruption to law enforcement agencies and to bring the case to the public's attention. This is what A Chau did. However, A Chau only did so as a last resort, when it had paid for a quota that it did not receive.<sup>75</sup> Clearly, the enforcement of rules that would make the industry as a whole productive over time was not something individual firms were willing to fight for given that the benefit was a public good. This is evidenced by the fact that competitive firms were willing to simply pay for the quota at the going rates, because there was still some profit left for them as long as they got the quota that they paid for. In this context, the use of the law enforcement (as A Chau did) could not be accounted as a rent management factor that could help sustaining value-enhancing rents.

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<sup>75</sup> The owner of Dong A was also prosecuted for bribery.

#### **5.4.6. DRMA Step 4 – Rent Outcomes from the Quota Period**

The rents created and allocated during the quota period failed to bring about incentives or pressures for enhanced investment, and capability building. The quota allocation mechanism resulted instead in a diversion of resources away from capable firms. Schaumburg-Muller (2009) reports that after the quota period, little industrial upgrading took place. There was an impressive increase in exports, but it was largely due to Vietnamese enterprises' flexibility in dealing with multiple international buyers for different lines of production. This flexibility could be explained by the fact that Vietnamese enterprises had the capacity to produce at a lower cost than most of their competitors in low value garments production.

During the quota period, productive firms that could not obtain quotas changed their business strategy. For example, Knutsen and Nguyen (2004) point out that firms which could not compete for quotas in the U.S. market obtained contracts with buyers in other markets. Similarly, Thomsen (2007) also points out that many businesses that did not have a connection with the state tried to access the European and Japanese markets instead of the U.S. market. As a consequence, those firms struggled to stay in business, especially in the off-season, so again, expanding capability and upgrading was impossible (Thomsen, 2007). Because most of the quotas were given to firms (state owned or not) that are connected to the state, it explains the greater political clout and connections of these firms. Consequently, quota rent became a redistributive rent that was shared between connected firms and the government at the expense of the productive but excluded firms.

#### **5.4.7. Observations of the Quota Period**

What is truly unfortunate about the failed allocation mechanism for quotas during the early 2000s is that the allocation of quota rents could have been a valuable instrument for supporting technological upgrading and learning in Vietnamese enterprises, especially in the textile sector. If the quotas had been allocated appropriately, that is, based on proof of capacity (especially in increasing local content and industrial upgrading), the textile and garment industry would have had a chance to deepen its technology and move up the value chain. Even though the redistributive period only lasted for two years (2003 and 2004), it set the wrong foundation for the second half of the quota period. This is because two of the criteria were that allocations would be based on a producer's performance in the previous year and connections with large U.S. buyers. Therefore, firms that benefited in the early quota period ended up getting more quotas in the following two years, whether through bribery or first mover advantages. The main point is that since a large part of the potential rent was partially redistributed through bribes and quota trading in the first half of the quota period, productive textile and garment producers did not have enough capital or the time to improve their competitive advantage before the Vietnamese economy opened up in 2007 with its entry into the WTO.

There was thus only one component of the political, institutional, and organizational factors that had any corrective effect on the rent allocation and that was the law enforcement process that brought a few corrupt individuals to court. This mechanism, though, was not developmental in the sense that while it addressed some of the wasteful features of the rent allocation process, it did not and could not recast the rent allocation process to achieve the potential developmental outcomes. Consequently, there

was no developmental rent management factor that could ensure that the quota rents had growth-enhancing effects.

The quota period, which ended with a major corruption scandal, increased the underlying political distrust among the Vietnamese and saw the imprisonment of high-ranking government officials. The case illustrates the complex and unregulated rent-seeking activities that were occurring at both the state and business levels. It highlights the (possibly deliberate) inability of the state to monitor these rents and questions whether, from the point of view of the state, there was ever a real incentive to boost industrial upgrading in the T&G industry. This case partly explains the industry's continued dependence on low-cost labour and foreign inputs. Vietnam's textile producers failed to expand production capability and its garment producers failed to move rapidly up the value chain. Table 5.10 provides a summary of analysis under DRMA framework.

**Table 5.10: DRMA Summary of the Quota Period**

<b>Players</b>	<b>Type of rent</b>	<b>Incentives created by the rent</b>	<b>Factors affecting the rent management mechanism</b>	<b>Outcomes</b>
All enterprises	- Quota rents on exports to the U.S.	- Incentives and potentially pressures for expanding production, technology acquisition and linkages  - Rents could also be captured by connected firms that were willing to bribe	<u>First level:</u> Unclear political will to allocate rents for developmental outcomes  <u>Second level:</u> (1) Formal quota allocation mechanism failed, and (2) Rule of law enforced against bribery  <u>Third level:</u> (1) Rent seeking competition among exporters (2) Firm reports bribery to law enforcement agencies only when quota paid for fails to be allocated	- Missed opportunities of using quota rents to (1) enhance investments and capacity, (2) upgrade technology, and (3) enhance domestic linkages between garments and textiles

### 5.5. Case Study 2: The “China Factor”

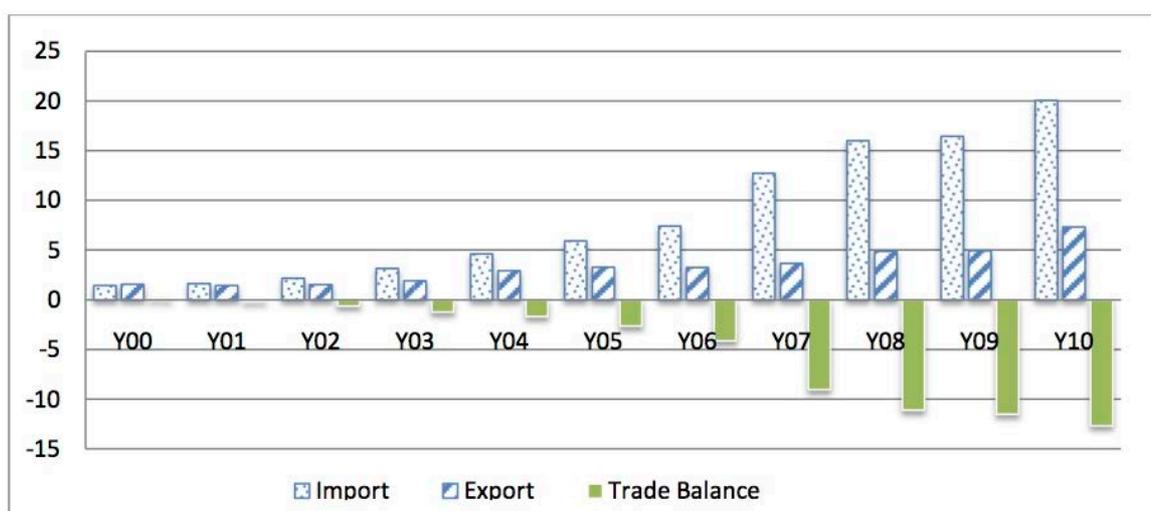
China and Vietnam have long had a complex trading relationship. The Sino–Vietnamese bilateral relation started to improve in 1991 with the normalisation of their political relation. Since that time, the two governments have signed various bilateral trade agreements and established trade zone areas to promote a cross-border trading relationship. In the last decade, the value of exports from China to Vietnam increased 15 times, while the value of Vietnamese exports to China increased only 5 times (Cao & Wang, 2011). In 2011, trade volume between the two countries reached VND 743.58 trillion (USD 36 billion), of which Vietnam’s exports account for VND 227.2 trillion (USD 11 billion) while the country imported VND 156.38 trillion (USD 25 billion) of Chinese goods (Bland, 2012) and thus incurred a VND 289.85 trillion (USD 14 billion) trade deficit.<sup>76</sup> In reality, China has been Vietnam’s biggest trading partner and creditor, accounting for 90 per cent of Vietnam’s total trade deficit (Cao & Wang, 2011).

Figure 5.9 illustrates the increase in the volume of trade and the widening deficit that Vietnam has been incurring with China since 2002, and especially after Vietnam’s accession to the WTO, which reduced Chinese import tariffs to Vietnam and vice versa.

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<sup>76</sup> Bland (2012) also adds: “These figures do not take into account the large quantities of smuggled goods, for which no reliable estimates exist.”

**Figure 5.9: Vietnam Trade with China (in USD billion)**



*Source: Cao & Wang (2011, p. 27)*

Table 5.11 shows the large volume of exports from China to Vietnam, especially in the T&G industry (rows 5, 6, and 7), as well as its rapid growth rate in imports. When rows 5, 6 and 7 are added together, it shows that Chinese imports into Vietnam for the T&G industry make up the top 3 imports, only after electronic equipment and machinery. The growth rate in 2010 was 28.6 per cent for cotton, 27.4 per cent for textiles, and 26.3 per cent for garments. This import growth rate ranks them 3, 4, and 5, respectively, of the top 10 categories.

**Table 5.11: Top Ten Export Commodities from China to Vietnam (in USD billion)**

No.	HS Code	Product Label	2010 Value	Avg. growth rate Y05-Y10	Y10 Share
	TOTAL	All products	23.11	24.0	100.0
1	85	Electrical & electronic equipment	3.60	36.2	15.6
2	84	Machinery	3.41	25.4	14.7
3	27	Mineral fuels	1.85	14.1	8.0
4	72	Iron & steel	1.63	0.9	7.1
5	52	Cotton	1.17	28.6	5.1
6	61	Garment	0.79	26.3	3.4
7	60	Knitted or crocheted fabric	0.74	27.4	3.2
8	87	Vehicles	0.63	14.9	2.7
9	73	Iron & steel products	0.59	26.2	2.6
10	07	Vegetables	0.54	33.4	2.4
		<i>Others</i>	8.17	21.9	35.3

*Source:* Cao and Wang (2011, p. 32). Average growth rate and share are in percentage.

Traditionally, there are three trading options through which Chinese textiles can enter Vietnam.<sup>77</sup> The first option is trading through the ASEAN block. The official import tariff for Chinese textiles, as it is for most other ASEAN country, is 15–18 per cent, depending on the category. The second option is for textiles to be imported directly from China. Officially, imports across the border are subject to only a 5 per cent tariff rate. The third option is smuggling. Ben Bland (2012) reports from the Mong Cai border (the busiest trading point between the two countries): “As many as 1,500 vehicles traffic goods every day through the busiest unofficial crossings in Mong Cai, each paying border officials \$10-\$20 in bribes for right of passage”. Official statistics show that direct exports via the borders (option 2) account for one-third of the trade value between

<sup>77</sup> Materials imported from abroad that are used for garment exports are tax-free in Vietnam. For example, if suppliers provide Vietnamese garment makers any materials to be used to manufacture garments for export purposes, these materials have no tariff.

Vietnam and China (Thanh Nien News, 2011), although this figure does not account for illegal trading and smuggling (option 3). That is, if option 3 were included in the calculation, option 2 would be even less than one third.

As Vietnamese garment exporters depend heavily on Chinese textiles, there has been considerable concern that Chinese imports are competing with the Vietnamese textile sector and inhibiting its development. The problem is aggravated with the large volume of cross-border smuggling because it further lowers prices for Chinese textiles and materials in the Vietnamese market. According to Hill (1998), “smuggling of Chinese textile products into Vietnam is reportedly widespread and has been the subject of several unsuccessful campaigns to eradicate it.”

This observation was confirmed during my fieldwork in 2011. An interviewee from AGTEK, who also owns a medium-sized garment factory, confirmed that the majority of textiles used for manufacturing in Vietnam are provided by buyers who often source their materials from China, South Korea, or Taiwan. Even for the Vietnamese firms that source their own supplies locally, they often use materials and accessories from China, and a large portion of them was smuggled materials across the border. My interviewee told me, “We know that there is a large volume of smuggled materials but there is really no way to know the exact amount and cost. They are very cheap, and Chinese textiles are of better quality and variety than Vietnam’s.”

#### **5.5.1. DRMA Step 1 and 2 – Rents and Incentives Based on the Unsecured Sino-Vietnamese Border**

The loosely controlled border between China and Vietnam permits cheap Chinese textiles and materials to enter the Vietnamese market, which can prematurely destroy

rents of Vietnamese producers or even drive them out of business. This rent destruction is due to the political and institutional failures of the Vietnamese government to manage its borders and halt the penetration of illegal Chinese imports into the Vietnamese market.

Smuggled Chinese textiles and materials affect prices in the Vietnamese market and compete with local producers. From the industry perspective, this failure in controlling the border appears to benefit two groups—the garment producers in Vietnam and the Chinese exporters—as they both benefit from the trade. If Vietnamese textile producers could rapidly enhance their competitiveness, the effect may be argued to be good for the Vietnamese textile sector, as we would expect to see a rapid increase in its value addition and competitiveness. If, on the other hand, building competitiveness takes time with conditional rents, then a rapid destruction of rents through a failure to control the border can have very negative effects for the textile sector while temporarily helping the garments sector.

For garment producers in Vietnam, cheap Chinese textiles arguably permit foreign and domestic manufacturers in Vietnam to earn higher profits. However, this short-term benefit comes at the cost of inhibiting the development of the Vietnamese textile sector. The results are a faltering domestic textile sector and a garment sector that is dependent on foreign supplies.

As for the second group of beneficiaries, Chinese textile exporters have clearly had an incentive and interest in expanding sales to Vietnam's domestic market. These exporters sought to increase their profits by avoiding the tariffs on textile imports, and thus found a way to penetrate the Vietnamese market through their porous border. Chinese exporters continue to benefit from apparel production taking place in Vietnam, despite losing foreign buyers in their country, as part of buyers' strategy to diversity their supplier network and as a result of rising wages in the Chinese garments industry. The

China factor, therefore, has been a barrier to the development of Vietnam's textile sector, as part of the benefits of Vietnamese garment manufacturing are going to Chinese textile exporters at the cost of the Vietnamese textile sector.

### **5.5.2. DRMA Step 3 – Rent Management Analysis of the China Factor**

There are a number of important issues concerning the China factor affecting the Vietnamese garments and textile industry. At the highest level of analysis, the China factor is not simply an economic issue, but also a political matter as the Sino–Vietnamese relationship is politically sensitive. The Vietnamese government has traditionally hesitated to confront its northern neighbour on issues like smuggling. An expert in the T&G industry explained to me that because China is Vietnamese biggest creditor, retaliation from the Chinese government either through trade or administrative measures could substantially affect the Vietnamese economy.

At the second level of rent management analysis, monitoring illegal trading along the border requires the Vietnamese government to overcome the resistance of its Local Customs Departments, over which the government appears to maintain weak—intentional or not— monitoring and supervision (interview with AGTEK representative, 2011).<sup>78</sup> In addition there are organised criminal groups that are active in major trading posts, and which are said to possibly collude with local governments (Bland, 2012). Furthermore, the Vietnamese legal and administrative frameworks are inadequate to counter the interest of smugglers and their contacts in local authorities. I asked the same interviewee why it is the case, and he explained that “historically it has always been like this” and the Vietnamese government's attempts to crack down on smuggling had failed

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<sup>78</sup> Local Customs Departments are under direct control of the General Department of Vietnam Customs. More information regarding the General Department of Vietnam Customs, see <http://www.customs.gov.vn/english/lists/vietnamcustoms/Default.aspx>.

on numerous occasions. Perhaps, this institutional deficiency reflects the weak political will of the state to adequately address the border problem. Thus, there are significant institutional failures due to the central government's weak monitoring capability over the Local Customs Departments and an ineffective formal institutional framework to monitor the border.

Finally, there is also a rent management problem at the industry level. Since the textile sector is not yet sufficiently developed to support the demand of the garments industry, without Chinese textiles imports there would be bottlenecks in the supply of materials for garment production. Garments producers have therefore no interest in supporting border protection. This problem is becoming moot because, beginning in 2015, nearly all goods traded between China and Vietnam will eventually become tax-free (see section 5.2.1). Therefore, borders and tariffs will soon become irrelevant as instruments for supporting capability development in the domestic economy.

### **5.5.3. DRMA Step 4 – Rent Outcomes Due to the China Factor**

As analysed in section 5.2.4 the development of the textile sector is critical for the development of the T&G industry because this would be a feasible strategy for improving value added in the integrated industry. A former vice president of Thanh Cong Textile Garment Company told me that despite Thanh Cong being known as a successful textile producer, the company actually incurred losses in its textile production. As a result, the company used garment production to cover its financial losses from textile production. He explained that the company had to continue its textile production to retain jobs for its workers and to keep the reputation of the company among international buyers that Thanh Cong could source its own materials. Our analysis

provides that the China factor has impeded the development of the industry by intensifying competition within the Vietnamese market for domestic textile producers. The limited rents they earned as a result of the protected domestic market were competed away. Here, the negative rent outcomes include many local textile producers giving up on upgrading their competitiveness, and either closing down their business or refocusing on garment production (interview, 2013).

#### **5.5.4. The “China Factor” Concluding Thoughts**

The China factor is an example of an external factor that impacts the organisation of the industry, especially the domestic market, and the industrialisation of the sector. The unsecured border between China and Vietnam destroyed the rents of import-competing industries like textiles almost overnight. The outcome was value-reducing and growth-reducing. The rent destruction benefited both Chinese exporters and Vietnamese garment producers. However, these rents have had a direct negative impact on the Vietnamese textile sector and removed firms’ incentives and financial capabilities for upgrading. In this case, the failure to protect tariff-based rents for domestic textile producers was a failure of the rent management mechanism due to: (1) the weak political will to confront Chinese smugglers, (2) insufficient institutional capabilities to monitor the border, (3) the central government’s weak monitoring capability over the Local Customs Departments, (4) the inability of textile producers to meet market demands for inputs, and (6) the garment producers’ continuous dependency on Chinese imports for its production and exports. Table 5.12 summarises the China factor and the rent management mechanism that failed to protect the Vietnamese T&G industry.

**Table 5.12: DRMA Summary: The Case of the China Factor**

Players	Type of rents	Incentives created by the rent	Factors affecting the rent management mechanism	Outcomes
All enterprises in the garments and textiles sectors	- Destruction of tariff-based rents of textile producers	- Vietnamese garment producers: Support the destruction of these rents as they could buy their inputs at lower cost from China  - Chinese textile producers supported illegal trading through the border.	<u>First level:</u> Inadequate political will to address border problems  <u>Second level:</u> (1) the formal institutional framework for enforcing border controls failed, and (2) the government's monitoring capacity over the Local Customs Departments was weak  <u>Third level:</u> (1) Illegal Chinese imports were demanded and therefore encouraged by the garments industry (2) weak textile sector cannot provide all inputs for domestic garment industry	- Missed opportunity to (1) focus on upgrading the textile sector, and (2) further integrate garments and textile sectors to enhance value added in the joint sector

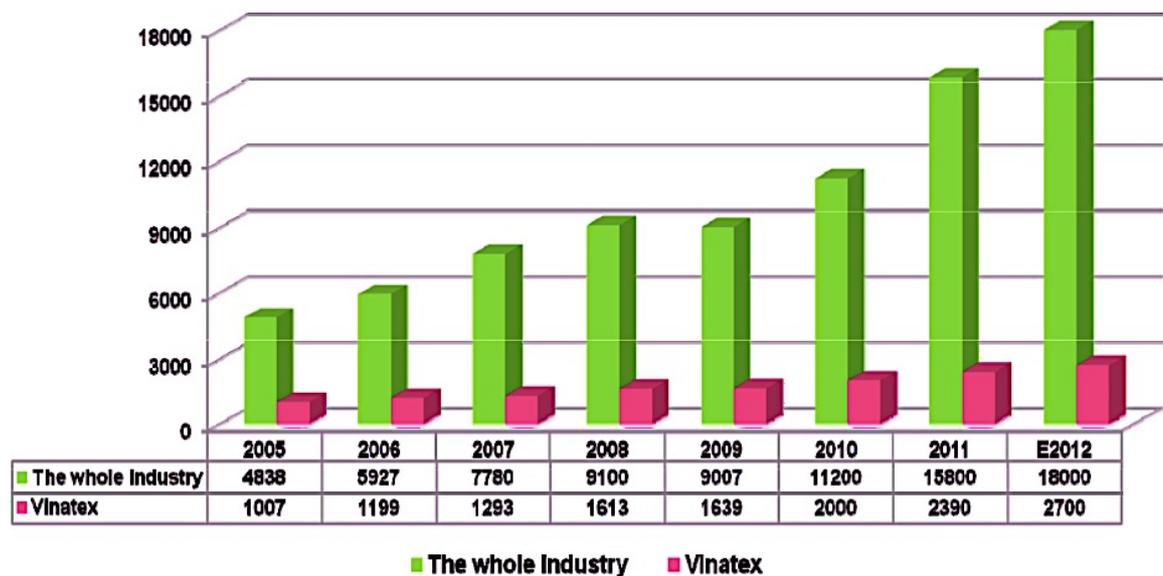
### 5.6. Case Study 3: The State Sector and Vinatex

The single largest corporation within VITAS is Vinatex, a general corporation that represents and manages state capital among its subsidiaries. Vinatex was created by the prime minister in 1995 with nearly 200 subsidiaries (Tran, 2012a). Due to a major restructuring in 2006, Vinatex became a privately owned corporation, though the government still owns 20–30 per cent. The balance is made of domestic and Korean and Taiwanese foreign investment funds (IBM Belgium, et al., 2009). In principle, under Vinatex, there are four types of state ownership in the T&G industry: 100 per cent state-owned companies, joint stock, joint venture, and one-member companies with limited liabilities in which the state maintains 100 per cent ownership (Tran, 2012a). In 2013,

the Vinatex website cites that the corporation comprises 51 joint-stock companies, 40 joint venture companies, 5 training colleges, 3 research institutes, 2 magazines, and a research centre. The 91 companies under Vinatex cover all activities in the T&G industry, including spinning, knitting, weaving, dyeing, and finishing. The state maintained control over some of the largest T&G factories, such as Phong Phu (at 52 per cent), and Viet Tien (at 60 per cent), as well as smaller factories (Tran, 2012a).

Figure 5.10 illustrates the parallel export growth between the T&G industry and Vinatex. It outlines Vinatex’s share of exports over both textile and garment sectors (approximately 15.1 per cent in 2011). In the domestic market, Vinatex has a large presence given its active campaign to use the local market to build brand image and marketing.

**Figure 5.10: T&G Exports between 2005 and 2011, Industry versus Vinatex**



Source: Le (2012)

### 5.6.1. The Restructuring of Vinatex in 2006 and 2013

Prior to 2006, Vinatex's authority over its subsidiaries was limited, especially when it came to the distribution of profits. According to An Quoc Le, who was the chairman of Vinatex at that time, "Before [2006] our state companies acted independently, if they made a profit, they kept it" (see Martin, 2008, p. 8). This is because as SOEs, these enterprises are managed by a number of different state bodies – either by the central government via the managing ministries or the provincial state bodies. However, a major change in Vinatex's role was implemented in 2006. With the help of PricewaterhouseCoopers, the Vietnamese government restructured Vinatex and transformed it into a profit-oriented holding company. Following the instruction of the Ministry of Industry, Vinatex began its equitisation in 2007 with the goal of completing its transformation into a joint stock holding company by the end of 2008. As planned, the equitisation would not reduce the value of the government's capital holding in Vinatex, but instead would issue new shares for sale to private investors to attract new capital. As a result, Vinatex would collect profits and closely manage its subsidiaries, much more so than in the pre-2006 period. In the words of An, "[N]ow we act as a real owner" (see Martin, 2008, p. 9).

As a profit-driven corporation, the restructured Vinatex was to focus its efforts in five major areas. First, it would invest, produce, supply, distribute and import and export textiles and garments. Second, it would set up joint ventures with domestic and foreign investors. Third, it would develop and expand both domestic and overseas markets, as well as assign member companies to penetrate into potential markets. Fourth, it would conduct research and improve technological applications in Vietnam's garment and textile industries. Fifth, it would provide technical training for the workers and management in Vietnam's T&G industry (Martin, 2008). The transformation of Vinatex into a holding company with state ownership in a number of Vietnam's largest clothing

companies in 2006 suggests that the government intended for Vinatex be a conglomerate to lead the industry and to implement its social programs.

In 2013, Vinatex's structure of ownership shifted once again as Vinatex was at the centre of the government's public sector reform. Prime Minister Dung Tan Nguyen signed a restructuring plan for Vinatex to take place between 2013 and 2015. The plan sets out that the mother corporation will retain 100 per cent stake in four of its subsidiaries (instead of seven, as in 2006), will reduce its stake to between 50–65 per cent in six companies, and to less than 50 per cent in 20 others (KTD, 2013).<sup>79</sup> In addition, Vinatex will be required to complete its divestment in 37 noncore subsidiaries (KTD, 2013). This restructuring plan implies that the state is withdrawing its capital from Vinatex, and forcing the corporation to concentrate on its core businesses. This is a move that is long overdue, according to the former president of the Vietnam Chamber of Commerce and Industry (interview, 2011).

### **5.6.2. DRMA Step 1 and 2 – Rents and the Incentives of the Rents Given to Vinatex and the State Sector**

Through Vinatex and the MoIT, the Vietnamese government had provided the public sector with a number of rents that could potentially support investment and learning. First, during the 1990s and early 2000s, the government's implicit guarantee of SOEs' debt, as well as their access to credit via state banks, enabled SOEs with reasonable business plans to access easier, and possibly cheaper, credit than private enterprises (Khan, 2009a; Knutsen & Nguyen, 2004; Thomsen, 2007). Second, the SOEs

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<sup>79</sup> It is still unknown how many companies Vinatex will own after the restructuring, but the state is planning to withdraw its capital from Vinatex by selling its shares to private investors.

that already possessed critical assets, such as land and equipment, had significant advantage over new entrants from the private sector or foreign firms. Third, SOEs organised under Vinatex (1) received financial cross-subsidisation if Vinatex management felt that particular plants required short-term support to raise their competitiveness, (2) received management expertise from more successful plants under the Vinatex umbrella if this was required, and (3) shared learning experiences, as well as trade information to identify buyers in foreign markets (interview, 2011). All these channels provided the subsidiaries with implicit rents to develop their industrial capabilities.

Vinatex also used its market position to pass on business opportunities to its subsidiaries. There is literature that documents Vinatex's role in facilitating business opportunities between SOEs and foreign buyers. For example, data collected from Thomsen (2007) during his 2000 and 2001 fieldwork found that state institutions such as VITAS, Vinatex, and the MoIT commonly mediated contacts between foreign buyers and Vietnamese suppliers, and those that obtained orders through the state system were more likely to be SOEs, or, if private companies, to be state-connected. Buyers found it easier to go through the official system, in which they were also provided assistance in finding suppliers and in administrative procedures (Thomsen, 2007).

The second step of DRMA assesses the *incentives* created by the rents that Vinatex and SOEs received. Here, my fieldwork data points to both positive and negative incentives. A senior economist and former government official, who in the early 2000s oversaw the garment sector, explained to me that Vinatex had the incentive to not only maintain its rents and its rent-seeking power, but to also seek more rents from the state. One effective way to gain more rents is for the corporation to show its ability to fulfil its social and economic responsibilities, namely retain and create new employment

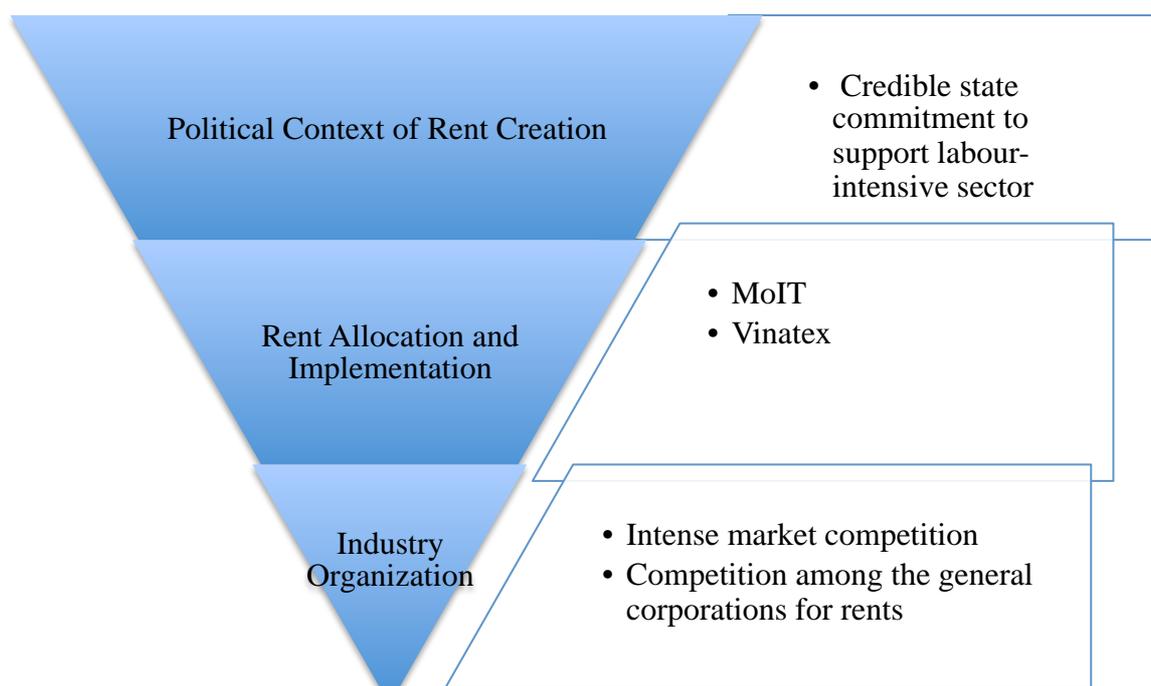
(especially in the poor regions of the country) and to generate revenue for the state. Given the new structure, Vinatex could effectively seek rents and internalise them through implementation of various social programs, such as expansion of cotton farms and production in the mountainous areas. The more profitable the subsidiaries, the more leverage Vinatex would have with the state. Therefore, Vinatex had an incentive to boost the capabilities of its subsidiaries.

Despite this possible positive incentive, there is also practical negative incentive induced by the rents. Rents channelled to the state sector generated unfair competition among firms. By having access to land, credit and government support, by controlling some of the largest T&G producers in the industry, and by occupying a large share of production in the upstream segment of the value chain (cotton and textiles), Vinatex could unfairly challenge the survival of smaller firms and capture their market shares. As this would also be a potentially profitable strategy, a negative effect of the rents would be to encourage the state sector to engage in rent seeking to retain its market power. Although the restructuring of Vinatex permits the Vietnamese government to *indirectly* control the T&G industry, market power via rents could breed inefficiency within the SOEs by crowding out the private sector, especially SMEs. During my fieldwork, interviewees frequently complained that a number of SOEs under this corporation lacked incentives to take advantage of business opportunities in the international and domestic markets to move up the value chain and to raise the value-added in its outputs. My interviewees who are experts in the industry agree that SOEs that are in joint ventures with foreign investors were doing much better than those controlled by Vinatex.

### **5.6.3. DRMA Step 3 – Rent Management Mechanism in the State Sector and Vinatex**

What were the rent management factors that motivated or deterred Vinatex to upgrade, and that explain the mixed outcomes in SOE upgrading? Figure 5.11 outlines the three levels of rent management mechanism using the DRMA framework. At the first level, the political context included the Communist Party's interest in utilizing the state sector to maintain and create jobs for low-skilled workers, especially those in the mountainous and rural regions of the country, and to generate revenues for the state. At the second level, the institutional mechanism for rent management involved the managing role of Vinatex and the MoIT to distribute and manage rents between Vinatex and its subsidiaries. The third, the industry organisation level, has a number of relevant aspects. First, market competition in the international and domestic markets created pressure on Vinatex to ensure that plants under its management put in the effort to maintain production capability and competitiveness. Second, competition among the general corporations for rents—especially in terms of access to land and credit created further pressures on Vinatex to demonstrate its performance by maintaining profitability. Each of these layers of rent management is discussed in greater detail in the following sections.

**Figure 5.11: Rent Management Mechanism in the T&G Public Sector**



### **5.6.3.1. RMM Level 1 – Political context of rent creation and management for the state sector**

The Vietnamese Communist Party's support for the T&G industry was largely based on the political imperative of retaining and creating jobs, ensuring social stability, and raising state revenues. Since Doi Moi, the textile sector served as an engine for job creation (approximately 3 million). This ensured that the sector was important for the party for maintaining social and political stability. It is in this context that Vinatex emerged as an instrument of policy. In 2011, Vinatex had a total labour force of more than 130,000 employees, with roughly 35,000 employees working in joint-ventures with foreign and local partners (Bao Moi, 2011). A former manager at Vinatex explained to me that Vinatex carried both social and economic responsibilities. The social responsibility included that of job creation and retention, but also poverty reduction and

skills training. It also involved bailing out failing SOEs if needed, and using cross-subsidization across plants to maintain employment and growth. For instance, in July 2011, the media reported that Vinatex succeed in saving Dai Cat Tuong Garment Company, a failing garment company in Da Nang with 1,300 workers. This was in accordance with the government's instruction to support provinces that experienced economic difficulties and to ensure basic incomes for people (Phuoc-Vinh, 2004). A former manager of Vinatex explained to me that Vinatex could not perform better because the corporation's social responsibility (i.e. offering financial support for failing SOEs) often conflicted with its economic responsibility of maintaining competitiveness and generating profits in the marketplace.

#### **5.6.3.2. RMM Level 2 – Institutional and policy structure of rent creation for Vinatex and the SOEs**

The Vietnamese T&G industry displays a particularly complex institutional structure of rent creation and allocation through two institutions, Vinatex and MoIT. As an institutional instrument for the government, Vinatex performed two primary roles: it was an instrument for social and economic policy (see section 5.6.3.1), as well as an organization that managed state assets. Given these roles, Vinatex could muster substantial influence over the government's policy agenda. What makes this institutional rent management factor more complex is the fact that, as a market player within the industry, Vinatex also sought rents to maintain high profits as well as market and political power. Indeed, one could argue that Vinatex was one of the most influential rent-seekers in the industry, taking into account the fact that it was one of the largest investors for the state. One example of Vinatex's political power is the fact that among

the 12 Vietnamese conglomerates—the general corporations<sup>80</sup>— under the supervision of the prime minister, Vinatex is said to be the most powerful, followed by Petro Vietnam (interview with VITAS representative, 2011).

What is the institutional process through which rents were created and allocated to Vinatex? As designed by the government, the chairman and vice chairman of Vinatex is also the chairman and vice chairman of VITAS. VITAS is perceived as the government think-tank and policy advisor for MoIT as it frequently acts as the medium that connect T&G firms with the government. In other words, VITAS especially represents the voice and interest of Vinatex in its consultation with the government for development policy and strategy. The MoIT regularly holds meetings with VITAS and Vinatex to obtain industry's updates and consultations. Based on Vinatex or VITAS policy recommendations, MoIT would adjust policy accordingly with the primary aim of implementing social programs, making profits and maintaining state control over the industry using Vinatex and VITAS as instruments.

As a state-owned profit-oriented holding company, Vinatex has actively lobbied the government for rents. For instance, in early 2009, industry representatives of VITAS and Vinatex lobbied the government for financial support in response to the decrease in the international market demand for T&G exports. The former chairman of both Vinatex and VITAS An Quoc Le was then quoted in the local media, suggesting the adoption of three main emergency measures. The first measure was that the government should fund VND 5 trillion (USD 295 million) to support bank credit for the T&G industry and to reduce interest rates, which were still considered to be too high. The second measure was that VITAS asked the government to allocate 1 per cent of total export earnings to assist those companies and their workers facing falling orders and considering lay-offs. Finally,

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<sup>80</sup> Some of these general corporations have now transformed to become state economic groups such as Viettel.

the third measure was that VITAS also asked the government to spend VND 50 billion (USD 2.9 million) in support of international sales and marketing promotions (Business Monitor International, 2009).

In response to these requests, the government introduced new tax measures in April 2009 that were intended to stimulate domestic consumption with some measures to support the textile and garment sectors. Under the Ministry of Finance, the value-added tax (VAT) rate was reduced by half for textiles and garments enterprises, as well as on a number of other selected products. VAT payment deadlines were also extended on certain types of imports. In addition, garment companies were exempted from some categories of income tax liabilities (Business Monitor International, 2009). In essence, preferential treatment by the government in the form of credit access, land, and expertise- and information-sharing helped address a number of business challenges and market failures by providing Vinatex and the SOEs with a range of rents.

The second institutional mechanism through which rents were created and allocated is the MoIT, which is responsible for monitoring Vinatex, the SOEs, and the industry as a whole. According to my interviewee, who is an industry expert, the managing role of MoIT has been largely described as passive and reactive. The quota period attests to this observation. It illustrates the MoIT's inability to monitor damaging rent-seeking activities by lower agencies and in the T&G market. Furthermore, according to a senior representative of VITAS, the ministry lacks expertise about the sector and thus is dependent on Vinatex's (and VITAS's) knowledge for strategy and policy recommendations. As a consequence of MoIT's muted role in regulating the industry and thereby controlling the deployment of rents, the only de facto regulators of rents and rent-seeking were Vinatex, and the market. The efficacy of these two de facto regulators is discussed in the next two sections.

### **5.6.3.3. RMM Level 3 – Effects of the industry organisation on rent management**

At the industry organisation level, there were two factors that created pressure on Vinatex and its subsidiaries to invest in learning and upgrading. The first was market competition in international and domestic markets that created pressure for Vinatex to maintain good relationships with international buyers. Globally, there has been severe competition among T&G manufacturers in a number of developing countries. Deputy General Director of Vinatex Truong Tien Le said on the news that, “the Vietnamese apparel and textile exporters are seeing difficulties because major importers are shifting their orders from Vietnam to Cambodia, Laos and Bangladesh in order to avoid [the] 10 per cent import duty since these countries are entitled to the Most Favoured Nation status with zero import duty” (Thu-Ha, 2013). Domestically, foreign investors that came into Vietnam since the late 1990s are capable and have good expertise, and they frequently compete with domestic producers in the Vietnamese market. As a consequence, competition in the global and domestic markets compelled Vinatex to put in effort to improve production capability and competitiveness.

The second factor is that, among the state conglomerates (the so called state business groups or general corporations), Vinatex actively competed for rents and political support, which ensured that it had to maintain competitive performance through investments and the development of capabilities. My interviewees stated that Vinatex is always under pressure to perform in order to continue receiving government rents for its various social and training programs. Recently, there has been public pressure to stop SOEs from investing outside their primary line of business, and Vinatex received severe

criticism for its investments in a number of service industries, including beverages, restaurants, and hotel industries. The 2013–2015 restructuring programme for Vinatex will create further pressure on the organization to focus on updating its capability to earn more profits.

#### **5.6.4. DRMA Step 4 – the Rent Outcomes**

Finally, we investigate whether Vinatex used its rents to acquire new technology, enhance learning, or increase upstream production of textiles. An interviewee who worked for Vinatex contended that there were a number of coordination and management failures at the level of the management board of Vinatex, largely due to inexperience and poor planning, which constrained Vinatex's ability to use rents productively once the general corporation obtained them. He also said that corruption and the use of power for personal profits were not unknown. To be fair, though, this behaviour is widespread among all SOEs in Vietnam.

However, my other interviewee, an economist and industry expert at the National Economics University in Vietnam who researches the role of Vinatex and SOEs in the industry, pointed out that, on the whole, Vinatex is relatively more productive and capable than many other (the provincial) SOEs in Vietnam. In addition, this interviewee maintains that comparing Vinatex to other SOEs or the general corporations in other industries, Vinatex seems to be more effective in managing its subsidiaries, as well as boosting their capabilities. This is evidenced by facts such as the growing number of garment superstores owned by Vinatex that promote local brands of Vinatex subsidiaries. Furthermore, the corporation has recently refocused on textile manufacturing. Subsequently, Dinh Vu Fibre Manufacturing Plant was built and is now in operation with

a production capability of 2,500 tons of polyester fibre in the first phase. Production will go up to 170,000 tons annually when the plant is in full capacity (Dinh Vu Industrial Zone, 2011; Ngo, 2011). This is expected to raise local content in Vinatex's garment production by 40 per cent in a few years' time (Intellasia, 2011a).

Another approach to assess Vinatex's ability to manage rents is to compare the SOEs efficiency with that of the private sector. In earlier research, Tran (1999) revealed evidence that some SOEs under Vinatex were efficient in acquiring new technologies for industrial upgrading. The author attributes the positive outcome to management's ability to take advantage of market opportunities and to devise business strategies that are suitable for learning.<sup>81</sup> Using a survey of 96 textile and garment enterprises, Nguyen and Le (2005) gathered empirical evidence that shows that "there is no operating profitability difference between state and private enterprise after adjusting the land rent and export quota rent difference" (p. 309). The study also found that total productivity of state enterprises is higher than that of private enterprises, but lower than that of foreign enterprises (Nguyen & Le, 2005).

Empirical evidence from Knutsen and Nguyen (2004) uncovers that, in regards to operating profit to capital, survey data showed that "state enterprises are more profitable than private Vietnamese enterprise [in terms of the ratio of operating profit to capital] ... both before and after adjustments are made for preferential treatment of state enterprise in term of export quota fees and land rent" (p. 131). Knutsen and Nguyen (2004) also pointed out that large and small foreign buyers tend to prefer collaboration with state enterprises. Buyers in their interview reported that Vietnamese state enterprises are fairly attractive business partners. "According to buyers, state enterprises also have more

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<sup>81</sup> It remains difficult to quantify Vinatex and its subsidiaries' level of effort in raising productivity in the presence of rents, although fieldwork interviewees admitted that the apparent success of some T&G producers was partly thanks to the rents these SOEs received.

advanced technology in place” and foreign buyers prefer to work with SOEs due to their close relationship with the government and their ability to reduce administrative hassles (Knutsen & Nguyen, 2004, p. 132).

To sum up, preferential treatment of the T&G sector by the government in the form of privileged access to land, credit and quotas, helped SOEs to invest and upgrade. Indeed Vinatex became more productive and profitable than private firms. Despite the MoIT’s weak rent management capability, Vinatex has been a positive factor in moving the SOEs toward upgrading. We explain this outcome in terms of competition within the market and among the general corporations creating effective pressure on Vinatex and its SOEs to put in the effort to make profits not only for its own sake but also to retain their rents and their rent-seeking power within the state.

#### **5.6.5. The State Sector Concluding Thoughts**

On the whole, the development experience in the public sector illustrates how some SOEs took advantage of rents to engage in technical upgrading and learning. As a consequence, they boosted competitiveness in the T&G industry. This is not to reject inefficiencies and negative incentives that the rents induced. Indeed, the DRMA suggests that a combination of various rent management factors produced mixed results in the development of the T&G industry.

First, there was clearly a political will to provide rents for the state sector in order to support the Party’s social and economic agendas, including job creation, reinforcement of social stability, and earning profits. Second, at the institutional level, despite the MoIT’s weak management, Vinatex, and to some extent VITAS, helped provide incentives and pressures for other state-owned subsidiaries to perform and to

upgrade. However, because the rents were largely channelled to the state sector, Vinatex and its subsidiaries have been unfairly competing with private and foreign enterprises and thus potentially undermining the private sector’s ability to achieve capability building. Third, competition within the market and among the general corporations at the firm level provided incentives for Vinatex and its SOEs to use rents to achieve higher industrial capability and thereby earning more profits. Table 5.13 summarises the rent management mechanism in the industrial development of the state sector in the T&G industry.

**Table 5.13: DRMA Summary for Case Study on the State Sector and Vinatex**

<b>Players</b>	<b>Type of rents</b>	<b>Incentives created by the rent</b>	<b>Factors affecting the rent management mechanism</b>	<b>Outcomes</b>
<b>Vinatex and its SOEs</b>	<ul style="list-style-type: none"> <li>- Land, credit access, quota and equipment provided by the state as a form of value-enhancing rents</li> <li>- Cross-subsidisation among subsidiaries</li> </ul>	<ul style="list-style-type: none"> <li>- Potential support for investment</li> <li>- Successful investment and capability development could reinforce rents and maintain rent-seeking power</li> <li>- Anticompetitive behaviour and some inefficiency</li> </ul>	<p><u>First level:</u> Political will to maintain social programs and political stability, and to retain economic profits</p> <p><u>Second level:</u> MoIT and Vinatex as institutional instruments to manage the sector</p> <p><u>Third level:</u> (1) Competition among firms for market profits led to incentives and pressures for effort; (2) Vinatex’s competition with other GCs led to pressure and effort to maintain rents and rent seeking power through capability development</p>	<ul style="list-style-type: none"> <li>- Mixed outcomes: some inefficiency and negative rent-seeking, but also some new capability, especially in garment production and domestic design and marketing</li> </ul>

### **5.7. Final Observations on the T&G Industry and Implications for DRMS**

For developing countries, the heart of a viable industrial policy is to develop globally competitive, technologically competent, large domestic firms, and to address any market failures that constrain the development of domestic firms (Khan, 2009a). This chapter assesses the factors that affected the learning experience in Vietnam's textile and garment industry and how that experience led to industrial development and capability building of the domestic firms. The chapter analysed the mixture of political, institutional, and industry organisational factors to explain the high and low levels of effort put into raising competitiveness in the presence of rents and rent-seeking activities since Doi Moi.

The case of the textile and garment industry in Vietnam is unique because the configuration of rent management is such that there have been mixed outcomes in the development of the industry. From technical learning and upgrading perspectives, industrial upgrading within the sector has largely been limited to low-skilled manufacturing in the garment sector. Unlike the telecom industry, the T&G industry was quickly opened up to private investment, especially FDI. However, so far T&G producers have failed to move up the value chain, to create more value-added to their production, or to engage in vertical integration, as seen in the telecom industry. In addition, since the industry was opened up early on, the market structure features a deep involvement of the state and private sectors competing for economic profits. As a consequence, there has been a great deal of competition among players in both the local and international markets. Given the relatively limited scale economies in this sector, the intense market competition has produced an effective rent management factor for effort in learning and upgrading; although, there have been notable constraints and mismanagement that have held back greater development of the industry (see the quota period). On the whole, the DRMA framework provides five important observations with

regard to the process of technical upgrading and capability-building for the textile and garment industry.

First, the industry has achieved some level of learning and upgrading, though the factors that allowed this to happen—namely market expansion and foreign capital—are no longer readily available because of changes in the international market. Cambodia, Laos and Bangladesh are aggressively competing with Vietnam in the international market. These countries have quickly developed competitiveness and have the advantage of the Most Favoured Nation status that gives them zero import duty access to important foreign markets.

Second, the literature highlights the strong support of the state in the development of the SOEs and Vinatex. The government's intention to maintain social development through job creation and retention, as well as addressing poverty in certain rural and mountainous areas, explains the state's provision of rents and political support to the SOEs to carry out both social and economic missions. Therefore, there is a clear political will to fully support Vinatex and its subsidiaries to expand and upgrade, provided that the support does not violate WTO rules.

Third, the government's body, namely the MoIT, which is in charge of the sector, has primarily favoured SOEs and state-connected enterprises and discriminated against private firms. As seen in the quota period, the MoIT lacked discipline to minimise damaging rent-seeking activities. Since most SOEs have been equitized, the role of the MoIT has been broadening to support the private sector and to oversee the industry's performance as a whole. However, MoIT has limited management and political capabilities to discipline and enforce its lower agencies and the firms linked to them. As a consequence, it depends on VITAS and Vinatex to advise and devise strategy plans for the industry (interview, 2011).

Fourth, Vinatex remains a dominant industry player and a rent-seeker, and yet is often seen as capable and competent. Our analysis sheds light on this paradox. After being restructured to become one of the 12 general corporations in 2006, the role of Vinatex in the industrial development of the sector became particularly crucial. So far it has used its close connections to the government to access important rents that it then deployed effectively to improve its overall performance. Under Vinatex, some learning, industrial upgrading, and expansion of the textile industry took place. Given Vinatex's multiple roles in the sector—as manager of state assets, provider of some social benefits, industry advisor for MoIT, market player, and rent-seeker—an important policy question is how to sustain its productive effort to boost technical upgrading and capability-building.

Finally, since Vietnam's accession to the WTO, the textile and garment industry has expanded quickly by volume but has struggled to move up the value chain. Khan (2009a) argues that free trade agreement could create favourable rents for a country only if other developing country exporters did not have free market access. But by the time Vietnam became a member of the WTO, many of its major competitors, such as China and India, were also members, and thus membership did not create any further rents for the Vietnamese textile garment industry.

Over time, the road to industrialisation has become even more challenging because Vietnam, as a member of the WTO, cannot use industrial policy or direct subsidies in the ways that the Asian Tigers did during their development. In my interview with a VITAS senior advisor in 2011, he asserted that given Vietnam's commitment to the WTO, the state has largely left the sector to the market. In the next few years, it will be even more challenging for Vietnam to maintain its export performance as fierce competition for orders in the international market and the

emergence of other developing countries that compete for similar jobs. Unless Vietnamese garment producers move further up the value chain, they will be under pressure to reduce prices and to improve quality.

In the absence of trade-based rents, the government's first priority should be to devise institutional and financial strategies that encourage learning. This is certainly not just about buying new machinery, but also about the transfer of "know how" of the technology to create competitive advantage through learning-by-doing. Next, there must be more targeted research, which focuses on identifying market demands that fit the industrial capability of the industry so that textile and garment producers can target niche markets. The third priority should be to help private firms address land, capital, information and coordination market failures. Finally, the government should identify critical priorities for reform based on the existing market failures and the industry rent management dynamics. Some of the policy conclusions suggested by the DRMS framework are discussed in the next four sections (sections 5.7.1 through 5.7.4).

#### **5.7.1. Strengthening Upstream Linkage and Addressing the "China Factor"**

Vietnam has missed opportunities to boost competitiveness in the textile sector by allowing large quantities of cheap Chinese materials to be imported into Vietnam during the crucial period of the industry's development (see case study 2). However, the country cannot afford to write off the textile sector, and should adopt strategic policies to raise its competitiveness. The DRMA suggests that a comprehensive approach to the China factor should be sought that involves increasing local textile production and improving its competitiveness. This would support the economy and expand the market for textile production. The textile sector could also benefit from market research to find

niche markets for particular types of textiles. Targeting specific niche markets may allow Vietnamese firms to develop capabilities through learning without an immediate competition with more competitive countries like China.

### **5.7.2. Restructuring SOEs to Ensure Meaningful Upgrading**

For the state sector, the SOEs continue to have privileged access to land and capital. Given the existence of these rents, there must be specific mechanisms to enforce meaningful upgrading of technologies and enhancing value-added. The government, via Vinatex and VITAS, has to adopt strategies to upgrade inefficient or failing SOEs by either equitizing them or merging them with more capable firms so that state resources can be put into efficient enterprises to promote new learning and upgrading. While creating a more friendly business environment for all enterprises, the government should utilize the state sector to carry out programs that address market failures or to implement solutions that require large-scale capital and technology investments such as Dinh Vu Polyester Fibre Project. This project could help reduce Vietnam's heavy dependence on imported materials. Vinatex especially should focus on improving the capability of its subsidiaries in the textile sector, and on enhancing new learning, technological upgrading, and technology management, especially in the second (textile), fourth (packaging and shipping), and last (marketing and sales) stages of the value chain. This last point does not imply channelling more rents into Vinatex, but it does require improving the institutional monitoring and control of the conditions associated with these rents to put pressure on Vinatex and other SOEs to enhance their learning and upgrading efforts.

### **5.7.3. Governing Vinatex**

As discussed in the previous section, Vinatex's effort in learning was motivated by competition in the market and with other general corporations. In addition, the corporation has been influenced by the desire to reinforce its political and economic power. Both of these competitive pressures will continue pushing Vinatex towards industrial development in the next decade, though there is no guarantee of Vinatex's success. However, if rents are to be used more aggressively for upgrading then additional institutional mechanisms are required to link rent allocation to the achievement of particular investment and technology acquisition goals.

While the MoIT could continue in its role of monitoring and supporting the industry, there is a strong need for a more neutral, even-handed, and capable association than VITAS to act as the intermediary between government bodies and firms. This institution could also be a watchdog to challenge the utilisation of rents by Vinatex and to ensure that it carries out its responsibility as the primary driver of the sector's upgrading. At the same time, the association could be the voice of the SMEs to communicate the bottlenecks that prevent them from achieving new industrial capability and development. By doing this, many of the problems in relation to coordination failure between firms and the state could be addressed. Vietnam could learn from the successful model used in the highly impressive Taiwan Textile Federation (Weiss, 1995). For now, both VITAS and AGTEK have failed to achieve these objectives.

### **5.7.4. Supporting the Private Sector**

As for the private sector, incentives must be provided to support and encourage investment in learning and innovation. This involves encouraging and negotiating technology transfers and training through FDI, as well as removing or compensating for the market failures that prevent them from making a profit, namely access to land and credit. The impact of foreign investments so far has been positive, although it is limited to job creation and low-skill training in the garments sector. My fieldwork data suggests that there has been limited training at the management level and insufficient technology transfer from FDIs, especially in the dyeing and finishing subsectors, which require high level of technical training and technology management.

To address this problem, Ohno (2006) argues that, at the very least, the Vietnamese government must have an on-going dialogue with foreign investors to find out what types of policy changes and rent allocations are needed in order to make longer-term investments in Vietnam more attractive for foreign investors. More importantly, the Vietnamese government must have a clear strategy that promotes learning and technology transfers so as to develop local enterprises and their capability-building. It may be difficult today to use local content requirements, but it is possible to achieve this outcome by having an integrated strategy in which incentives are created for foreign firms to allow domestic firms to enter as subcontractors. The incentives and rents created would have to be managed carefully to ensure that moral hazard and damaging rent-seeking do not derail these specific strategies (Khan, 2009b).

## Chapter 6. **Motorcycle Industry: the Triangular Rent-Seeking Relationship between Vietnam, Japan, and China**

### **6.1. Introduction**

The motorcycle industry provides another case of industrial upgrading that was largely driven by foreign direct investment, especially by multinational corporations (MNCs). In the late 1990s, Vietnam's economy was growing rapidly, which added demand for motorcycles as a means of transportation. This broadening demand attracted foreign investors to explore the Vietnamese domestic market and for local suppliers to participate in component manufacturing in the industry. Over time, Vietnamese firms participated in the supply chain by becoming lower-tier suppliers for foreign lead firms<sup>82</sup> such as Honda and Yamaha. Nevertheless, this process took time, and it did not truly begin until 2001 when spontaneous learning and upgrading took place due to China-Vietnam collaboration to assemble and produce parts for Chinese motorcycles.

From an institutional perspective, this attempt at industrial upgrading was a notable example of the Vietnamese government's failure to effectively use learning rents in the initial phase of its development. Nevertheless, because of a number of accidents, notably the penetration of Chinese motorcycles in the Vietnamese market, which created a "China shock" in the domestic market, a number of upgrading opportunities emerged that provided more effective learning incentives for local firms. This chapter assesses these dynamics and the triangular rent-seeking relationships between Vietnam, China and Japan in the motorcycle industry in Vietnam. It examines the exchanges between

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<sup>82</sup> Major brand motorcycle assemblers and manufacturers include Honda, Yamaha, and Suzuki. A lead firm is a brand-name company that manufactures and assembles its own brand of motorcycles. They also source components from first-tier suppliers.

lead firms and their suppliers, between MNCs and local enterprises, and between the state and local enterprises in the context of the global value chain for motorcycle production. Based on these insights, this chapter analyses how the three elements affecting rent management—the political, institutional, and industry organisation characteristics—affected the effort for learning, upgrading, and innovation in local firms.

The analyses suggest that since the beginning of its industrial transformation in the mid 1990s, the motorcycle industry in Vietnam successfully attracted FDI from abroad and achieved some important technological upgrading. This experience can be understood through the lens of the three levels of factors affecting rent management. At the highest level, we observe a clear political will to use FDI as an instrument to achieve learning by adopting foreign expertise and technology for local producers. This political will, however, was diluted at the implementation stage (the second level of analysis) partly because the government appeared to be uncoordinated and not well-informed about market activities. It also did not seem to accurately assess the progress some local producers were achieving. As a result of a failure to support local producers in time, foreign brands occupy the majority of the motorcycle market today.

At the third level of analysis, the DRMA framework suggests that the China shock resulted in market competition between foreign firms, notably the Chinese and Japanese, and resulted in price reductions that allowed local suppliers to join the production value chain. In addition, the availability of Chinese technology was helpful for local firms to upgrade their technical capability as these technologies were easier to assimilate compared to Japanese technologies. These factors added up to a developmental rent management mechanism that enhanced learning effort and upgrading for local enterprises. Consequently, despite policy failures at the state level, upgrading could take place at the firm level given the combination of available incentives, the

pressures from market competition and the ability of workers to learn the new technologies.

It should be noted that the motorcycle industry is an important part of the supporting industries in Vietnam. Thus, secondary data often refer to either or both of these industries. Traditionally, supporting industries imply mechanic and electronic industries. However, in Decision No. 12/2001/TD-TTg (Decision 12), the Vietnamese government includes five industries to make up the Vietnamese supporting industries: (1) textile and garment, (2) leather and footwear, (3) electronics, (4) automobile and motorcycle production, and (5) mechanical manufacturing. In Vietnam, many suppliers for the motorcycle industry also supply components for other industries. This is because the Vietnamese motorcycle industry pioneered supplier networks for mechanical, electronic, and other supporting components. In this thesis, the industrial development of the motorcycle industry in Vietnam is the focus of the analysis, although reference to the supporting industries is included.

The following sections of this chapter are organised as followed. Section 6.2 provides the background to the motorcycle industry, the stages of localisation in the value chain, and the three phases of the industry's development in Viet Nam. Section 6.3 reviews the industry's constraints including in technology learning and upgrading, in the capital and credit markets, in coordination, and other factors. Sections 6.4, and 6.5 provide case studies using the DRMA framework. Section 6.6 discusses the current standing of the industry's development, especially after the China shock. Finally, section 6.7 provides concluding remarks, observations, and policies implication.

## **6.2. Background of the Motorcycle Industry in Vietnam**

Since the mid-1990s, the motorcycle industry in Vietnam has achieved a number of important milestones. In the years leading up to 2005, the industry accounted for 3.1 per cent of the total industrial production value of the country (Ministry of Industry and Trade, 2007), and this value grew to 23.9 per cent by 2007 (Vietpartners, 2007). Revenue per annum was between VND 24.99 trillion to 29.15 trillion (USD 1.2 to 1.4 billion), of which 10 per cent went to the government (Vietpartners, 2007). Export value in 2005 was VND 1.45 trillion (USD 70 million), which is 30 times higher than in 2001 (Vietpartners, 2007).

In 2010, Vietnam was the fourth largest market for motorcycle sales worldwide, after China, India, and Indonesia, respectively (Quoc-Hung, 2012b). In 2011, the Vietnamese motorcycle market sold 3.7 million<sup>83</sup> units and grew 22 per cent from 2010. In 2011, the five largest motorcycle manufacturers in Vietnam—Honda<sup>84</sup>, Yamaha, Suzuki, SYM, and Piaggio<sup>85</sup>—are estimated to have sold approximately 3.32 million motorcycles combined in Vietnam (Quoc-Hung, 2012a). If this estimate is correct, the five largest motorcycle manufacturers in Vietnam took roughly 90 per cent of the market share, leaving Lifan (China), Kymco (Taiwan), and Sufat (Vietnam) to split the remaining 10 per cent of the market.

In 2012, sales in the Vietnamese market slowed down to 3.11 million units, of which Honda sold 1.95 million units (dtinews, 2013), taking 62.7 per cent of the total Vietnamese market share. Second to Honda, Yamaha sold 800,000 units (dtinews, 2013),

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<sup>83</sup> This figure has had differing volumes. For example, the report from *dtinews* (2013) showed that total units sold in 2011 was 3.31 million units.

<sup>84</sup> Honda's 2012 market share in Vietnam was more than 61 per cent. It sold more than 2 million units in 2011, and more than 2.3 million units in 2012 (Quoc Hung, 2012a).

<sup>85</sup> Piaggio has sold approximately 180,000 units in Vietnam since it officially entered the Vietnamese market in 2009. In 2012 Piaggio produced four different models at its maximum capacity in Vietnam: 100,000 units with a 70 per cent local content ratio. Piaggio aims to increase productivity in Vietnam to 300,000 units per year with 90 per cent local content ratio. It also plans to build both a manufacturing firm to produce engines and an R&D center in Vietnam (Quoc-Hung, 2012a).

or 25.7 per cent of the total market. Thus, two of the five FDI companies in the sector shared roughly 88.4 per cent of the total market share in the Vietnamese market. In 2012, motorcycle production as an assembly industry was estimated to employ about 20,000 workers, as well as tens of thousands of workers in support industries and related services. The localisation ratio (percentage of parts of each unit to be made by the lead firms) is between 70 and 95 per cent, depending on the firm. Honda's local content ratio reached nearly 95 per cent on some of its models (Quoc-Hung, 2012a).

Starting in 2010, the major foreign motorcycle makers in Vietnam started to export their production surplus to other markets. In 2011, Honda exported 300,000 motorcycles to the Philippines, Cambodia, Laos, and Afghanistan (Tran, 2012d). Yamaha and Piaggio have also exported their Vietnamese-built motorcycles, though in smaller quantities. All of these manufacturers plan to expand production in Vietnam and to increase their exports abroad. In 2013, motorcycle makers in Vietnam expect to reach full production capacity of 5 million vehicles, though the domestic market only consumes 3 to 3.5 million units per year (dtinews, 2013). This means there is a potential excess of 1.5 to 2 million units that could be exported.

Given the industry's rapid success, it is often forgotten that the industry did not start to develop until the mid-1990s, when the Vietnamese government launched an import substitution policy by erecting trade barriers while providing incentives for foreign investors. By the late 1990s, major motorcycle companies had established investments in Vietnam, including transnational corporations (TNCs): Taiwan's VMEP and Japan's Suzuki, Honda, and Yamaha (see Table 6.1) Some Taiwanese and Japanese parts manufacturers followed the lead of the motorcycle companies (the lead firms) and built plants in Vietnam to produce parts such as tires, batteries, electric and plastic parts, and breaks. Fujita (2007) contended that by the late 1990s, the Vietnamese motorcycle

industry was dominated by foreign manufacturers that created an oligopolistic market. Foreign motorcycle firms were able to set high prices that exceeded the high costs of operation, which enabled them to enjoy substantial rents.

**Table 6.1: Major Foreign Motorcycle Firms in Vietnam, 1992–2013**

Name of Company	Year of License	Ownership Structure
Vietnam Manufacture & Export Processing Co., Ltd. (VMEP)	1992	– Chinfon Group, producer of SYM motorcycles (Taiwan, 100%)
Vietnam Suzuki Corp.	1995	– Suzuki Corp. (Japan, 35%) – Sojitz (Japan, 35%) – Vikyno: Southern Agricultural Machinery Corp. (Vietnam, 30%)
*SuFat Vietnam Corporation	1996	– Sufat (Vietnam, 100%)
Honda Vietnam Co., Ltd.	1996	– Honda Motor Co., Ltd. (Japan, 42%), – Asian Honda Motors (Thailand, 28%), – Vietnam Engine & Agricultural Machinery Corp. (Vietnam, 30%)
Yamaha Vietnam Co., Ltd	1998	– Yamaha Motors (Japan, 46%), – Hong Leong Industries (Malaysia, 24%), – Vietnam Forestry Corporation (30%)
Lifan Motorcycle Manufacturing JV Co.	2002	– Chongqing Lifan (China, 70%), Vietnam Import-Export Technology Development Co. (30%)
*Kymco Vietnam	2005	– Kymco (Taiwan), – Hoa Lam (Vietnam)
*Piaggio Vietnam	2009	– The Piaggio Group (Italy, 100%)

*Source:* Author's compilation based on Fujita (2008). \*Author's own data.

In an effort to speed up negotiations for the country's entry into the World Trade Organization (WTO), the Vietnamese government abolished a series of regulations that had previously restricted sales of motorcycles and the expansion of production by

foreign motorcycle manufacturers. This move significantly boosted domestic sales of foreign-brand motorcycles and stimulated a new wave of FDI in the expansion of production and component production. It also set the industry on a more market-oriented path of development. However, local firms did not fared well during this period, as discussed throughout this chapter.

### **6.2.1. Summary of Government Policies (1995 to 2011)**

This section provides a chronological summary of the government policies from 1995 to 2011. It highlights the swift changes the Vietnamese government's policy agenda had in forcing the development of the local firms through participation of FDI in the Vietnamese market.

- **Mid-1990s:** The Vietnamese government introduces import subsidy policies as trade barriers but also provides incentives to attract FDI to the industry (Fujita, 2007).
- **1998:** Prohibition of completely built units (CBUs)<sup>86</sup> and localisation requirements introduced. The local content policies means that MNC firms have to pay high import tariffs if the proportional local content ratio is low, and vice versa (Fujita, 2007).
- **February 2000:** New policy enacted requiring all countries exporting motorcycle parts to Vietnam to submit quality certificates from their respective countries to prevent inferior quality motorcycle part imports into Vietnam. The policy was implemented in response to pressure from Japanese investors to restrict smuggled

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<sup>86</sup> Completely built units or CBUs are motorcycles fully assembled abroad and are imported to Vietnam as a complete unit.

motorcycles and parts from China and because of quality issues with Chinese/Vietnamese co-manufactured motorcycles (Jalaluddin, 2002).

- **2001:** The Vietnamese government starts to implement local content policies and to audit the records of Vietnamese and Chinese firms looking for tax evasion. Existing firms expected to maintain at least 60 per cent local parts in their production. In addition, the government bans imports of 20 identifiable motorcycle parts to protect its domestic industries, arguing that these parts can be made locally (Jalaluddin, 2002).
- **September 2002:** The Vietnamese government introduces further controls on motorcycle parts by imposing import quotas for components. These policies announced without any notice. Since the allocated quotas were not sufficient for Honda and Yamaha, they suspend production temporarily until additional quotas are granted. This policy came under strong criticism among FDI investors.
- **2003:** Import quotas abolished but the Vietnamese government enacts a policy requiring FDI motorcycle manufacturers to operate according to the projections in their business plans, which they submitted to the authorities when their projects were licensed. Obviously rapid market growth in the early 2000s was not envisaged in the late 1990s. This policy constrains various Japanese companies from expanding their investment and it comes under severe criticism by the Japanese business community. The policy was abolished in April 2005 as the result of intergovernmental negotiation.
- **January 2003:** The Vietnamese government abandons local content rules. This decision primarily due to its effort to gain accession to the WTO (Fujita, 2007).
- **2003–2005:** The Vietnamese government abandons restrictions on motorcycle registration, specifically rules that require that a resident can register only one motorcycle and it has to be registered under the home address of the motorcycle

owner.<sup>87</sup> Additionally, the rule that bans registration of new motorcycles in the inner districts of Hanoi is revoked.

- **2007:** “Master Plan for the Development of Vietnam’s Motorcycle Industry in the Period of 2006-2015, with a Vision to 2020” is issued by the Ministry of Industry.
- **2007:** The Ministry of Industry issues Decision 34/2007/QD-BCN “Master Plan for Development of Supporting Industries until 2010, Vision until 2020.” The decision specifies that policies will focus on boosting five industries: (1) textile and garment, (2) footwear and leather, (3) electronics and informatics, (4) manufacturing and assembly of automobiles, and (5) manufacturing mechanical engineering with the express purpose of creating new breakthroughs in the development of other primary industries in Vietnam. The decision has general terms that specify areas where government subsidies will be generated.
- **2011:** The prime minister signs Decision 12/2011/QT-TTg (Decision 12), which is designed to encourage and create conditions for domestic and foreign organisations, as well as individuals, to develop the supporting industries. Several different types of subsidies are proposed by Decision 12, including promotions for market development, infrastructure, human resource training in science and technology, and finance (Dezan, Shira, & Associates, 2011).

### **6.2.2. Stages of Localisation**

Localisation played a vital role in the acquisition of technology in Vietnam’s motorcycle industry and supporting industries. Mishima (2005b) describes the five stages of localisation that were a channel for technological transfer from FDI manufacturers. Table 6.2 provides examples of value chains in Thailand and Indonesia.

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<sup>87</sup> Each Vietnamese citizen could be resident only under one address.

It illustrates how these countries went through five stages of development using localisation ratio as a measurement. This value chain framework is employed in the case studies and referred to throughout the chapter.

**Table 6.2: Value Chain in Stages of Localisation**

Stages	Description	Thailand and Indonesia's rate of localisation
1	Assemble complete knockdown units (except for engines and electrical parts)	50% or less
2	Move to localisation (in-house production; labour-intensive)	70%
3	Arrival of key parts suppliers for foreign lead firms	80%
4	Broad agglomeration of supporting industries (capital-intensive)	90%
5	R&D and exports	90% or more

*Source:* Mishima (2005a)

Generally, in the first stage of the value chain of motorcycle production, local enterprises assemble complete knockdown motorcycles (CKD motorcycle)<sup>88</sup> built with imported engines and electrical parts. At this stage, a small number of domestic suppliers are used for under-body parts such as tires, batteries, and harnesses to save on high transportation costs. In the second stage, lead firms switch from imported parts to in-house production of those parts, which, in turn, increases the localisation ratio. Even at this relatively early stage, lead firms begin to produce engines in-house and often invite engine and electrical part suppliers to supply smaller parts to the lead firms (Mishima, 2005b).

<sup>88</sup> A complete knockdown (CKD) motorcycle is a complete kit of pre-manufactured parts needed to assemble a motorcycle. Motorcycle makers (the lead firms) sell knockdown kits to their foreign affiliates or licensees for various reasons, including to avoid import taxes or to receive tax preferences for providing local assembling and manufacturing jobs.

By the third stage, lead firms which previously manufactured important parts, such as engines in-house, begin to invest in the local country (Vietnam in this case) and to outsource key parts, including engines, carburettors, brakes, and so on to local suppliers. The volume of complete knockdown motorcycles made with 100 per cent imported parts decrease significantly. Mishima (2005b) observed that Vietnam transitioned into the third stage in 2005.

In the fourth stage, nearly every needed supplier—mostly foreign but also domestic—has been set up in business so that parts can be purchased locally. First-tier and even second-tier suppliers also do heavy industrial manufacturing such as metal pressing and sheet processing locally. At this stage, the local subcontracting network is extensive, so local suppliers are more engaged in the manufacturing process. In addition, the number of suppliers for each component begins to increase, which leads to stiff competition among suppliers. Suppliers with sufficient capacity to meet the manufacturers' requirements for quality, cost, and delivery (QCD) compete by offering their products at lower cost while promising to maintain high QCD standards. In 2013, Vietnam completed the fourth stage. The motorcycle industry involves local suppliers' actively participate in the complex production chains as first- and second-tier suppliers for foreign MNCs. In Vietnam, Honda's local content ratio ranges from 70 to 95 per cent in some of its low-cost models (Quoc-Hung, 2012a).

In the fifth and final stage, foreign producers begin to transfer their research and development (R&D) to the country of manufacture, and a full-scale export strategy from the production base of that country begins to be implemented. In 2013, Vietnam began to enter this final stage. Currently, Honda, Piaggio, and locally owned Sufat Vietnam have R&D centres located in Vietnam. In addition, Honda, Yamaha, and Piaggio have started to export some of its surplus production to neighbouring markets, although it is predicted

to be difficult, given the slow growth in global demand for motorcycles and competition from abroad (Tran, 2013a). Table 6.3 illustrates the Vietnamese experience adapted from Mishima's framework and the approximate corresponding period, which the industry developed through each of the stage.

**Table 6.3: Stages of Localisation in the Vietnamese Motorcycle Industry**

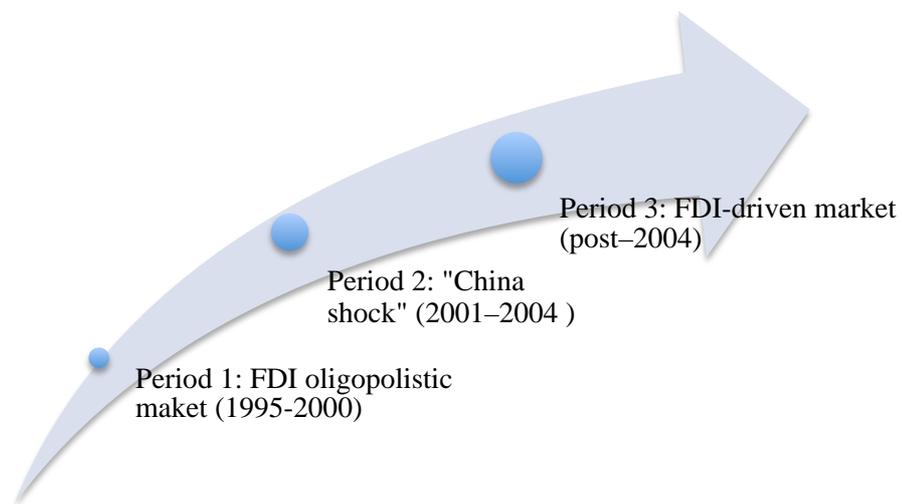
<b>Stages</b>	<b>Description</b>	<b>Proximate Year</b>	<b>Vietnam's rate of localisation</b>
<b>1</b>	Assembled complete knockdown units	1995-2000	40% or less
<b>2</b>	Moved to localisation by ways of in-house production and use of foreign and local suppliers for basic components (labour-intensive)	1998-2005	60%
<b>3</b>	Arrival of key parts suppliers for foreign lead firms and increase in number of lower-tier local suppliers that produced more diversified components.	2001-2009	70%
<b>4</b>	Broad agglomeration of supporting industries (capital-intensive)	2005-2013	90%
<b>5</b>	R&D and exports	2013	90% or more

In the remaining part of the chapter, rents and rent-seeking relationships are analysed in reference to these five stages as a point of comparison in assessing the industry's industrial progress.

### **6.2.3. The Industry's Transformation**

Contextually, this author divides the development of Vietnam's motorcycle industry in three periods: 1995-2000, 2001-2004, and post-2004. Figure 6.1 illustrates the periods, which correspond with the case studies in this chapter.

**Figure 6.1: Three Periods of Industrial Development**



The first period of the industrial development of the Vietnamese motorcycle industry started in the mid-1990s. In the spirit of Doi Moi, the government enacted industrial programmes in the motorcycle industry. One of the first measures was a series of import substitution policies that erected trade barriers while providing incentives to attract FDI in the industry. The intention was to provide various rents to local enterprises and to foreign investors to encourage foreign transfer of technology by establishing manufacturing lines and employing local suppliers. This series of policies, however, created an unintended oligopolistic market for Japanese and some Taiwanese producers. These foreign producers imported CBUs or CKD units from abroad, which kept market prices extremely high. Given the lack of competition, foreign investors were able to see tremendous profits in Vietnam until Chinese motorcycles flooded the market during the second period, known also as the “China shock” period.

The second period of the industry’s development started with this large-scale penetration of Chinese motorcycles. The “China shock” experience marked an industrial transformation of the domestic firms. During this period, local Vietnamese firms acted

both as assemblers and later as parts suppliers for Chinese lead firms as they sought profits in the low-cost market, which had remained unexploited by Japanese motorcycle manufacturers. The Vietnamese firms achieved notable industrial upgrading during this period (Fujita, 2010).

Also in the beginning of 2001, the Vietnamese government imposed proportional import tariff on motorcycle parts based on local content ratio and new quality standard requirements. The policy effectively transferred rents to Japanese manufacturers, who could easily meet the requirements to capture additional subsidies, though they demanded better policy mechanisms to protect and enforce their trademarks and intellectual property rights. After 2002, Japanese manufacturers successfully recaptured substantial market shares from Chinese–Vietnamese producers. As a consequence, a number of local assemblers<sup>89</sup> and suppliers went out of business.

In the third period (post–2004), the industry took a major turn. Starting in 2005, the industry was once again largely occupied by major foreign motorcycle manufacturers, with local firms participating lower down in the production chain. The Vietnamese government removed its administrative and trade barriers to attract more FDI, especially small and medium enterprises (SMEs), but this left local firms competing directly with FDI businesses. Consequently, nearly half the local businesses went under due to their inability to compete: of the 51 Vietnamese firms surveyed by Fujita (2007), 35 left the industry. Nevertheless, motorcycle production continues at a high growth rate due to expansion in market demand.

Although Vietnam has regarded its motorcycle industry as a key industry since the mid-1990s, a comprehensive government strategy for developing it was not created

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<sup>89</sup> Local firms started out as assemblers for foreign lead firms doing only assembling work. Later, they became suppliers for the higher tier supplier or for the lead firms. Being supplier is the next level of technical capability because, at this level, they would manufacture components instead of assembling them.

until 2007, after the industry entered a new phase in 2005. This delayed policy agenda meant that there were limited capital accumulation and technical learning possibilities for local producers in the earlier period. The result was a restricted success of the domestic motorcycle manufacturing over the past two decades and the absence of a major breakthrough in Vietnamese production. This can be seen as a missed opportunity for Vietnam to develop its domestic motorcycle industry with its own brands.

### **6.3. Industry Constraints**

A survey on the capability of local suppliers in the Vietnamese motorcycle industry was conducted by the Institute for Industry Policy and Strategy in 2008, and it revealed that the supporting industries were experiencing major constraints for a number of reasons. First, a large number of relatively “easy” parts and components made of cast iron, steel, or plastic continued to be imported because no local company could supply them. Second, the engineering and technical capability of domestic suppliers was generally low and they could not perform at an appropriate QCD level. Third, the ability to supply large quantities of quality parts was low. Fourth, attention was largely placed on the cost of materials, with far less attention on the costs associated with waste, defective parts, limited inventories, and uneven quality of inputs. Finally, local producers were unable to invest in the necessary human and physical capital to become viable part manufacturers (Vietnam Development Forum, 2011). The validation of this survey is confirmed in my fieldwork as a number of my interviewees made similar observations. This section focuses on the three most important constraints found within the motorcycle industry: technical learning and upgrading, capital and credit markets, and coordination failures.

### **6.3.1. Technological Learning and Upgrading**

Since the opening of the industry, learning has taken two forms: collaborating with foreign enterprises and upgrading by domestic firms using alternative financing opportunities. An example of the former is the Ha Noi Plastic Company. It started as Honda Vietnam's suppliers, but the company increasingly developed linkages with other foreign motorcycle firms, and now it also supplies large precision plastic parts for home appliances, such as washing machines and air conditioners. In 2010 the company purchased a 1,500-ton injection moulding machine to expand its customer base (Vietnam Development Forum, 2011).

Examples of the latter include local firms' efforts to invest in available, often second-hand equipment and technology to reduce costs and to boost the technical skills of engineers and workers. These self-initiated efforts often take more time and a number of attempts before a firm succeeds in acquiring new capabilities. However, some Vietnamese firms have developed skills that made them globally competitive, such as the Hoang Phat Company and Tan Hoa Mechanical Company. Both of these enterprises started out using second-hand imported equipment from Taiwan and slowly improved their technical capabilities to produce parts that satisfied the standards required by Japanese and Taiwanese lead firms, eventually becoming their suppliers (Vietnam Development Forum, 2011). An interview with an expert at a research think-tank in Ha Noi suggests that this type of self-effort upgrading takes place at a much slower pace, and enterprises are often held back due to lack of capital and technical skills.

However, the transfer of technology from FDI lead firms to local suppliers can also be slow and is often incomplete. In my interview with a manager of a Japanese-

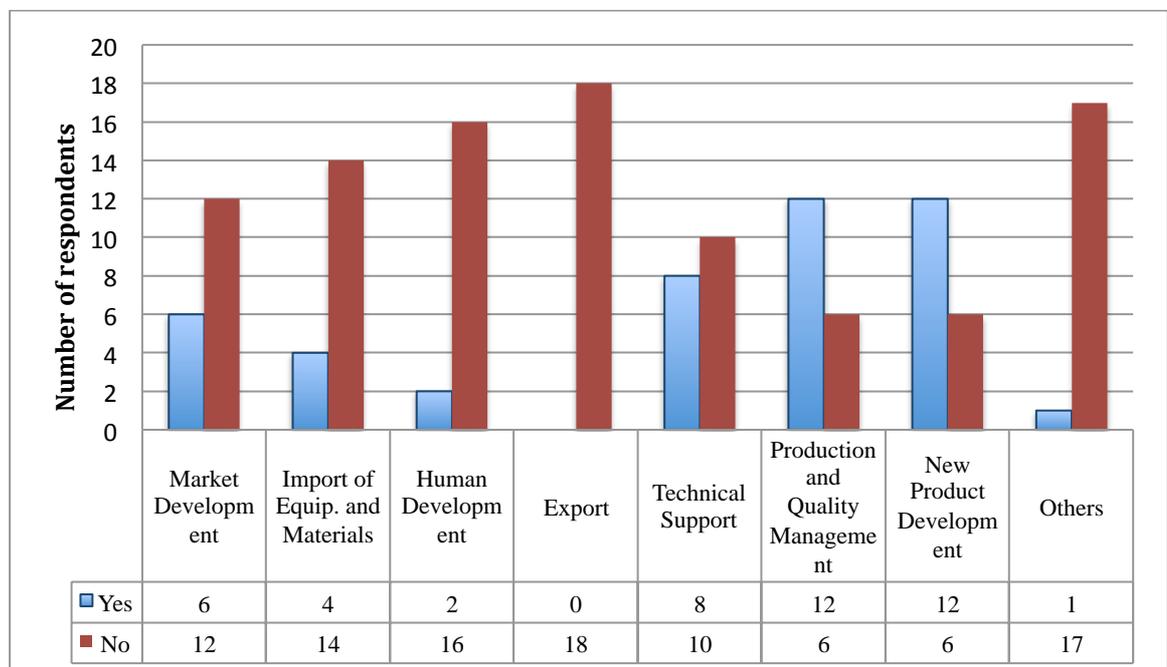
Vietnamese joint venture and first-tier supplier to Honda Vietnam, he explained that there was technology that his company mastered years ago, and yet when this same technology was transferred to a local second-tier supplier, they simply could not perfect it despite the fact that Honda provided them with technical assistance for a few years. For example, in 2008, the first-tier supplier (GTL) had agreed to transfer technology that used robots to run and monitor production of few select components to one of GTL's second-tier suppliers (TLM), a local SOE located in Hanoi. After three years of technical support from GTL, TLM continued to encounter multiple errors in its production using this technology. My interviewee told me that this was puzzling since GTL had produced components using this robotic technology with nearly 100 per cent accuracy for years. I asked why this happened and he pointed out that TLM (and other similar local suppliers) did not respect certain important procedures in the use of this technology, causing failures in operation. He explained that, for example, TLM would fail to maintain the robot by skipping steps in the maintenance and operation procedures.

Additionally, several interviewees pointed out that formal training or education does little to supply skilled resources to local firms, and that most of the learning takes place at the workplace (*cam tay chi viec*). This is another reason why the upgrading and learning at local suppliers occurs at a much slower pace. Two of the local firms that I visited (one assembler and one supplier) confirmed that the majority of their investment in training and technical upgrading was based on either hiring experts, learning by doing or asking advice from colleagues who work for other foreign firms.

Managers of firms that I interviewed told me that they could overcome certain impediments through learning and collaborating with foreign suppliers for transfer of technology, but that many foreign firms, especially Japanese ones, often require strict QCD and management standards *before* they are willing to sign a contract with local

firms for any type of technology or skills training. Achieving these strict standards can take as little as six months or as long as a few years depending on the initial capability of the local firm. Figure 6.2 shows that among the eight areas of support listed in the figure, local suppliers received the most help in production and quality management, new product development, and technical support from their foreign lead-firms and higher-ranked suppliers.

**Figure 6.2: Activities Supported by Buyers in 2011**



*Source:* Data provided by Centre for Supporting Industries and Enterprise Development, MoIT.  $N = 18$ .

According to Figure 6.2, of the 18 suppliers who responded to the Centre for Supporting Industries and Enterprise Development’s survey, 12 received support in the areas of new product development (denoted as ‘Yes’ in the figure) and production and quality management. It should be noted that none of the suppliers received any support

in exporting (denoted as 'No' in the figure), only two received support in the area of human development including technical training and four received assistance for importing equipment. However, as mentioned above, it is often overlooked that to obtain a component supply contract with a foreign firm, a local firm must initially satisfy a strict set of criteria that requires a learning period on its own.

In addition to the lack of technical learning and upgrading, there is a shortage of investment capital and there are problems related to obtaining state loans for investment. Section 6.3.2 discusses these constraints in detail.

### **6.3.2. Capital and Credit Markets**

A major constraint facing private local SMEs in Vietnam is the shortage of investment capital due to a weak credit market. Throughout the industry's development, these suppliers have lacked access to long-term loans or an equity-based financing system. The issue is exacerbated because on the one hand, state-owned commercial banks have strict collateral requirements, difficult administrative processes, and limited incentives to lend to private SMEs. On the other hand, SMEs are unwilling to tangle with state-owned commercial banks given the low chance of success in meeting their requirements. This generates a vicious circle that prevents many SMEs from entering the formal credit sector, forcing them to rely on informal credit, which then slows down the learning and upgrading processes (Ministry of Industry and Trade, 2012).

One of my interviewees, an owner of a local supplier, reported that as of 2011 (the time of the interview), Honda and other foreign lead-suppliers were willing to provide training with the caveat of meeting their standards. This owner did not have the immediate capital to upgrade the equipment, which he had purchased in the early 2000s;

his technology was simply too old to meet Honda's requirements. At the time of this interview, it had taken him eight months to build a production chain to produce the components that he thought was nearly of the quality that Honda (and others) required. He said it would have taken him less time if he were to have extra finance to invest. He also revealed that he was in the process of negotiating with Honda Vietnam to be their supplier. However, this opportunity would be put on hold once again if Honda requires new equipment, which he could not afford to buy, as his finance had been exhausted.

According to this same interviewee, in 2011, as a part of Honda's plan to expand production in Vietnam, it actively sought new suppliers, but local suppliers could not meet its standards criteria, partly because they did not have the capital to invest in production machinery to take advantage of the opportunity. This created a bottleneck as local suppliers lost this chance to sign a contract with a lead supplier, and Honda could not get all the components that they needed locally for expansion in Vietnam.

Aiming to address these financial bottlenecks, the Vietnamese government instituted banking reforms. The Private Sector Promotion Action Plan, the so-called Miyazawa Plan, agreed upon between Japan and Vietnam in 1999, included the promulgation of the Decree on Lending Guarantees; the Circular related to the Auction System; the Decree Liberalizing Transactions involving Land Use Rights; and the establishment of the Stock Exchange Centre (Ministry of Industry and Trade, 2012). Another key milestone for further improving the financial environment for SMEs was the creation of a two-step loan fund<sup>90</sup> and a credit guarantee fund<sup>91</sup> (Richards, Harvie,

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<sup>90</sup> An agreement for a two-step loan fund was signed between the Japan Bank for International Cooperation and the government of Vietnam in 1999. It provided long-term credit to Vietnamese SMEs through participating select financial institutions, such as joint-stock commercial banks. It was expected that 70 per cent of the beneficiaries from this fund would be private SMEs.

Nguyen, & Nguyen, 2002). In early 2010s, the government also proposed to improve the regulatory framework on lending, mortgaging, and leasing, and the pending banking sector reform that would provide SMEs with greater access to credit (interview with MoIT official, 2011).

Overall, the Vietnamese government's use of private financial institutions rather than state-owned commercial banks to provide investment capital for domestic suppliers has had several major shortcomings as detailed by Richards, et al. (2002). First, the coverage of the two-step loans and credit guarantee fund are not sufficiently targeted to have meaningful effects on parts suppliers. Second, the broad coverage encourages rent-seeking activities by enterprises seeking to access these funds even though their business operations have little relation to the development of the motorcycle industry and supporting industries. Third, SMEs faces a number of difficulties related to insufficient corporate financial information, insufficient evaluation capacities of banks, and high collateral requirements. Finally, the impact of these reforms on the domestic private sector remains limited because private firms often times could not secure access to land-use rights, which would be their most valuable source of collateral. By contrast, most SOEs, given their relationship with the government, can lease public lands from the government. This gives them a significant advantage over the private domestic sector in securing loans for investment (Richards, et al., 2002). As a result, continuous institutional invention and adjustment is needed to overcome these problems. In essence, the capital and credit markets are a major constraint for the motorcycle industry because private SMEs continue to face enormous difficulties in gaining access to capital and land.

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<sup>91</sup> The credit guarantee fund for SMEs aimed to encourage financial institutions to lend to SMEs by absorbing a part of the credit risk, thereby alleviating borrowing constraints as a result of their insufficient collateral.

### **6.3.3. Coordination Failures**

In the case of the motorcycle industry, government faced a number of coordination failures in their policies for infant industry protection. Consequently, supports for industrial learning and capability-building turned out to be inadequate. There are three instances between 2001 and 2004 (the China shock period) that illustrate this failure.

In 2001, the government started to implement new local content policies: firms were expected to use at least 60 per cent local parts in their production. The new policies introduced new standards for products and assembly plants (Nguyen, 2005) while banning imports of 20 identifiable motorcycle parts to protect domestic industries, arguing that these parts could be locally produced (Jalaluddin, 2002). In reality, however, these locally made parts did not meet foreign firms' quality standards. The local content policy created a problem, as it forced foreign firms to buy local products from local suppliers that were largely incapable of meeting quality standards. As a consequence, this policy created bottlenecks for both foreign firms and local suppliers. Chinese and Vietnamese lead firms went so far as to import CKD units, and CBUs from China, which were banned in Vietnam, and simply assembled them in Vietnam. In addition, they falsely claimed Chinese-made components to be Vietnamese-made in order to meet the localisation ratio. Thus, there were motorcycles assembled in Vietnam with Chinese-produced parts while others were flat-out Chinese motorbikes from kits. In either case, the Vietnamese market was selling motorcycles with virtually no locally made components, despite the claim that they met the 60 per cent local ratio policy (Jalaluddin, 2002). The government was either "unaware" of these actions (or accepted bribes to look away) or took no action against them.

The second example occurred when the Ministry of Industry and Trade introduced additional controls on motorcycle parts by imposing import quotas without notice. Beginning immediately on September 4, 2002, the ministry slashed the number of sets (one set makes one motorcycle) that firms could import during the year from 2.5 million to 1.5 million sets. Furthermore, of the reduced quotas, 600,000 sets were allocated to the seven foreign manufacturers, with the remaining 900,000 sets divided among 55 Vietnamese manufacturers (Fujita, 2007). The move prompted a storm of protest from three of the foreign manufacturers—Honda, Suzuki, and Yamaha—which had based their annual production targets for their joint-venture operations in Vietnam on the larger original quotas. Assembly lines at Honda's plant in the Vinh Phuc province, northwest of Hanoi, ground to a halt on September 18, while Yamaha stopped production at its plant on the outskirts of the capital a month later because it ran out of parts (Agence France Presse, 2002). In addition, interviews from my fieldwork confirmed that also during this period, domestic firms were audited for possible tax fraud in their claims of localisation ratios. Those that were under investigation by the tax authority were not permitted to obtain import quotas to continue production, leading to production being halted for local assemblers for a sustained period in 2002. In this case, both foreign and local firms suffered from lower production output because of the MoIT's quota policy and consumers suffered price increases as a result of supply shortage. The government backtracked by lifting import quotas at the beginning of 2003.

The coordination and policy failures seen in the localisation requirement and the import quota policy suggest that the MoIT was disconnected with the reality of the industry, so their policies did not reflect the actual capability or needs of foreign or local firms. These local suppliers could not possibly produce enough parts, let alone quality parts, for the manufacturers without an appropriate period of learning and upgrading.

One outcome of the inappropriate policies was that the prices for motorcycles rose for a period of time.

In the third example, in 2003, the Vietnamese government enacted a policy requiring foreign motorcycle manufacturers to operate within the projections in their original business plans. However, in early 2000s, the rapid market growth had been unexpected and thus foreign assemblers exhausted their permitted production before the year ended. With this new policy, production was again affected because market demand increased but companies were constrained from production. This policy too came under severe criticism by the foreign business community. As with the preceding policy examples, this policy too was abolished in April 2005 as the result of intergovernmental negotiations (Agence France Presse, 2002).

The events that took place between the late 1990s and early 2000s illustrate the severe coordination failure at the state level that created bottlenecks and setbacks for both foreign and domestic enterprises. In all three examples, the government devised a number of rent policies and structures to implement them. However, it failed to make sure that the rents produced value-enhancing outcomes instead of constraining the development of the industry. This is partly due to the fact that these policies were devised and introduced at very short notice. Hence, domestic suppliers and foreign lead firms did not have enough time to adjust their operations accordingly nor was the policy designed to provide adequate resources and incentives to domestic firms to engage in the necessary investment and learning. In consequence, not only did domestic suppliers fail to learn and to upgrade their capability, the government also frustrated foreign investors. Table 6.4 briefly outlines the policies from 1990 to 2005.

**Table 6.4: History of Rent Policies pre-1990 to 2005**

<u>Year</u>	<u>Content</u>
<b>Before 1990</b>	Import restrictions on CBUs
<b>1997</b>	Ban on CBUs; Local content requirements introduced
<b>January 2011</b>	Imposed proportional import tariff on motorcycle parts based on local content ratio
<b>2002</b>	Raised import tariff
<b>September 2002</b>	Set quotas on imports of component sets; relaxed quota requirement in November 2002
<b>2003</b>	(1) Abolished quotas on CBUs (2) Imposed administrative restrictions on imports in accordance with previously approved business plans.
<b>2004</b>	Normalised import tariff on components
<b>2005</b>	Removed administrative restrictions on imports based on business plans

*Source:* Adapted from Nguyen (2006)

#### **6.3.4. Other Challenges**

The opening of the Vietnamese market to foreign investors starting in 2005 imposed critical challenges for domestic Vietnamese firms, which saw their market share shrink drastically. By 2007, many foreign manufacturers had achieved phenomenal growth rates in the Vietnamese market, while the market share of 100 per cent Vietnamese-owned firms had shrunk to roughly a negligible 2 per cent (Fujita, 2007). Of the 3.7 million motorcycles sold in Vietnam in 2011, only around 380,000 were manufactured by either Vietnamese or Chinese lead-firms (Quoc-Hung, 2012a). This means that the top five foreign manufacturers (three Japanese, one Taiwanese, and one Italian) sold more than 90 per cent of the market or 3.66 million units. Of this staggering amount, Honda was the dominant seller, occupying approximately 62 per cent of the

market. By 2012, many Vietnamese motorcycle assemblers were on the verge of going out of business (Quoc-Hung, 2012a).

During my fieldwork in 2011, one local assembler told me that the local business in motorcycle assembly is like a car that is running out of fuel. He was pessimistic about both his business and the overall business environment for local firms because the market for Vietnamese low-cost motorcycles is nearly non-existent when foreign manufacturers continuously introduce low-cost models to compete in the low-end market segment. Quoc Hung (2012a) reported that the number of local firms and suppliers had shrunk from 56 firms in early 2000s to less than 30 in 2012, of which there was only one 100 per cent Vietnamese-owned plant. One of the firms that closed down, the Hoa Lam Company, had once been well-respected and had a well-known brand—Halim—but it largely left the market after selling most of its stakes to Kymko Vietnam, a Taiwanese-based motorcycle maker (Quoc-Hung, 2012a). Similarly, in her fieldwork, Fujita (2010) demonstrated that the number of assemblers decreased from 51 in 2002 to 28 in 2006. Between 2002 and 2006, 28 manufactures left the motorcycle industry though 12 new ones entered the market in that period (Fujita, 2010).

The challenge became even more severe when the Vietnamese government could no longer use the import-substitution strategy employed in periods 1 and 2 because of its commitments to various trade agreements, especially to the WTO and with the ASEAN<sup>92</sup>+3 countries. In particular, protections against the ASEAN–China trade block must be completely removed by 2015 because of the creation of the ASEAN–China Free Trade Area (see Chapter 5, section 5.2.1.). This translates to mean that 7,881 product categories, or 90 per cent of imported goods, are to be freely exchanged within this area

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<sup>92</sup> ASEAN countries include: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. ASEAN +3 includes all members of ASEAN plus China, Japan, and South Korea.

with zero tariffs. Ohno (2008), asserts that “this is a great concern for Vietnam since ASEAN is the strong production base of Japanese products such as automobiles and electronics” (p. 1) so Vietnam will be forced to switch from producing and assembling their own products to importing similar products from neighbouring countries. Such a phenomenon would create considerable negative pressure on the country’s trade balance, as Vietnam would likely experience a larger trade deficit (Ohno, 2008).

### **6.3.5. Introduction to the Case Studies**

Thus far, this chapter has provided an overview of the motorcycle industry in Vietnam and the constraints that are holding back the process of industrial upgrading and capability-building of the industry. In the next several sections this chapter examines two case studies of the Vietnamese government’s efforts to generate technological catch-up and to allocate learning rents that decisively changed the dynamic of the motorcycle industry over the past decade. The first case study assesses the emergence and the failure of learning rents in the first period of the industry’s development. The second case study reviews the transformation of the industry since Chinese motorcycles penetrated the Vietnamese market. It looks at the learning effects of this transformation and how Vietnamese enterprises went from being local assemblers to parts suppliers for foreign firms. The objective is to assess how the three factors of rent management—political, institutional, and industry organisation—impacted the structure of incentives and pressure to ensure effort for learning, upgrading, and innovation in the motorcycle industry.

## 6.4. Case Study 1: The Failure of Learning Rents (1995–2000)

### 6.4.1. DRMA Step 1 – Rents and Incentives Created by Rents

In the mid-1990s, in the course of efforts to enhance industrialisation, the Vietnamese government chose the motorcycle industry as its champion for Vietnam's industrial development. It launched an import substitution policy that erected trade barriers and provided incentives to attract FDI, in particular Japanese and Taiwanese TNCs in the motorcycle industry (Fujita, 2007). The major purpose of this policy was to enhance learning-by-doing as well as transfer technology in assembly and parts manufacturing into Vietnam's infant industry. The Vietnamese government used, among other actions, tax breaks, the provision of subsidized land, the protection of intellectual property rights, tariff protection against imports of fully assembled motorcycles to create rents for foreign investors who invested in Vietnam (interviews with MoIT officials and industry experts).<sup>93</sup> This policy, in effect, allocated a variety of *learning rents* because the intention was to use these rents to increase skills, training, and technology in the domestic motorcycle industry.

Attracted by the large and growing market, several foreign motorcycle manufacturers, particularly Japanese companies, began importing CBUs, CKD motorcycles and incomplete knockdown motorcycles, new and used—from their countries, Thailand, or Indonesia. The *incentive* created by the rents was to enter the Vietnamese market so as to extract profits in the absence of domestic competition. By 1999, 63.1 per cent of motorcycles sold in Vietnam were made by Honda, and 43.6 per cent were Honda's imported motorcycles (Ministry of Industry and Trade, 2007). That is,

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<sup>93</sup> Official data for these subsidies is not available.

69 per cent<sup>94</sup> of motorcycles sold by Honda in Vietnam in 1999 were imported from abroad.<sup>95</sup> As an additional illustration, Table 6.5 provides the percentage of import values between 2000 and 2005 from CBUs made outside of Vietnam. In 2000, 95.45 per cent of the total imported value was from CBUs, while separate parts accounted for only 4.45 per cent of imported value. This table illustrates that the highest number of imported items prior to 2001 were largely new and used CKD motorcycles.

**Table 6.5: Import Value of CBU and Parts (by per cent), 2000 to 2005**

Year	2000	2001	2002	2003	2004	2005
CBU	95.45	88.16	64.17	27.98	0	0.23
Separate parts	4.45	6.76	31.63	55.54	87.9	86.5

*Source:* MoIT (2007). CBUs means motorcycles fully assembled abroad and are imported as a complete unit. However, in the context that Vietnam prohibited imports of CBUs between from 1998 to 2003 (Intarakumnerd & Fujita, 2008) and from my interviews, it is highly likely that MoIT data implies both CKD units and CBUs.

The foreign manufacturers (the lead-firms) could produce their own parts or source parts from domestic or foreign suppliers (Nguyen, 2005). With the number of reputable foreign lead firms in Vietnam, a number of foreign part suppliers followed the lead firms to Vietnam so as to provide high quality parts. Because of this, foreign investors were able to overcome the Vietnamese government's requirement for localisation yet did not have to collaborate with local suppliers for parts. Despite high tariffs imposed on foreign motorcycles, new and second-hand motorcycles, Japanese

<sup>94</sup>  $43.6 / 63.1 = 69$  per cent

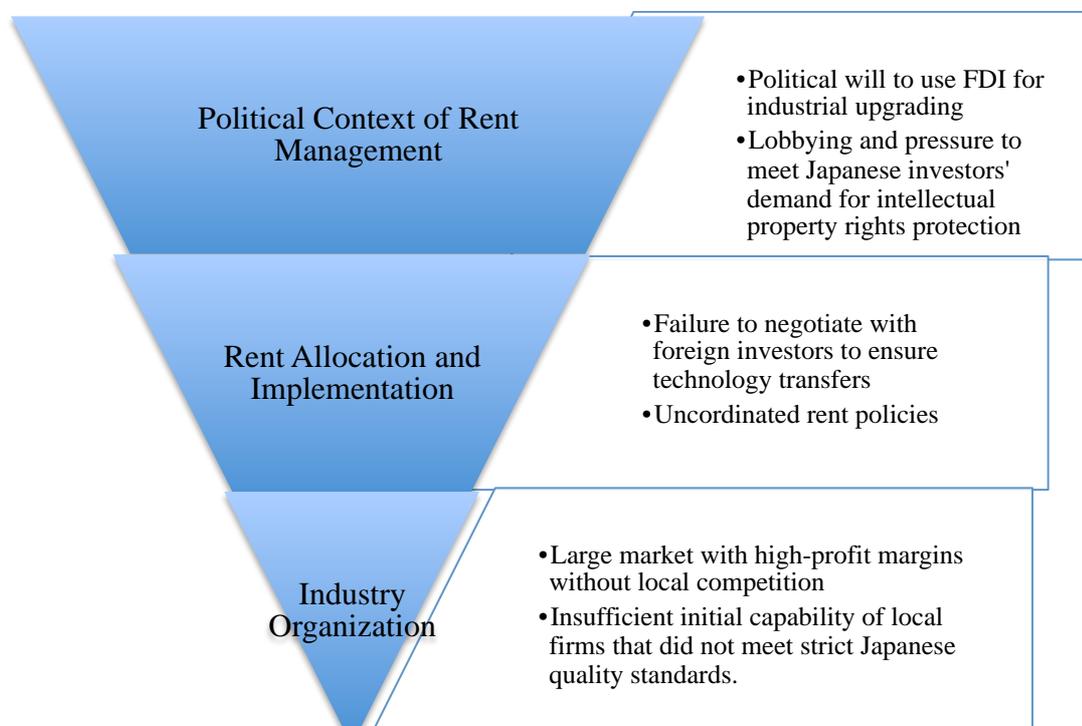
<sup>95</sup> MoIT (2007) data did not specify whether these motorcycles were imported as CBUs or CKD units.

brands in particular, were imported into Vietnam throughout this five-year period (Intarakumnerd & Fujita, 2008). In an oligopolistic market occupied solely by foreign firms and suppliers, foreign motorcycle producers were able to set high prices despite the import tariffs, which enabled them to enjoy substantial profits (Mishima, 2005b).

#### 6.4.2. RMM Level 1 – The Political Context of Rent Creation and Management (1995–2000)

Step 3 of the DRMA framework assesses the configuration of rent management of this case study based on three levels of rent management analysis. Figure 6.3 briefly summarizes the discussions in section 6.4.2, 6.4.3 and 6.4.4.

**Figure 6.3: Rent Management Mechanism during the 1995-2000 Period**



The highest level of rent management analysis—the political context, in this case—had two relevant characteristics. First, the Vietnamese government was interested in attracting FDI so as to take advantage of foreign capital, expertise and technology as explained above. Second, Japanese manufacturers (particularly Honda, Suzuki, and Yamaha) were successful in lobbying the Vietnamese government—the prime minister and the MoIT—to implement policies that served their economic interests, including the enforcement of intellectual property rights. An interviewee who worked inside the MoIT confirmed that between 2000 and 2005, Japanese investors had significant leverage to negotiate the terms of their investment in Vietnam,<sup>96</sup> and were also skilfully supported by the Japanese government through agencies such as the embassy and Japan International Cooperation Agency, as well as their own manufacturing association. To prevent local firms from imitating, adopting and adapting Japanese motorcycle models and technologies, Japanese investors requested that the Vietnamese government implement tighter controls over intellectual property rights. These investors argued that the Vietnamese government’s commitment to the protection of property rights would encourage more Japanese investors into Vietnam. The Vietnamese government obliged.

In essence, the political context, which set the policy agenda, was driven by two parallel though somewhat contradictory forces: to upgrade the domestic industry using FDI, and meeting Japanese investors’ demands as conditions for their investment in the Vietnamese market. Perhaps the coordination failure seen in this period (see section 6.3.3) was partly due to the Vietnamese government’s attempts to compromise in order to achieve both of these goals.

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<sup>96</sup> My interviewee explained that Taiwanese investors did not have as much negotiating power given the smaller size of their manufacturing investments. In addition, Japanese brands were much more popular in Vietnam and thus the market demand for Japanese-made motorcycles was considerable.

### **6.4.3. RMM Level 2 – Policy Mechanisms for Rent Implementation in the First Period**

At the institutional level, a major problem lay in the processes used to negotiate licenses with Japanese investors. The delivery of significant technology transfer was not a part of the negotiation for a license, in spite of the Vietnamese government's intention of using FDI for the industrial development of the industry. I asked two interviewees who each worked at the MoIT about this failure. One pointed out that in the late 1990s, Vietnamese government officials were inexperienced in negotiating with foreign investors, including not understanding how to negotiate specific conditions for technology transfers. Instead, as they looked to the Asian Tigers for lessons, they thought the local content policy and import restrictions on motorcycle parts would be sufficient to enforce technical spillovers from FDI. However, the Vietnamese context was different from the Asian Tigers as, after the 1970s and 1980s, Japanese investors were much more cautious in sharing their expertise in production operation and management (interview, 2011 and 2012).<sup>97</sup> Therefore, the rent management mechanism at the institutional level—MoIT's direct negotiation with FDI for technology transfer—failed to create either pressures or incentives for technology diffusion, as intended by the rent-creating policies.

The second institutional failure was the Vietnamese government's inability to coordinate its rent policies in line with its development agenda, as discussed in section 6.3.3. In essence, at the institutional level, government policies and policy mechanisms failed to create either pressures or incentives for foreign lead firms and suppliers to diffuse technology by collaborating with local suppliers.

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<sup>97</sup> As an alternative to using local suppliers, they used Japanese suppliers and partners or set up in-house production in Vietnam.

#### **6.4.4. RMM Level 3 – Organisation of the Motorcycle Industry (1995–2000)**

Three aspects of the organization of the industry had damaging consequences for the structure of incentives and pressures for learning efforts. The first was that the market competition was such that foreign firms had a financial incentive to exploit market profits but lacked the motivation and pressure to collaborate with local suppliers. In the late 1990s, there were no Vietnamese-brand motorcycles, and Japanese motorcycles were in great demand among Vietnamese consumers given their reputation for quality and durability. As the Vietnamese population and economy grew, the demand for motorcycles increased, so foreign manufacturers, particularly the Japanese, benefited from a substantial market with high potential profits. Honda, Suzuki, and Yamaha did not engage in price competition in the Vietnamese market, and the market was large enough so that competition with the Taiwanese SYM had negligible effects on price. The absence of domestic competition meant there was insufficient pressure on foreign investors to reduce costs or to source components from local suppliers.

The second failure in rent management within the industry was the failure to renegotiate Japanese investors' strict criteria for collaboration with local suppliers and the local supplier's weak initial capability to match the required Japanese standards. In the late 1990s, there were a number of local small-scale firms and even households engaged in the production of replacement parts, such as pistons, piston rings, cylinders, gaskets, crankshafts, valves and sprockets. Some of these producers had been making machinery parts since the government's central planning period (before 1986), and others had entered in the late 1980s as the demand for motorcycle parts increased (Fujita, 2007). However, a Japanese senior expert from a research think-tank in Hanoi was quite vocal in an interview that Vietnamese firms were not sufficiently competent to learn and

adapt to sophisticated Japanese technology or to meet foreign lead firms and suppliers' strict operations and quality standards. He said that Vietnamese workers were not disciplined or organised enough to understand the high-level technical training from Japanese firms, and until Vietnamese suppliers could meet the standards of production, it would be difficult to gain collaboration with Japanese lead firms and suppliers based in Vietnam. The expert also pointed to unstable market conditions caused by policy failures of the Vietnamese government in the late 1990s and early 2000s (see section 6.3.3). He asserted that the unstable policy environment during this period deterred Japanese investors from deepening their investment in Vietnam.<sup>98</sup>

This argument, however, is flawed in that Japanese investors failed to acknowledge that the rents provided to them through various protections and incentives were, in fact, instruments to encourage the very transfer of this technology and expertise. In reality, these rents were not intended to guarantee high profits for Japanese investors in Vietnam, but to give them the necessary subsidies for transferring technology and providing in-house training to local suppliers of parts. Without this motivation on the part of the Vietnamese government, Japanese investors would not have obtained business licenses in Vietnam to make substantial profits from the mid- to late 1990s and again from 2005 onward. However, Japanese manufacturers did not perceive the need for any systematic technology transfer to local suppliers. Nguyen (2006) pointed out that, for example, Honda did not develop any specific business model in the Vietnamese market in the first period. It simply started out as a plant assembling imported CKD units and manufacturing some in-house components to take advantage of high Vietnamese demand for Japanese motorcycles before gradually adding more value-added activities.

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<sup>98</sup> This observation only applies to this period. In the third phase, Honda has been more assertive in its investment and training of suppliers in Vietnam.

Thus, the organisation of the industry and the conditions of policy interaction with the government were such that there was insufficient market competition or policy pressure on foreign investors to collaborate with local suppliers and to transfer technology and expertise to local firms. A more significant pace of technology transfer would have required that foreign investor's were put under greater and more credible pressure from government to either lower their initial standards requirements or, higher initial capabilities of local firms to ensure greater use of Vietnamese suppliers based on cost considerations. In reality, the rent management factors failed to be value enhancing for the motorcycle industry in the first period.

#### **6.4.5. DRMA Step 4 – Rent Outcomes from the 1995 – 2000 Period**

From 1995 to 2000, Vietnam failed to achieve significant technology transfers from Japanese investors to local suppliers. Although there were numerous local firms engaged in the production of “aftermarket,” otherwise known as replacement parts, these firms were largely outside the procurement networks of foreign lead firms. In 1998, Japanese manufacturers took nearly 75 per cent of the market in Vietnam (Intarakumnerd & Fujita, 2008) but little if any technology diffusion and learning took place. As a result, only a few local suppliers, mostly SOEs, became Japanese part suppliers for simple, low technology components.

Table 6.6 presents the percentage of local suppliers that participated in the procurement chain for Japanese manufacturers. As recently as 2006 local suppliers played only a minimal role in complex component manufacturing for foreign lead firms, even though the required localisation ratio was extremely high, 60 per cent in 2001. For example, Vietnamese firms provided only 5.4 per cent of engine parts, 9 per cent of

electrical parts, 10.7 per cent of body parts, and zero per cent of exhaust systems. The table illustrates that although the localisation ratio was high, the diffusion of technology remained limited.

**Table 6.6: Part Procurement Structure of Japanese Motorcycle Firms, 2006**

Parts	In-house %	Domestic purchase %				Imports %					
		JP	TW	VN	Other	JP	TH	Indo	Mal	TW	Other
Engine	6.3	14.3	16.1	<b>5.4</b>	0.0	2.7	47.3	4.5	1.8	0.9	0.9
Exhaust	0.0	50.0	50.0	<b>0.0</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Body	0.8	32.0	44.3	<b>9.0</b>	9.0	0.0	3.3	0.0	0.0	0.8	0.8
Electric	0.0	75.0	7.1	<b>10.7</b>	3.6	0.0	0.0	3.6	0.0	0.0	0.0
Others	0.0	15.2	24.2	<b>36.4</b>	0.0	12.1	6.1	3.0	0.0	0.0	3.0

*Source:* Ministry of Industry and Trade (2007). Abbreviations: JP = Japan, TW = Taiwan,

VN = Vietnam, TH = Thailand, Indo = Indonesia, Mal: Malaysia. The MoIT does not specify what ‘Other’ means.

#### **6.4.6. Concluding Thoughts on the 1995 – 2000 Period**

In the first period of the motorbike industry’s development (1995–2000), the Vietnamese government created learning opportunities for Vietnamese firms by attracting MNCs, mostly via tax breaks, the provision of subsidized land, the protection of intellectual property rights, tariff protection against imports of fully assembled motorcycles and other subsidies. In doing so, the government hoped to encourage the MNCs to provide technology and expertise to Vietnamese suppliers. But this did not happen, since foreign firms either used imported components, in-house parts production, or parts from other foreign suppliers located in Vietnam. This was especially true of the Japanese manufacturers, who were the major players in the industry. The absence of

technology transfer not only defeated the initial purpose of the rents given to MNCs, but also allowed Japanese TNCs to capture Vietnamese market shares without integrating local firms into their supplier networks. The Vietnamese government’s rent strategy, therefore, was largely unsuccessful. Table 6.7 provides a summary of the first case study.

**Table 6.7: DRMA Summary of the Motorcycle Industry’s First Period and Failure of Learning Rents**

<b>Players</b>	<b>Type of rents</b>	<b>Incentives created by the rent</b>	<b>Factors affecting rent management mechanism</b>	<b>Outcome</b>
Foreign investors, Local firms	- Rents for foreign firms producing in Vietnam, tax breaks, subsidized land and protection of intellectual property	- Intention was to create incentives to transfer technology the local suppliers but foreign investors’ dominant incentive was simply to expand production in the Vietnamese market to capture high profits in the absence of local competition	<p><u>First level:</u> (1) political will to bring in FDI to introduce new technology, (2) Pressure to meet Japanese investors' demands, especially concerning protection of intellectual property rights</p> <p><u>Second level:</u> (1) failure to negotiate with and pressure foreign investors to transfer technology and “know-how”, (2) uncoordinated rent policies</p> <p><u>Third level:</u> (1) large market but without local competition, (2) Low initial capabilities of local firms could not meet Japanese standards</p>	-Rapid growth in domestic production by foreign producers -Slow local upgrading and learning

In analysing this phenomenon, the DRMA points out that at each level of rent management—from the political context of rent management, to the policy structure of implementation, to the organisation of the industry—there were a number of factors that contributed to the unsatisfactory outcomes. At the political level, there was strong and

clear political will to promote FDI and technical learning for local firms through a number of policy measures. However, influential Japanese firms were able to effectively lobby to define conditions for their entry to the Vietnamese market that undermined pressures for technology transfer. At the institutional level, the government failed to negotiate specific conditions of technology transfer and technical training as the rent policy intended, and there were also a number of coordination failures in implementing the rent policies. Lastly, insufficient market competition and strict Japanese quality criteria for collaborating with local suppliers created little incentive and pressure for foreign–local partnership and cooperation. The outcome was a period of rent extraction where foreign motorcycle makers successfully reaped large profits and gained nearly all of the Vietnamese market.

### **6.5. Case Study 2: The China Shock (2001–2004)**

In the late 1990s, given the large potential market in Vietnam and the stockpile of cheap motorcycles in the Chinese market, private business interests in China and Vietnam found an enormous opportunity to make considerable profits in the low-cost motorcycle segment in Vietnam. Starting in 1998, Chinese-made CKD motorcycles were legally and illegally imported into Vietnam. The illegal imports were done through borders between the two countries. Chinese and Vietnamese assemblers falsely claimed to have the correct percentage of local content so as to evade the taxes imposed by the Vietnamese government’s local content requirement (Intarakumnerd & Fujita, 2008). Because Chinese motorcycles were sold at a much cheaper price than others in the Vietnamese market, Chinese and Vietnamese assemblers quickly captured a large share of the Vietnamese market. At the same time, there was surge in the number of local

firms—up to 51 local firms—to assemble motorcycles for imported Chinese CKD units and to provide parts for Chinese lead firms (Mishima, 2005b).

The impact of these Chinese motorcycles was enormous. They lowered the price of motorcycles from VND 28 million (USD 1,321) in the period before 2000 to around VND 10 million (USD 472) in 2000, and then to VND 6.3 million (USD 297) in 2001 (Fujita, 2007). As a result, by 2001 Chinese–Vietnamese motorcycle firms had captured 80.5 per cent of the market. Fujita (2007) refers to this phenomenon as the “China shock.” Additionally, in 2000, Vietnam had come to the end of the first stage of localisation, as described by Mishima (2005b) (see Table 6.3) by assembling knockdown vehicles from abroad. It entered the second stage, in which more parts began to be produced in-house<sup>99</sup> by foreign investors. At this stage, any technological transfer was still relatively limited and largely consisted of assembling imported motorcycles and manufacturing basic low-value added components.

In Table 6.8, the market share of Chinese–Vietnamese enterprises are grouped together in “Chinese & local firms” categories.<sup>100</sup> According to the data, the market share for this group jumped from 23.8 per cent to 75.2 per cent in 2000, and to 80.5 per cent in 2001. This tripling clearly shows the effect of market penetration by Chinese imported motorbikes, which transformed the learning processes of local firms. It should be noted, however, that the market share for this group dropped to 35.7 per cent in 2005. At the time of my fieldwork in 2011, Chinese and Vietnamese motorcycle firms shrank to roughly 10 per cent of the market share (Quoc-Hung, 2012a).

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<sup>99</sup> Most components were imported in the pre 2000 period.

<sup>100</sup> This is due to most Chinese companies refusing to take part in a government survey and interviews.

**Table 6.8: Market Share by Assembler**

Year	1998	1999	2000	2001	2002	2003	2004	2005
<b>Total sales</b> (In thousand)	302	475	1,686	1,983	2,058	1,280	1,437	1,641
<b>Market Share (in per cent)</b>								
Honda*	67.2	63.1	19.4	11.9	19.4	33.3	35.7	36.9
Chinese & local firms	13.5	23.8	75.2	80.5	65.1	37.8	29.6	35.7
Suzuki	7.2	3.6	1.0	1.4	2.2	4.0	4.9	4.1
VMEP (SYM)	11.7	4.2	2.3	3.3	7.4	13.6	15.6	7.5
Scooter CBU	0.4	2.5	1.1	1.7	3.4	3.7	1.0	2.7

*Source:* Adapted from Ministry of Industry and Trade (2007). \*Market share includes sales of motorcycles from both Honda Vietnam and imported Honda brand from abroad.

The penetration of Chinese manufacturers into Vietnam's motorcycle industry established the Chinese suppliers' network in Vietnam and disturbed the established rent-seeking relationships between Japanese MNCs and the Vietnamese government. The new suppliers' network, led by newly emergent local firms, provided the needed learning and production capacity for Vietnamese firms and parts suppliers. This phenomenon marked Vietnamese suppliers' entry into the second stage of localisation described by Mishima (2005b). Chinese motorcycles used simpler technologies than Japanese ones and Chinese lead firms were less demanding about the quality standards of Vietnamese parts suppliers. Using the developmental rent management analysis, this case study assesses some important transformations in the industrial organisation and in the Japanese value chain during the China shock period. It explains how learning and know-how was transferred to local suppliers via Chinese firms, which enhanced the industrial capabilities of local firms.

### **6.5.1. DRMA Step 1 and 2 – Rent and Incentives Created by the Rents**

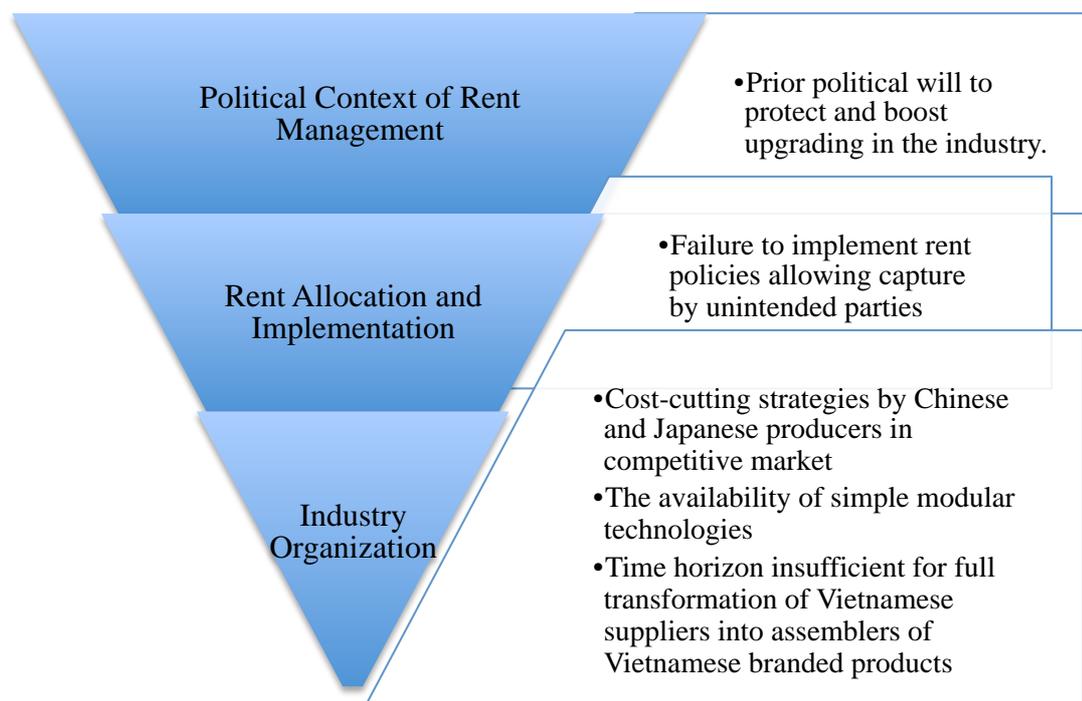
Starting in 1998, the government maintained three types of policy interventions that provided potential learning rents for local firms: the imposition of local content requirements, tariffs for imported components and prohibitions on the import of CBUs. These policies were distinguishable from policies in the previous period, which largely aimed to attract foreign investors to invest in Vietnam. One effect of prohibiting CBUs was an increase of imports of CKD units later assembled by local firms in Vietnam. These policies were meant to pressure foreign suppliers and firms to use local materials and parts and to collaborate with local suppliers. However, the Vietnamese government had weak analytical and enforcement capacities so the policies were not optimally designed or implemented. Given this context, Chinese and Vietnamese firms were provided with the *incentive* to capture the low-cost market segment. Due to the high cost of foreign motorcycles at the time, this market segment was largely unexplored by Japanese and Taiwanese firms. The policies also put pressure on Japanese firms to increase their local content ratio in Vietnam.

#### **6.5.2. RMM Level 1 and 2 – Political Context of Rent Creation and the Institutional Structure of Rent Implementation**

At the first level of rent management analysis (see Figure 6.4), the rent policies discussed in step 1 of the DRMA framework reflected the Vietnamese government's political will to create learning rents for local firms in order to boost technical learning and industrial upgrading in the industry. However, at the institutional level of rent management analysis, the rent policies failed due to the lack of enforcement (Fujita, 2007). This failure allowed local and Chinese assemblers to lie about the percentage of local content in Chinese motorcycles and captured the benefits of rents not meant for

them. In essence, the China Shock was an accident because it was unintended by the Vietnamese government. Nonetheless, it resulted in rent capture by Chinese and Vietnamese assemblers, as well as unintended and important technology transfers that boosted competition in the market and technical learning among local suppliers and firms.

**Figure 6.4: Rent Management Mechanism during the China Shock Period**



Fujita (2007) points out that if the local content policy had been strictly enforced, Chinese manufacturers would not have succeeded in penetrating the Vietnamese market. She notes that during the China shock period, there was virtually no local content in imported Chinese motorbikes (Fujita, 2007), and thus they should have been subjected to high import tariffs. In reality, the Chinese firms evaded tariff rates by lying to the Vietnamese authorities or by involving rent-sharing arrangements with locals. Two Vietnamese interviewees, who worked as local assemblers during this period, told me

that, to justify their claims on local contents, they imported second-hand machines from China, but never actually produced the components on their own. The machines were largely to falsify tax audits about the local content materials in Chinese motorbikes, which they assembled in Vietnam. As a result of the government's failure to implement rent-created policies, Chinese lead firms and Vietnamese assemblers captured the rents originally meant to stimulate the transfer of technology from the lead firms to local suppliers.

### **6.5.3. RMM Level 3 – Industry Organisation during the China Shock**

At the third level of the rent management analysis, there are three important rent management factors that were at work as demonstrated in Figure 6.4 above: (1) the introduction of simpler technology that were more closely matched to the initial capabilities of potential local firms leading to more successful learning efforts and technological adoption, (2) greater market competition, which induced the transformation of the foreign procurement network, but (3) the time horizon was too short as the incentives for the expansion of the Chinese motorcycle supply chain were based on informal arrangements that could not be formalized, and this cut short the learning period available to new local firms.

#### **6.5.3.1. Type of technology and local firms' ability to upgrade**

The first important rent management factor was the import of Chinese technologies into Vietnam that were more closely matched to the initial technical, organizational and learning capabilities of local assemblers and suppliers. Prior to the

China shock period, there was no clear distinction between a handful of local firms, which had insufficient financial resources and capabilities necessary for incorporation into the Japanese and Taiwanese value chains (Mishima, 2005b). The China shock inadvertently created a huge demand for standardised parts for Chinese motorcycles, raising the demand for low-cost suppliers. This prompted local firms that had previously produced replacement parts, as well as firms engaged in related industries, to enter into the production of motorcycle parts, first by collaborating with Chinese firms (Fujita, 2007).

Starting in the late 1990s, Chinese lead firms started producing copies (in the form of knockdown motorcycles imported from China) of slightly modified versions of Japanese models and Vietnamese suppliers rapidly began to produce components and parts for these motorcycles. There was thus an increased demand for local suppliers to supply components for Chinese motorcycles. Initially, the Chinese components were mostly general in the sense that they were not customised to specific models, and they closely resembled the Chinese modular system in component production—one component could be used for a number of different Chinese knockdown models. In addition, neither the Vietnamese nor the Chinese assembly firms demanded strict quality or delivery requirements from their suppliers, so exchanges of complex information between lead firms and suppliers were not needed (interview, 2011). This type of production process in the Vietnamese market is referred to as the local Chinese chain.<sup>101</sup>

The relaxed quality standards of the Chinese lead firms allowed imitation and copying to happen across the board as entry barriers and financing requirements were low. In addition to assembling Chinese CKD and incomplete knockdown motorcycles,

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<sup>101</sup> Fujita (2007) reported that in many cases, firms registered as “assemblers” turned out to be traders without production lines. Instead of assembling the parts themselves, they subcontracted the assembly to other local firms.

more local firms participated in learning simple technology to manufacture components for Chinese lead firms. The second stage of localisation, once realised, began to spread widely to local enterprises in the industry.

By 2001, given the drastic increase in market shares, some local assemblers started to produce some parts in-house and to source other parts from Taiwanese, Chinese, and local suppliers based in Vietnam<sup>102</sup> (Fujita, 2007). In-house production of parts was often achieved in collaboration with foreign, mainly Chinese, firms (Fujita, 2007). Among the five local firms surveyed by Fujita in 2005, three firms revealed that the source of their technology for the production of motorcycles and core components was China. Two firms also listed Korea and Taiwan as additional sources. The local factory with the largest market share among local assemblers had a joint venture with a Chinese firm for the mass production of motorcycle parts (Fujita, 2007).

Data from my fieldwork in 2011 confirmed that the extensive collaboration between Vietnamese and Chinese firms was largely due to the ease of imitating Chinese technology through local learning as well as the low quality requirements that allowed local suppliers to participate in the production chain. Two of the three business owners that I interviewed also said that they sourced component manufacturing to local suppliers despite the fact that they owned factories that could also produce the parts. Moreover, these interviewees said that it was much easier to collaborate with Chinese firms than the Japanese counterparts because Honda and other foreign firms were not using them.

It should be noted that the collaborative relationships of Japanese and Chinese firms with local suppliers are distinctively different from one another. Unlike Japanese–Vietnamese supplier relationships, which were stable and fairly permanent, the lead firm–supplier relationship in the local Chinese value chains were largely based on price,

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<sup>102</sup> Some local firms even achieved a local content ratio of 90 per cent, while the average was 63 per cent, in 2003 (Van-Nam, 2012).

and market demand and it involved temporary transactions in which the suppliers produced products as they received orders. This was possible because the parts used by Chinese and local assemblers were standardised and were based on the same modular characteristics. These arrangements were also due to the lack of capabilities and resources among the Chinese and Vietnamese assemblers to monitor the product quality of their part suppliers (Fujita, 2008). In making orders, Chinese and local assemblers provided samples without detailed specifications or drawings, unlike the case with Japanese lead firms and first-tier suppliers who would supply detailed specifications of their components. Chinese and local assemblers also frequently switched suppliers based on prices rather than assisting in improving the quality of the products because they did not have the technical capacities to assist the suppliers (Fujita, 2007). Again, this is in contrast to the Japanese assembler–supplier relationship.

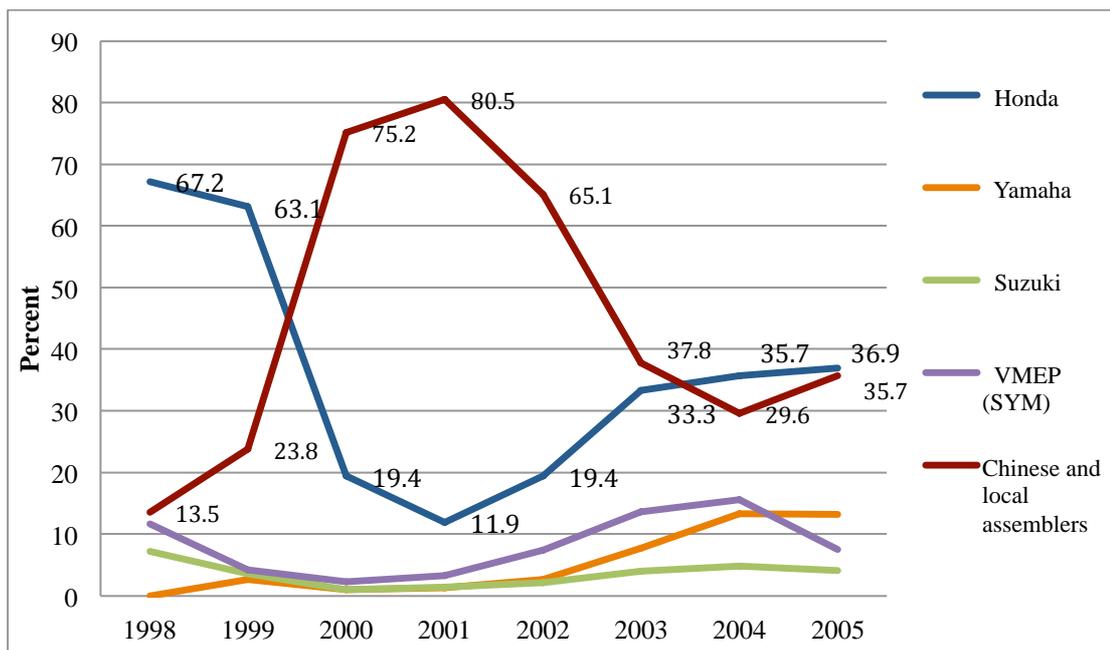
#### **6.5.3.2. Market competition: Transformation of the Japanese production chain**

In 2002, Japanese firms, seeing their market share significantly diminished, made serious attempts to recapture the market. Consequently, the Japanese production chains underwent a significant transformation, as the local Chinese chains started to take on a clearer shape (Fujita, 2007). There were three important factors underlying the transformations within the Japanese chains. First was the government's local content policy, which was originally introduced at the end of 1998 but came into effect at the beginning of 2001. Second, there was the necessity to reduce production costs in order to compete with the Chinese motorcycles assembled in Vietnam. Third, Japanese investors realised the profit potential in the low-cost motorbike market, which motivated them to

increase the volume of production in these lines. All of these factors encouraged an increased use of locally sourced parts from local suppliers.

In consequence, in 2002, Honda launched its first low-cost motorcycle model, the Wave Alpha, which was priced at VND 10.8 million (USD 510), which was nearly one-third of the cost of its previous models and only slightly more expensive than Chinese motorcycles. The Wave Alpha immediately attracted large Vietnamese consumers and was favoured by local buyers for its affordable price and higher quality over Chinese motorcycles. Honda's reputation for reliability and durability boosted consumers' confidence in choosing the Wave Alpha model over Chinese motorcycles. Figure 6.5 demonstrates that not only did the Wave Alpha expand Honda's market share, it also allowed Honda to regain a large portion of the market share in the industry, from 11.9 per cent in 2001 to 36.9 in 2005. This success continued into early 2010s. In 2011, Honda's market share was more than 61 per cent (Quoc-Hung, 2012b). In Figure 6.5 we can see that both Honda and Chinese firms experienced drastic fluctuations in their market position between 1999 and the beginning of 2003.

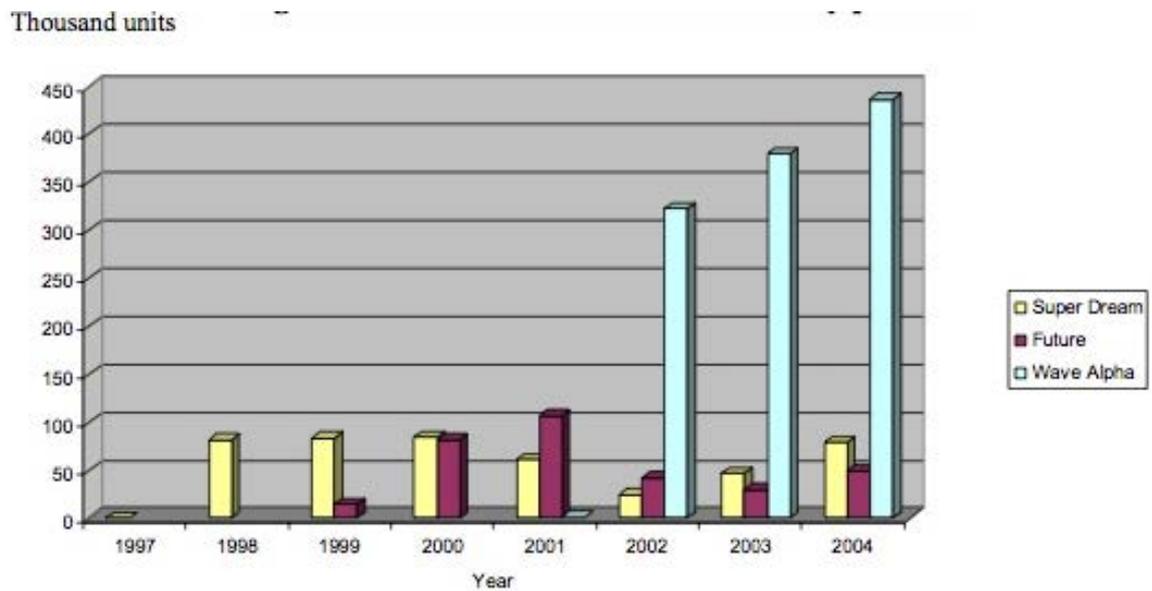
**Figure 6.5: Market Share of Major Firms During the China Shock (2001-2005)**



*Source:* Author's adaptation from data provided by the Ministry of Industry and Trade (2007)

Honda's success with the Wave Alpha in comparison with its two most popular predecessors, Super Dream and Future, could be traced in Figure 6.6. Both of these models had been Honda's most popular models in Vietnam before the introduction of Wave Alpha.

**Figure 6.6: Wave Alpha versus Super Dream and Future**



*Source:* Nguyen (2006, p. 5)

In developing the new low-priced Wave Alpha, Honda imposed substantial cost reduction targets and announced that it was ready to switch suppliers provided that the alternative suppliers met the required standards and their costs were lower than those of the existing ones, regardless of nationality (Nguyen, 2006). Consequently, the structure of the Japanese production chain changed as the number of local suppliers increased.

The first-tier suppliers initially responded to Honda's pressure for cost reduction by replacing imported parts with parts produced by Japanese second-tier suppliers in Vietnam, and eventually by replacing those with parts sourced from Taiwanese or local second-tier suppliers (Ohara & Sato, 2008). In her survey in 2004 and 2005, Fujita (2008) interviewed six first-tier suppliers from Japan, Taiwan, and Korea. These suppliers used a total of 162 second-tier suppliers, at least 106 of which were Vietnamese firms. This drastic transformation marked the industry's entry into its third stage of localisation, in accordance with Mishima's framework, and it constituted a significant step in technological upgrading by local suppliers (see Table 6.3).

In addition to enhancing local learning based on less stringent production management, increased competition during the China shock period also transformed Japanese manufacturing production chains and created new opportunities for Vietnamese suppliers to participate in the production of motorcycle components for Japanese and Taiwanese manufacturers. Here, the competition for market share among Japanese and Chinese firms was the second important rent management factor affecting the allocation of rents and it provided important incentives and opportunities for local suppliers to enter the Japanese production chain, boosting their technical learning to reach the next level of technology adoption.

#### **6.5.3.3. The Negative Impact of an Inadequate Time Horizon**

An interviewee who was a local assembler at the time told me that in 2002 the Vietnamese government finally started to enforce its local content policy and to audit alleged fraudulent cases from previous years, which stopped a number of local assemblers from production as they could not get access to import quotas for motorcycle parts. The same interviewee told me that the audit lasted for more than a year, and that during this timeframe those being audited were not allowed to import parts from China.

By this time, Japanese investors were aggressively trying to recapture the market with new low-cost models, such as the Wave Alpha. Many Vietnamese assemblers who were taking advantage of these opportunities by trying to achieve learning through active acquisition of technological capabilities in component production, branding, and distribution began to stumble when competing with powerful Japanese lead firms and first-tier suppliers (Fujita, 2007). The few local assemblers that performed well were the ones that pursued low prices by relying on Chinese counterparts for components instead

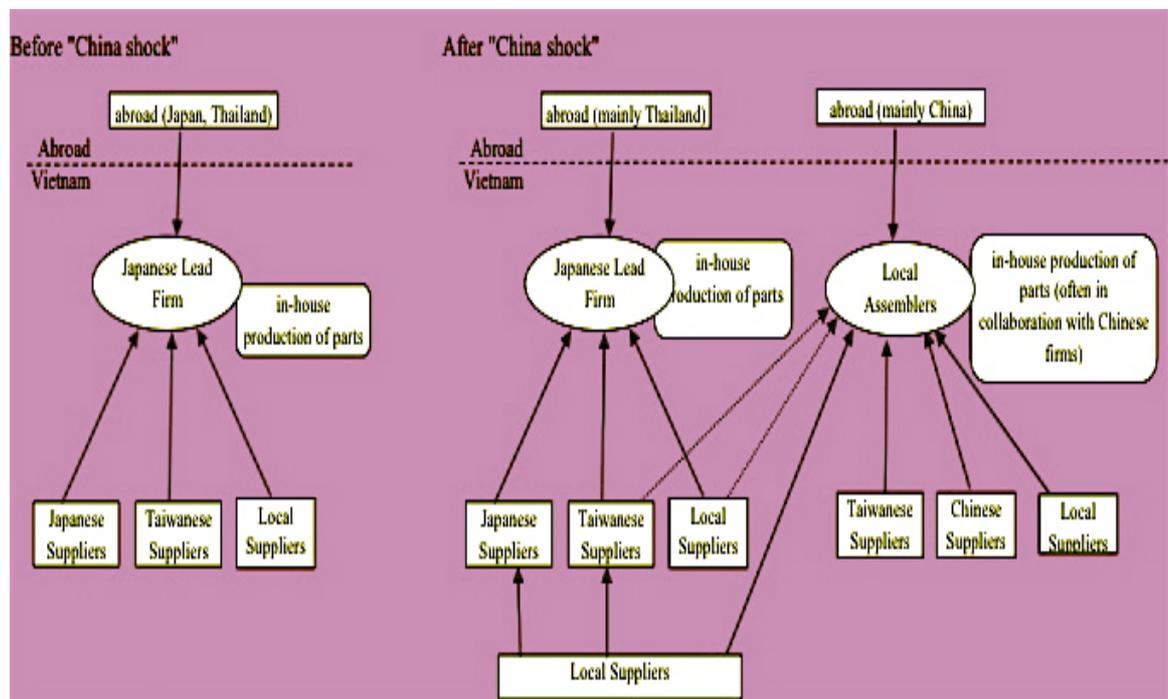
of producing them in-house. They were not interested in building either their own brand or distribution networks (Intarakumnerd & Fujita, 2008). The Vietnamese assemblers who did focus on building their own brands via technological adoption, such as Hoa Lam Company and Sufat Vietnam, faced tremendous difficulty in competing with foreign competitors as the conditions enabling them to engage in learning began to change. In my 2011 interviews, local business owners cited Sufat Vietnam as one of the local firms who has been pursuing the development of a branded Vietnamese motorcycle but it was struggling to compete with foreign firms and, at the time of the interview, was facing operating losses. Hoa Lam Company, as the other example, was forced to join a venture with the Taiwanese firm Kymko to avoid bankruptcy, and so Hoa Lam stopped production of its Vietnamese brand motorcycles – Halim – when it entered the joint venture (Quoc-Hung, 2012a).

In this case, the time horizon for learning was cut short, ironically because the Vietnamese government was enforcing its local content policy. This policy did not distinguish between Vietnamese and foreign owned companies operating in Vietnam and thus it did not provide local firms with any protection as they were developing their capability. Consequently, the enforcement of this policy did not allow time for the emergence of a new group of local firms and suppliers to rapidly learn and upgrade their capability, which was only possible by violating the strict letter of the domestic content law. The rapid decrease of local firms and suppliers, coupled with the re-emergence of Japanese and Taiwanese motorcycles in the market highlights our observation in Chapter 3 that an insufficient time horizon can destroy learning effort, in this case, by local assemblers who were beginning to compete with foreign lead firms.

#### **6.5.4. DRMA Step 4 – Outcomes: From Local Assemblers to Part Suppliers for Foreign Firms**

With the introduction of Honda's Wave Alpha and the Japanese cost-reduction strategy, some of the local suppliers in the Chinese chains were incorporated into the Japanese chains as first- and second-tier suppliers. This integration into Japanese production chains provided local suppliers additional upgrading that enabled mass production of parts in accordance with Japanese QCD standards. This is thanks to the Japanese firms exercising substantial control and supervision over their local suppliers (Fujita, 2007) by providing training in product management, quality assurance, and technical skills. Figure 6.7 illustrates how local suppliers took more active roles in the procurement network of Japanese, Chinese, and Taiwanese producers after the China shock period, and how this led to new learning and capacity development. Before the China shock, Japanese lead firms largely used components from Japanese and Taiwanese suppliers, along with a limited number of local suppliers. After the China shock, local Vietnamese firms emerged with their own production and supply chains to collaborate with Chinese firms; and local second-tier suppliers were able to supply components for foreign first-tier suppliers, which allowed for deeper integration and more technological adoption by local firms.

**Figure 6.7: The Transformation of Value Chains within Vietnam's Motorbike Industry**



*Source:* Fujita (2007, p. 15)

Fujita's field research in 2004 and 2005 involved case studies of six local suppliers who took part in different levels of procurement with Japanese lead firms. In the survey, there were two first-tier suppliers for Honda Vietnam, both of which were state-owned enterprises. These SOE suppliers first started their production of motorcycle components in 1998 and 1999, respectively. Like other SOEs, they were originally engaged in the integrated production of a wide variety of products but only in small quantities. Once they became first-tier suppliers, they began to specialise in products and production processes specifically designated by Honda (Fujita 2007). Fujita also surveyed two second-tier local suppliers for foreign firms. These companies originally manufactured replacement parts but started to supply components for local firms around 2000, and subsequently became second-tier suppliers for Japanese and Taiwanese firms.

These second-tier suppliers also came to specialise in specific production processes—one in plating and the other in die-casting—and both experienced a rapid expansion of production in 2005.

The last two suppliers interviewed by Fujita were suppliers to local firms. Unlike the four suppliers mentioned previously, these firms produced a wide variety of components and were engaged in various production processes. Their sales and production had expanded until 2002; however, at the time of Fujita's interview in 2005, both of these suppliers were facing drastic declines. Given the contraction in demand for Chinese motorcycles and parts, one supplier invested to improve one of its major products, valves, by acquiring technology, equipment, and training from abroad. The other supplier took no substantial action to compensate for the loss of sales (Fujita, 2007). My interviewees who were an assembler and a supplier during this period confirmed this data. They observed that, on the face of the decline in demand for Chinese motorcycles and components, some firms attempted to upgrade their capability to increase their competitiveness such as Sufat Vietnam, while other firms continued to pursue a cost-cutting approach or to do nothing.

#### **6.5.5. Final Remarks on the China Shock Period**

The period of the China shock, from 2001 until 2004 was particularly instructive for the learning process in the industry. In the first period of the industry's development (1995–2000), the learning rents provided to Japanese manufacturers for technology transfer largely failed, while in the second period (2001–2004) a configuration of a number of factors led to the emergence of local Chinese production value chains. This transformation was an implicit rent management story even though the rents were

creating incentives and opportunities for learning that were not the intended ones. A true learning experience was unleashed during the China shock period, which led to technical upgrading for Vietnamese firms but the conditions that allowed this to happen inadvertently changed as the government began enforcing domestic content requirements more effectively and Japanese firms changed their business strategy. Because learning is part imitation, Chinese technology, precisely because it was much less sophisticated than Japanese technology, was arguably more appropriate for the learning stage of development in Vietnam. This was particularly true given the low-skilled and inexperienced workforce and the lack of sufficient financial support from the government to acquire and transfer technology.

In summary, at the level of political will, there was clear support for the industrialization of the industry via a number of rent policies – localisation requirements, import tariffs, and prohibition of CBUs. At the institutional level, the Vietnamese government failed to implement these policies, which led to the emergence of the China shock. In reality, the rent management factors that actually motivated technical collaboration and adaptation came from the organisation of the industry, and a failure to enforce border controls against illegal Chinese imports (see chapter 5, case study 2). This resulted in an influx of Chinese producers and the setting up of new production chains where technology requirements for local parts suppliers were more appropriate to the initial capabilities of local firms. A number of dynamic local firms emerged because they had the appropriate initial learning capability. In addition, the market competition between Japanese and Chinese firms enforced a meaningful cost-cutting localization effort in the Chinese–Vietnamese supply chains and the Japanese supply chain. Table 6.9 provides a summary of the developmental rent management analysis of the China shock period.

**Table 6.9: DRMA Summary of the China Shock Period**

<b>Players</b>	<b>Type of rents</b>	<b>Incentives</b>	<b>Factors affecting rent-management mechanism</b>	<b>Outcome</b>
Foreign and local firms	- Rents based on local content requirements, import tariffs, and prohibition of CBU imports	- Cheap and low technology Chinese imports and large rents in domestic market create incentives and opportunities for Vietnamese suppliers to integrate into new Chinese value chains	<p><u>First level</u>: Political will to protect and boost upgrading in the industry</p> <p><u>Second</u>: Failure to implement rent policies and to enforce border controls required for the policies</p> <p><u>Third</u>: (1) The availability of simple modular technologies.                      - (2) Cost-cutting strategies by Chinese and Japanese producers in competitive market                      - (3) Time horizon insufficient for full transformation of Vietnamese suppliers into assemblers of Vietnamese branded products</p>	<p>- Some important though short-lived industrial upgrading for local firms</p> <p>- Transformation of Japanese production chain leads to participation of local suppliers to the lower-tier supplier network of foreign lead firms such as Honda</p>

The China shock experience highlights the importance of the right technology being available for adoption and the context, which defines the presence or absence of incentives for collaboration and learning to take place. Furthermore, technology transfers are rarely automatic and must be based on an appropriate set of incentives and pressures; in this case, market competition, mostly by Japanese manufacturers with Chinese firms. Next, interventions must consider the learning capability of the local firms and where they stand in the production chain with foreign investors. Finally, the accidental conjunctures that created the right conditions in the Vietnamese motorcycle industry also meant that these conditions were vulnerable and in fact they lasted for an insufficient time to achieve a thorough transformation of the industry. The beginning of the end

came with the government's ill-timed enforcement of local content policy, which cut short the learning process of a number of local assemblers and suppliers. Otherwise, it is probable that the local industry would have been in a stronger position to compete with foreign brands in the low-end market.

## **6.6. Demand Driven and FDI-led Market (Post-2004 Period)**

During the FDI-driven period of development, which began in 2004, the motorcycle industry experienced three major events: (1) an FDI-led growth period due to foreign firms recapturing the Vietnamese market, (2) the reduction of trade restrictions and administrative regulations to embrace FDI and principles of market liberalisation, and (3) the emergence of new policies aimed at promoting supporting industries. These major events subsequently rearranged the structure of the industry and the local Vietnamese firms. Consequently, the market was once again largely dominated by foreign brands while local firms became second-tier and first-tier suppliers for the foreign-lead firms.

### **6.6.1. FDI-Led Development**

After Honda and the other foreign manufacturers regained their market share, the industry experienced another FDI-led development period. The number of local firms shrank substantially as foreign manufacturers took over and expanded a large share of the market starting in 2004. As mentioned above, of the 51 Vietnamese firms surveyed by Fujita between 2001 and 2006, 35 left the industry, 16 continued motorcycle assembly, and 12 new firms entered the market (Fujita, 2010). Motorcycle production

continued to grow at a high rate as the market expanded considerably with Vietnam's overall growth. According to Fujita (2010), in 2000, these 51 local firms produced 1.37 million units, taking more than 80 per cent of the market share. However, changes in consumer preference for higher quality motorbikes, the launching of Honda's Wave Alpha, the enforcement of the local content rules, and new regulations requiring all motorcycle firms to produce certain key components in-house meant that between 2005 and 2008, the number of local firms declined between 30 and 40 per cent, with their production dropping to roughly 800,000 units per year (Fujita, 2010).

By 2011, this number dropped again to 380,000 motorbikes sold by local firms (Quoc-Hung, 2012a). In the same year, the top five foreign firms—Honda, Yamaha, Suzuki, SYM, and Piaggio—sold close to 90 per cent of the motorbikes bought in Vietnam<sup>103</sup> (Quoc-Hung, 2012a). In interviews I conducted in 2011 with two owners of local firms, they each confirmed that in the low-cost market segment, which targets rural and low-income consumers, they expected their market share to continue to diminish unless the government intervenes with supporting measures. One of my interviewees said that his firm is trying to find ways to become a Honda second-tier supplier but that his business lacks the capital to upgrade his equipment to Honda's standard.

The structure of domestic firms also changed during this FDI-led growth period. In contrast to 2001 when the majority of local firms were small, there was a rise of relatively large-scale firms in 2006. For instance, according to Fujita, in 2001 “more than half of the motorcycles sold were produced by assemblers producing fewer than 20,000 units of motorcycles per year” (Fujita, (2010, p. 9). However, towards the middle of the 2000s, production was concentrated on larger firms. For example, four firms produced more than 100,000 units in 2005 (Fujita, 2010).

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<sup>103</sup> Total motorcycle sales were 3.7 million units, of which the top five foreign firms together sold 3.32 million units.

### **6.6.2. Removal of Trade and Administrative Restrictions**

In the later part of the 2000s, the Vietnamese government made an attempt to gradually liberalise the economy in anticipation of Vietnam's accession to the WTO. To do this, the government removed prohibitions on motorcycle imports, repealed local content requirements, and reduced tariffs on imported components. Furthermore, regulations on motorcycle registrations were relaxed so that a driver could register more than one motorcycle under his name. In essence, the government's efforts to loosen the market using both trade and administrative policies, together with the introduction of a low-cost motorcycle produced by Honda and other foreign manufacturers, substantially expanded the market and boosted sales. In 2007 the industry's manufacturers sold 2.8 million units, a number far beyond sales during the China shock period. Likewise, in 2011, Vietnamese consumers purchased 3.7 million units, a 24 per cent increase in the market size compared to sales in 2011 (Quoc-Hung, 2012a).

### **6.6.3. Policy Frameworks to Promote Motorbike and Supporting Industries**

During the post-2004 period, the Vietnamese government moved towards developing a set of policies to help supporting industries. The two major policies were Decision No 34/2007-QD-BCN (Decision 34), introduced in 2007, and Decision 12 in 2011. Decision 34 was the master plan for the development of the supporting industries until 2010, though it does still provide a vision for the government until 2020. Based on the Decision, responsible ministries would subsequently devise policies and instruments to carry out the general master plan set out by the government. A report from the

Vietnam Development Forum (2011) points out that one of the major shortcomings of Decision 34 was that the scope of the government's definition for "supporting industries" was too broad. It encompassed nearly every part of the value chain from materials to marketing. For instance, it lumped the textile and garment industry with mechanical industries (such as electrical and electronics) and the automotive industry. This wide definition made it difficult to create targeted policies, for instance with a focus on technological adoption and industrial upgrading (Van-Nam, 2012). Given Vietnam's limited capabilities and resources, such a large scope did not help the government to tackle constraints in important sectors or help provide meaningful support for upgrading.

Decision 12, issued by the prime minister in 2011, provided a policy framework for developing supporting industries. It is considered to be the first official declaration by the Vietnamese government for promoting supporting industries, and local investors were particularly hopeful that it would offer meaningful assistance for certain important sectors. However, an industry expert at a research think tank and an official who worked at the Ministry of Industry and Trade, who were each interviewed during my 2011 fieldwork, pointed out that decision has failed to assisted local suppliers, who are financially weak and continue to lack the technical capability to upgrade. The director of a think tank inside the MoIT, who participated in drafting Decision 12, commented that the content of Decision 12 was too general and could not be effective, especially since this decision is embedded in other bodies of law with higher authority, such as the Enterprise Law (Decree No. 56/2009/ND-Cp and Decision No. 105/2009/QD-TTg)). This means that if there is a conflict, Decree 56 and Decision 105 trump the effects of Decision 12. In addition, this director pointed out that Decision 12 has only a few provisions that are intended to assist local businesses that go beyond the already-established government policies to support SMEs.

In summary, there have been major changes in the motorcycle industry since 2004, especially from policy and industry organisation standpoints. Institutionally, the government relaxed trade and administrative restrictions and that enhanced market demand for motorcycles. The result was a period of FDI-led growth in which foreign firms (including Chinese producers) captured up to 98 per cent of the market. In addition, local firms had to restructure their production organisations during this period, and a small number of local assemblers ended up producing the majority of local motorbikes while other local firms left the industry. Lastly, the Vietnamese government devised and implemented some assisting measures to aid supporting industries but these were overly broad and ineffective.

#### **6.7. The Success and Failure of Rent Management and Policy Options for a Developmental Rent Management Strategy**

Since the beginning of its industrialization in the mid 1990s, the motorcycle industry in Vietnam successfully attracted foreign investors from abroad and achieved some important, local technological upgrading. The industrial experience of the industry can be understood through the developmental rent management analysis, which suggests that at the highest level, there was clear political will to use FDI as an instrument to develop technical learning and to adopt foreign expertise and technology for local suppliers. This political will, however, was diluted at the implementation stage (our second level of analysis) partly because the government was uncoordinated and naïve about market activities and did not understand the progress that local suppliers were achieving. This uncoordinated policy implementation resulted in the loss of a number of opportunities from which the industry could have benefited. First was the failure to push

Japanese and other lead firms to collaborate with local suppliers; second was a failure to support local firms so they could compete with foreign motorcycle manufacturers. As a result, there is not a single strong Vietnamese brand-name motorcycle to this day, and foreign brands occupy the majority of the motorcycle market.

The failure to keep out Chinese firms, initially in violation of domestic content requirements, resulted in market competition between Chinese and Japanese firms, and induced cost competition that allowed local suppliers to join the production value chain. In addition, the availability of more appropriate technology from China helped local firms to upgrade their technical capability. Finally, local firms were dynamic and quick in their learning through collaboration first with Chinese lead firms and later with Japanese assemblers and suppliers. These three factors combined with the political will of the Vietnamese government define the characteristics of the developmental rent management that enhanced learning effort and upgrading for local enterprises. This period implies that despite implementation failures at the state level, technical and capability upgrading could take place at the firm level given a suitable set of rents creating incentives and pressures and appropriate market conditions.

The rent management analysis suggests two important observations. First, the process of technology transfer from foreign investors cannot be relied upon to take place voluntarily or automatically. In order for rent policies to become growth-enhancing, government subsidies in the form of learning rents must be accompanied with credible incentives and pressures either from the state or the market. If the appropriate conditions have to be defined by the state, this can come as a set of conditions such that foreign investors understand that the rents are provided in exchange for investment in local learning and diffusion of technology. In the Vietnamese experience, these pressures did not come from the government, but from market competition, particularly between

Japanese and Chinese firms, in a context where the latter effectively ‘stole’ some of the rents that had been created for the former. This experience suggests that, despite the state’s inability to implement rent policies, market competition among foreign investors in a context where rents existed in the domestic market, potentially produced positive effects for local learning. This was based on a fortuitous and short-lived set of conditions in a context that local firms were dynamic and flexible in adapting and learning the new technology and know-how from foreign partners.

Second, in this industry there were no powerful local rent seekers who could lobby the government for direct rent allocation for the local private enterprises. In this sense, the motorcycle industry is different from the telecommunications or textile and garment industry since, on the one hand, the state corporations—VNPT, Viettel, and Vinatex—each held major market shares in these industries. On the other hand, in the motorcycle industry, MNCs, noticeably, Honda, Yamaha and Suzuki, managed to capture substantial rents both before and after the China shock period because of limited competition in the late 1990s, their flexible and adaptive business strategy to recapture the market in 2002, and effective rent-seeking through the Japan International Cooperation Agency and business associations in Vietnam. As a result, the motorcycle industry remains an FDI-dominated industry while local firms struggle to accumulate technical learning and to acquire new capability.

The second case study indicates that there has been some technological upgrading in the industry because of the rent management mechanism operating in the China shock period that created accidental learning effects. However, this type of rent management is problematic, as it occurred randomly and the benefits were limited and short-lived. In addition, until 2012, quantitative expansion was only achieved through market liberalisation, external opening, and large inflows of foreign capital. This growth

dynamic is vulnerable because it is not based on the strength and capability of the domestic industrial sector. In fact, Nguyen and colleagues (2008) and Nguyen (2011) indicated that productivity measured by total factor productivity has gone down since 2008 (see Chapter 1, Figure 1.10 and Figure 1.11). The implementation of WTO obligations and the completion of the ASEAN–China Free Trade Area liberalisation process by 2015 will exert further and significant pressure on local enterprises. Kenichi Ohno (2008) predicted that “if local capability in technology and management remains as weak as today, a large segment of indigenous industries is likely to shrink or even disappear under severe competitive pressure, and Vietnam will be locked into the position of a producer of low-value good under the dominance of foreign firms” (p. 1).

As international integration deepens, Vietnamese enterprises must greatly improve their capability if they are to survive and to effectively compete with global competitors. To realise Vietnam’s vision for an industrialised motorcycle industry and supporting industries, local firms must achieve higher productivity as well as technical and organisational capability and, not simple expansion of low value component production and assembly. To achieve this goal, Vietnam needs to modify its manufacturing model to one that focuses on value-added production and skilled manufacturing. In this context, our analysis provides the following observations for the formulation of a developmental rent management strategy as the industry moves forward.

### **6.7.1. Forging Political Will**

First, there must be genuine *political will* to boost the development of supporting industries<sup>104</sup> by recognising their importance in Vietnam's industrial development. This requires the Vietnamese government to acknowledge the urgency of creating effective and meaningful rents and a rent management framework that can address the issues facing local producers and suppliers: capital shortage, an ineffective credit market, difficulties in learning and transfer of technology, and uncoordinated policies among state agencies. The government must also coordinate agencies and garner support within the Communist Party to help push through important measures that were not possible in the past due to rent-seeking pressures from powerful interest groups in other industries and from foreign investors (interview MoIT officials, 2012).

### **6.7.2. Strengthening Institutional Capacity**

Second, but no less important, there has to be a practical approach to strengthen rent management capabilities of the MoIT, the Ministry of Planning and Investment, and other governmental agencies. The Vietnamese government must make informed rent policies so that subsidies specifically target enhanced learning and technology acquisition. Once the rents are created to provide incentives and pressures for learning, the key to rent management from the state's perspective is to: (1) monitor rent performance under the MoIT; (2) negotiate with foreign investors to transfer expertise and technical learning under the rubric of incentives provided by the Ministry of Planning and Investment; and (3) renegotiate rent policies if current ones are deemed ineffective. Monitoring could be based on specifying clear performance criteria, timing

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<sup>104</sup> Given the industry's structure, policies that promote the motorcycle industry must be merged with one devised for the supporting industries. At present, it is the supporting industries, especially the industrial sectors that need the focal attention from the government, more so than even the motorcycle industry.

of expected results, and organisational responsibilities in advance and by monitoring important investment projects, but with the flexibility of allowing some conditions to be altered if required under close supervision.

Furthermore, the Vietnamese government's rent management capability requires a radical reorganisation to deepen its commitment to supporting industries. For example, in Malaysia, supporting projects are designed and implemented by the Ministry of International Trade and Industry, and in Thailand they are within the Ministry of Industry. These ministries have several under-agencies that carry out a number of tasks to conduct market research, to promote technological adoption for local firms and to coordinate with other ministries for policy planning and implementation. To prioritise and coordinate supporting policies and activities, these ministries also have a *national committee* headed by top leaders of the respective countries.

In Vietnam, the initial process of conferring the primary responsibility and authority for coordination to the MoIT and building its necessary policy management mechanisms is just beginning. Budgeting and staffing of the MoIT's newly created Centre for the Development of Supporting Industries remains very modest (Ohno, 2008). This centre should be the leading agency charged with real power and resources to promote supporting industries. Unfortunately, in my interview with the manager of the centre, she admitted that its power is currently limited to policy advice and drafting. It does not yet have the power to actually influence the policies that assist SMEs and the supporting industries.

### **6.7.3. Enhancing Industrial Capability**

Third, as argued previously in the concluding sections of the preceding two chapters, new upgrading at the firm level is a prerequisite for sustaining growth. Despite the high local content ratio rate in motorcycles sold in Vietnam, there is a major gap in technological capability between local suppliers and foreign manufacturers. Therefore, it is critical that the government steps in and speeds up the process of technological adoption and adaptation for local firms, as this process does not take place automatically. In this context, the development of larger and more sophisticated local suppliers in the industry must proceed in tandem with the development of supporting industries. In the future, if Vietnam is to thrive in the fifth stage of the supply chain and to engage with research and development, the government must devise Schumpeterian rents to support investments in R&D. Although, this is yet an immediate priority given the stage of development of national capabilities, some R&D capabilities are required even at earlier stages of catching up. It is also critical to create mechanisms that support industry consolidation through mergers and acquisitions in order to develop larger and more capable local suppliers with the necessary scale and sophistication to compete with MNCs and to more effectively network with the MoIT.

#### **6.7.4. Managing FDI**

Trade and FDI continue to play an important role in Vietnam's industrial development by transferring technology and collaborating with local firms so that technical learning and adaptation can take place. This process is by no means automatic, and thus it requires a system of incentives and pressures either at the government level or the market level to induce technological transfer and learning. The government should opt for a mixture of an FDI-led strategy with its industrial-linkage building and

leapfrogging strategy to create independent, high-tech SMEs (Vietnam Development Forum, 2011). An example of a leapfrogging strategy would be a firm skipping steps in the stages of its development. This is because Vietnam has received a large volume of FDI in manufacturing, which can serve as a base for further industrialisation in Vietnam. The government should deepen this relationship by channelling more foreign expertise into building industrial linkages between local enterprises and foreign firms. To do so, the Vietnamese government will need to negotiate with foreign direct investors more skilfully so as to ensure that they commit to transfer expertise and technology at a larger and more systemic scale, while they benefit from policy-created rents and Vietnam's low-cost labour force and large consumer market.

#### **6.7.5. Managing the China Factor**

The China factor (see also Chapter 5, case study 2) plays an important role in the development of Vietnamese industrial sector. While the China shock forced important industrial transformations in the motorcycle industry in the second stage, illegal and inexpensive Chinese components remain a threat for local suppliers because they compete unfairly in the Vietnamese market. Loc Tien Vo, president of Vietnam's Chamber of Commerce and Industry, a government research think tank, pointed out that in 2010 Vietnam imported a total of VND 264.5 trillion (USD 12.7 billion) worth of goods and merchandise from China, of which 55 to 60 per cent serve Vietnamese production for all industries, and 22 to 25 per cent of which are equipment and machineries (Bich-Diep, 2011). According to Anh Tran, owner of an equipment manufacturing company called Vikyno & Vinappro Company, there are some supporting industries that currently have a high potential for entry by foreign manufacturers,

especially Chinese, but these are also areas where Vietnamese suppliers could participate competitively. If Vietnamese government loses sight of illegal mechanical-parts imports from China, these products will unfairly compete with local suppliers, making it difficult to boost the development of Vietnam's mechanical industry (see Bich-Diep, 2011). The China factor must be taken seriously because penetration of Chinese goods, especially smuggled industrial products will harm the Vietnamese supporting industries by distorting prices and incentives for local producers.

#### **6.7.6. Promoting Exports**

In 2012, the market demand for motorcycles in the major Vietnamese cities was close to its saturation point, so the excess production in Vietnam has prompted foreign manufacturers to find ways to export to other developing countries (see section 6.2.). This export activity is beneficial for Vietnam because it creates new jobs and it deepens collaboration between local and foreign suppliers. Therefore, a policy structure that provides incentives for exporters to boost exports could be considered and implemented. Policies in this area are potentially important as they could open up the possibility for Vietnam to become an exporter of motorcycles in the international market.

To conclude, the success or failure of an industry often depends on the interaction and compatibility of a number of rent management mechanisms that rely upon the state, firms, and market dynamics. Sharing risks in technology acquisition or targeting industrial upgrading requires institutions that can provide not only the appropriate financing incentives but that also have the political ability to overcome resistance from interest groups within the economy. Given Vietnam's commitment to global and regional integration, the industry's next phase of development requires better and more

coordinated rent management mechanisms that could bring local firms to the next level of technological and organisational capabilities.

## Chapter 7. **Technology Adoption and Rent Management in Vietnam:**

### **Conclusions**

#### **7.1. Introduction**

This dissertation set out to explore the factors that drove the process of technological upgrading and capability-building in three industries in Vietnam. By analysing aspects of development in these industries, a number of factors were identified as important in determining the pace and direction of technological upgrading and capability in a context of rents. These factors were categorized in three groups as illustrated in Chapter 3, Figure 3.2.

This thesis provides empirical evidence to support the analytical view that rents can be developmental and growth-enhancing under the right configuration of conditions that defines the relevant rents management system. In the telecommunications industry, the configuration of factors included a strong political commitment to develop the industry; the presence of effective institutions that monitored competition; strong incentives to enhance profits in firms that had internal and organizational incentives to seek profit; pressure from market competition; and relatively high levels of initial capability and resources for successful upgrading strategies in the relevant firms. In the textile and garments sector, the factors relevant for understanding the rent outcomes included the internal competition among the general corporations for rents within the state sector, which forced Vinatex and its subsidiaries to strive for industrial upgrading. In addition, there was competition between state-owned enterprises, domestic private enterprises, and foreign investors to export to the international market, and this created incentives and pressures to boost competitiveness in the low-skilled garment sector. In

the motorcycle industry, the rent management configuration was again driven by the political commitment to develop the sector in the late 1990s and early 2000s, followed by effective market competition between Chinese and Japanese manufacturers in the Vietnamese market.

From an analytical point of view, the case studies in the dissertation can help to improve our understanding of how different rents management mechanisms affect the structure of incentives and pressures on firms to exert effort in technical learning, upgrading, and innovation in a developing country. An important observation was that there was no single configuration of factors that can explain success or failure across all three industries. Our analytical framework focuses primarily on different configurations of the factors summarized in Figure 3.2, (1) the political goals and commitments of the political leadership, and the macro-political context of political institutions and organizations that result in particular combinations of formal and informal institutional and policy outcomes; (2) the effective structure of formal and informal policies that support different types of rents, including the effectiveness of the implementation of different policies; (3) the structure of market competition, type of ownership and the initial capabilities and organizational structure of firms that determines responses of firms to rent opportunities.

## **7.2. Summary of Results**

The case studies demonstrate a number of characteristics of industrial development in Vietnam. First, growth was uneven across industries and sectors, and was often supported by ad-hoc policies of the government. Second, there were significant instances of learning and technological upgrading but success varied across

sectors and firms. Third, Vietnamese SOEs, especially state general corporations and economic groups played a dominant role in rent-seeking and unfairly competed with small and medium enterprises in the private sector. Successful rent seeking by these SOEs often resulted in the capture of rents without any productivity gains and these rents can be described as redistributive rents. Many experts interviewed during my 2011 and 2012 fieldwork called for reforms of these SOEs, given their persistent inefficiencies and the distortions they inflicted on the domestic market. However, in some instances, as in the textile and garments and telecom industries, the rent capture strategies of SOEs have had some growth-enhancing effects. The continual transformations of these SOEs in the face of competition and rent opportunities suggest that they may continue to maintain their market power and yet be compelled to enhance their competitiveness. However, very specific configurations of conditions have ensured these desirable outcomes and small changes in these conditions could result in adverse changes in the strategies of SOEs and therefore in outcomes.

Finally, in late 2012, the Vietnamese political context became particularly volatile with unfavourable implications for the growth processes given the intense political struggles between top leaders within the Communist Party of Vietnam (see Chapter 1, section 1.4). At the same time, the Vietnamese economy continued to be weak and fragile, with the possibility of a serious banking crisis coupled with a number of macroeconomic problems, notably high inflation, large fiscal and trade deficits, a depreciating currency, capital flight, loss of international reserves, and eroding investor confidence (World Bank, 2012b).

In this context, it is particularly crucial to understand the importance of effective rent management and the potentially adverse and beneficial outcomes that can be associated with rents while the factors affecting rent management undergo evolution and

transformation. Unfortunately, the state's control over policy-determined rents has been weakening, particularly at the local government level (interview, 2011). Vietnam's weakening economy and the greater fragmentation of the state perhaps explain why rent creation has increasingly been driven by rent seeking from below—by different interests within and related to the government apparatus—and why the outcomes associated with rent-creating policies have been deteriorating. This landscape will further change in 2015 when Vietnam has to fully open its markets to a number of neighbouring countries based on trade commitments, especially to China in line with the ASEAN–China Free Trade Area Agreement (see Chapter 5, section 5.2.1.). The next section summarizes the different rent management mechanisms identified in the case studies and offers some observations about the configurations of factors that were either growth enhancing or growth reducing in the Vietnamese context.

### **7.2.1. Summary of Factors Affecting Rent Management in Vietnam**

Table 7.1 summarises the factors identified in our rent management analysis—politics, institutions and industry organization—that affected the structure of incentives and pressures determining effort exerted in learning, upgrading, and innovation in the case studies presented in Chapters 4, 5, and 6. The (+) sign indicates positive effects of particular factors and conditions in terms of growth-enhancing outcomes while the (-) sign indicates negative or negligible effects. A combination (+/-) sign implies that the factors referred to created a combination of positive and negative effects. Both the (+) and the (-) signs are very simplified indications of the many nuances in the effects of particular factors and conditions that were discussed in more detail in the case studies. As analysed in Chapters 4, 5 and 6, the positive or negative effects vary a great deal in

each case study and the signs do not indicate equal effects in different cases. For instance, while the political commitment and support for upgrading had positive effects in both the telecom and textile and garments industries, the scale of the support and the outcomes achieved were both much more significant in the telecoms sector for Viettel than it was for Vinatex in the T&G industry. Finally, what constitutes a positive or negative factor or condition itself depends on the overall conditions of the sector, the policies that created rents, the capabilities of the firms and the types of technologies that were at issue. However, for the purpose of synthesizing the case studies evaluated using our DRMA framework, Table 7.1 summarizes the positive and negative effects associated with the factors affecting rent management outcomes (politics, institutions, and industry organization).

In addition, in Table 7.1, the shaded cases are the more successful cases of technological upgrading, although the degree of success, again, varies widely. For instance, Viettel was much more successful than Vinatex in adopting new technologies and adding new value to their products. The cases that are not highlighted are relatively unsuccessful cases, as rent seekers captured rents without having any effect on upgrading and productivity improvement and the related industry lost opportunities during the period studied. Generally speaking, the successful cases had two or more factors or conditions with (+) signs and the unsuccessful cases had at least two factors or conditions with (-) signs.

**Table 7.1: Summary of the Case Studies**

Case #	Industry	Case Study	Politics	Institution	Industry Organization
1	Telecom	VNPT Monopoly	-	-	-
2	Telecom	Viettel	+	+	+
3	Telecom	3G Dongle	+	+	+
4	T&G	Quota Period	-	-	+/-
5	T&G	China Factor	-	-	-
6	T&G	Vinatex/State Sector	+	-	+/-
7	Motorcycle	MNCs in 1995–2000 period	+	-	-
8	Motorcycle	China Shock	+	-	+/-

On the basis of the insights provided by the case studies, this thesis offers three observations.

#### 7.2.1.1. Growth-enhancing rent management mechanisms

When all three levels of the factors affecting rent management provide positive support for effort in technology acquisition, even if each level does not work perfectly by itself, an effective rent management mechanism can emerge with sufficient incentives and pressures for industrial learning and upgrading. This observation is exemplified by the successful cases in the telecom industry (Case 2: Viettel and Case 3: 3G dongle). These cases were perhaps the closest to the optimal scenario of rent management for learning because there was clear political will from the top leaders to support the development of the industry; there were informal and formal learning rents provided to the firms; the state was relatively capable of managing the rents and regulating

competition within the industry; there were strong internal incentives within the relevant firms to enhance profits, pressures from competition and the possibility of foreign entry, and sufficient initial capabilities of the firms to upgrade. This combination of factors created an effective rent management mechanism for the industry to industrialise and develop.

#### **7.2.1.2. Developmental rent management despite institutional failures**

If the state is incapable of fully managing the policy-created rents to ensure growth-enhancing outcomes (because of failures at the second or implementation level of our rent management analysis), growth-enhancing outcomes may still be possible if other factors are supportive. Our case studies suggest that desirable outcomes are still possible if the political conditions ensure that there is some resistance to unproductive rent capture; the firms possess some initial capability for learning; there is an adequate time horizon to support learning efforts; and there is sufficient pressure (either from market competition or from other disciplining mechanisms) to create incentives and pressures on firms to put in high levels of effort in technological upgrading and capability building.

For instance, the case of Vinatex (Case 6) is one of weak state commitment with low rent management capabilities on the part of the relevant rent monitoring and enforcement agencies (i.e. MoIT and VITAS). However, there was clear political commitment that Vinatex should stay competitive in order to further the government's social objectives. In addition, Vinatex itself had internal compulsions to sustain its political support from the state relative to other general corporations and state economic groups. At the industry level, there were the incentives to gain profits in the international

market, and pressure from competition with the private sector. Taken together, these factors ensured that the rents created by policy also created incentives and pressures on Vinatex to stay competitive by improving capabilities.

In the case of the China shock period affecting the motorcycle industry (Case 8), the Vietnamese government was once again incapable of managing rents in line with its formal policy objectives given its institutional weaknesses. Here, developmental outcomes were achieved because the political will to support the motorcycle industry created an overarching policy environment of supportive rents, even if they were not effectively managed as learning rents. There were also market incentives for profit, and effective pressures from market competition between Chinese and Japanese manufacturers. Most importantly, the institutional weaknesses of enforcing border controls had an unintentional positive effect in allowing less sophisticated Chinese technology to penetrate Vietnam with cost competition, and thus allowing the entry of Vietnamese component producers and suppliers. However, the China shock case indicates that this positive outcome was short-lived due to the inadequate time horizon for local firms to develop their capability given the vulnerable combination of factors that produced the learning outcomes.

#### **7.2.1.3. Growth-reducing rent management mechanisms**

If there are too few factors supporting learning effort at the three levels identified in our rent management analysis, the outcome could be rent capture in the form of redistributive rents or monopoly rents and the consequent loss of development opportunities.

For instance, in the case of VNPT (Case 1), the policy rents created had the character of monopoly rents and failed to induce upgrading because they provided insufficient incentives for VNPT to upgrade at all three levels of rent management. This is because the rents were granted without sufficient pressure from the top leaders or any disciplining mechanism operated by the state linked to outcomes. There was also no competition in the market at the time to pressure VNPT to upgrade.

Similarly, in the case of the China factor (Case 5) operating in the T&G industry, there was a failure to generate incentives and pressures for upgrading at all three levels of rent management, leading to lost opportunities and heavy dependence on imported materials. In this case, the state was incapable of protecting rents for the productive sector by controlling illegal materials imported from China—which led to unfair price competition in the domestic market and the redistribution of rents to smugglers and other unproductive rent seekers. At the same time, Vietnamese textile manufacturers lacked the capabilities to immediately compete with Chinese materials by upgrading their technical skills and machineries or via joint ventures with foreign investors.

In the motorcycle industry (Case 7) the rents that foreign lead firms received prior to the China shock period from 1995 to 2000 were also provided without any conditions from the state or pressures from the market to achieve diffusion of technology and expertise. Consequently, despite the political commitment of the state to develop the motorcycle industry, there were insufficient conditions to ensure a transfer of learning and technology from foreign multinational corporations to Vietnamese suppliers.

Finally, the quota period (Case 4) provides another example of a missed opportunity in the T&G industry. In this case the state was not only incapable of managing rents but was also so corrupt that it extracted rents from the industry. Although there were formal rents created by policy, producers could not access these rents to

improve their industrial capability or expand their investment in the textile sector despite the fact that they were dynamic and market conditions were supportive of learning and upgrading. In this configuration of conditions, local and foreign firms engaged in the rent-seeking scheme to obtain quotas for exports in ways that deprived them of most of the rents.

### **7.3. The Role of the State in Rent Management: Analytical and Policy**

#### **Implications**

For developing countries, the heart of a viable industrial and technology policy is to address the many market failures that constrain domestic firms from technical learning and upgrading so as to develop globally competitive and technologically competent domestic firms. However, globalisation has brought fundamental shifts in what poor countries can and should do to foster industrialisation.

Perhaps the most significant change has occurred with respect to the role of trade policies, which were the principal instruments for industrial promotion in the past. The lowering of trade barriers, the proliferation of BTAs between developed and developing countries, and more stringent WTO rules on issues like domestic content rules and the protection of intellectual property rights have constrained the types of rent policies that are feasible (Haque, 2007). Apart from lowering trade barriers, the BTAs between Vietnam and other developed countries usually also contain provisions concerning rules relating to FDI, capital account liberalisation, intellectual property protection, and clauses on labour and environment standards. In addition to new rules governing international trade, the context and design of industrial policies have profoundly changed as a result of changes in global value chains, and the rise of international trading

networks, which have raised some of the barriers for new firms entering the world market. These changes have arguably constrained the policy space that developing countries enjoyed in devising rent strategies, but they have not removed the policy space entirely.

The problem of economics is not about coming up with the most thorough and extensive laundry list of policies, but to identify areas of constraints and externalities that can be corrected given the country's political economy. Furthermore, policymaking is contextual; there is no blueprint of "good policies" that countries should adopt. The choice of industrial specialisation and policies that go with it have to be determined according to an individual country's circumstances. The challenge is to fit policy-amenable variables with those that are exogenous so that the overall configuration of factors affecting rents management can ensure conditions for effective learning and the development of capabilities. This thesis provides evidence that effective configurations of factors for rent management requires multiple levels of rent management—politics, institutions, and industry organization—to interact in order to produce positive incentives and pressures that encourage learning and capability-building.

In addition, the analysis suggests that the political commitment to use rents to support development has been limited to interventions that were consistent with the vested interest of major political and economic actors, such as government agencies, SOEs, and enterprises informally connected to the government. Building on insights from Fforde, Masina (2010) observes: "[T]he existence of a high level of 'competitive clientelism' among different groups inside and around the state sector has contributed to a higher level of efficiency in the use of resources ..., thus explaining the overall positive contribution of the state sector to economic growth" (p. 196-197). However, starting in the late 2000s, the configuration of factors that supported this dynamic began to change.

It has been widely reported in the media that competition between the clientelist networks has been intensifying, and this can result in rents being captured without a sufficient time horizon for the beneficiaries to ensure productive investments (Agence France Presse, 2012; AmCham Vietnam, 2012; Bloomberg News, 2012; Vandenbrink, 2012; World Bank, 2012b). In these cases rents take on the character of redistributive rents rather than growth-enhancing rents like learning rents.

Politics aside, the government could take steps in five related areas to help Vietnam to the next level of development. First, the ability of the private sector to take risks in technology acquisition is absolutely vital for Vietnam's development. However, the analysis in Chapters 4, 5 and 6 suggests that the Vietnamese private sector is weakening and is losing out to both FDI and to the SOE sector. The continuation of this decline is likely to damage Vietnam's economy and its ability to continue learning and developing new industrial capability.

From this perspective, the Vietnamese government's rent strategies need to pay greater attention to *domestic enterprise development*. Here, the most important task is to address some of the most critical constraints and bottlenecks identified in this thesis, such as access to credit and capital markets, low technical and managerial skills, weak coordination between the state and firms and between international buyers and domestic sellers, heavy reliance on imported materials, out-dated machineries, and inadequate production expertise.

Vietnamese firms have to increase value addition in their production, especially in industrial goods (Khan, 2009a; Masina, 2010; Ohno, 2008). To do this, there has to be a policy focus on upgrading technical and organisational capabilities at the firm level. To accomplish this, the playing field between the state and the private sector has to be levelled to a greater extent since SOEs cannot drive technology acquisition and

capability development on their own into the indefinite future given their monopolistic characteristics and access to political rents. Next, policy has to ensure an overall mix of conditions such that rents go to those who can put in the most effort in learning and upgrading technical skills and capabilities. This may involve having performance benchmarks, making beneficiaries accountable for their performance, and specifying time limits for protection in order to avoid unlimited redistribution of the rent as well as ensuring that rents are not captured in unstable conditions with very limited time horizons. These measures can involve strengthening the rent management capabilities of the state, for instance through government institutions such as central and local business development agencies and intermediaries associations. However, in a context of weak institutional reform capabilities, policy could also focus on devising interventions that create rents in ways that market competition can serve to create the pressures and compulsions for capability development.

Rent policies are frequently opposed by industrial countries, which argue that they discriminate against foreign firms. Vietnam has done well in resisting this pressure. In the early stages of industrialisation, competition may need to be restricted in order to allow local firms to gain capabilities and to compete in the domestic market. However, excessive reduction of competition can be counter-productive. Additionally, international trade agreements has made rent creation through trade restrictions more difficult. The focus should be to provide rents to domestic firms through other mechanisms, but in a context of moderate competition, to ensure capability development. This is generally a difficult balancing act as the government may risk losing foreign partners and investments from abroad if it gets the balance wrong.

Second, while exports remain a significant source of income, it is difficult for any developing country to sell labour-intensive products in foreign markets without the

danger of being trapped within established supply chains or trade networks. The establishment of national trading companies as proposed by Pack and Saggi (2001) could help overcome this trade barrier and bridge the gap between local Vietnamese exporters and international buyers. In the meantime, Vietnam must re-examine and address the factors, which constrain it to be an exporter of low-skill and low-value goods. This is a difficult problem; and any national development strategy must also take into account the fact that the Vietnamese market in general has been flooded with cheap materials and imports from industrially advanced developing countries and increasingly China. In effect, this reality limits the opportunity of local firms to gradually build their capability and to add value in their manufacturing activities in the domestic market. Once again, rent policies have to recreate these opportunities in the context of limited policy space.

Third, Vietnam needs stronger business associations and state agencies to create greater embeddedness between firms and government agencies. Rodrik (2004a) underscores the “need to embed private initiative in a framework of public action that encourages restructuring, diversification and technological dynamism beyond what market forces on their own would generate” (p. 1). So far, like VITAS, most Vietnamese associations are strongly connected to the government or to SOEs and thus fail to represent the private sector. The creation of more effective, private and independent associations operated and represented by businesses in the private sector will be vital for dialogue and policymaking between the government and any industry. They would help the state to devise policies that address realistic issues faced by the private sector and to support business activities for growth.

Fourth, the China factor is important enough to be separately considered given the challenge it poses to the industrialisation of Vietnam due to the influx of cheap and even below-market-price imports. So far, the Vietnamese government has failed to

address this issue or to remedy its negative effects. This is largely due to the state's lack of political will and capacity to confront China, combined with its own weak monitoring and enforcement capabilities in targeting illegal trade across the border. In 2015, 99 per cent of goods traded between Vietnam and China will in any case become tax-free because of the ASEAN–China Free Trade Area Agreement coming into effect, and thus border controls will no longer be an optional solution for the China factor. Nonetheless, the Vietnamese government must consider and devise new strategies to address the negative effects caused by Sino-Vietnam trade. It could do this, for example, by targeting capability development of domestic firms in niche markets where Chinese goods are not as competitive and by taking advantage of China's large consumer market. Otherwise, the Vietnamese economy will continue to be overshadowed by China and continue to miss many more opportunities to develop its own economy.

Finally, the question of how to reform the state sector in Vietnam needs to be noted; although, this issue goes beyond the scope of this thesis. The analysis throughout the case studies suggests that to improve the state sector, Vietnam must at least have rigorous and effectively enforced regulations that promote competition, information disclosure, and even-handed management of conflicts of interests between the SOEs, especially the general corporations and the state economic groups. Otherwise, the next round of equitization is likely to fail, like the previous ones, in the sense that equitization has largely created incentives for SOE managers to capture rents based on their monopoly or oligopoly position in the domestic market and their advantageous access to state capital and land (Pincus, 2009). These changes require a high level of political will on the part of the leadership to override powerful interests that will seek to block or modify meaningful reforms.

#### 7.4. Future Research

This dissertation is the first step in a larger enquiry into the configuration of factors affecting rent management in Vietnam, even though it has focused solely on three industrial sectors—the telecommunication, textile and garment, and motorcycle industries. A more complete story of development in Vietnam requires an analysis of other important industrial sectors, such as oil and gas, electricity, electronics, and information technology and critical nonindustrial sectors, such as coffee in agriculture and different parts of the service sector. Furthermore, a clearer perception of the informal institutions and political dynamics within and around the CPV and the government must be included in the larger project of developmental rent management analysis.

Vietnam also needs a better analysis of its options in solving the China factor. While China poses challenges to Vietnam's development, scholars such as Oya (2006, 2008, 2009) suggest that the China relationship via trade, investment, technical assistance and aid could be beneficial as well. Our case studies suggest that the China problem has to be better understood in the context of multiple levels of rents management affecting different sectors (politics, institutions and industry organization). Consequently, sector-specific strategies and agreements may be the way forward. Vietnam could also benefit from China's growing consumer market if there is better access for Vietnamese producers to penetrate Chinese economy.

Finally, the Vietnamese state as a domestic and cross-border investor through some large state economic groups such as Viettel and VNPT, is investing heavily in other developing countries. This is a growing phenomenon. What are the impacts of these types of foreign investments to Vietnam's own development? These topics remain important areas for further research.

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## **APPENDIX: FIELDWORK QUESTIONNAIRE**

### **A.1. GENERAL INDUSTRY QUESTIONNAIRE**

**(applied to all industries)**

1. How did the sector establish and spread initially?
2. What are the constraints in this industry?
3. Given the constraints, what motivates and pressures local firms to upgrade its technology and capability-building?
4. What is the standing of this sector in the market and the Vietnamese economy?
5. What technologies are used in this sector?
6. How sophisticated are the technologies?
7. How do the firms able to adopt the technologies?
8. What are the current technology obstacles within this industry?
9. What are this industry's spillover effects for other industries in Vietnam?
10. What are the horizontal transfers of technology (to other activities), if any?
11. What are the vertical transfers of technology (within the production process), if any?
12. What is blocking the upgrading or capability-building of this industry? (i.e., competition, corruption, etc.)?
13. What kind of support do the local firms need from the government and other institutions?
14. What is forthcoming in terms of market competition? What do you expect the industry is heading towards in the near- and long-term future?
15. What are the government's future policies/strategies for this industry (for example, more liberalisation, better governance, etc.)? How will it be carried out?

16. Is the sector driven by particular rent-seeking groups and activities? If so, how is it done?
17. What are the rent policies that promote technological adoption?
18. What are the policy debates, if any, that will move the upgrading process forward (i.e., more technology, improved skilled labour, or improvement in the credit markets)?
19. What are the roles of foreign direct investment (FDI) and technology within this industry? Is it necessary? In what way is FDI important for this industry?
20. What is the impact of the 2009 financial crisis to this industry?
21. How have the firms coped with the changes in market conditions?

## **A.2. MOTORCYCLE INDUSTRY**

### **Questionnaire for Business Owners in the Motorcycle Industry**

1. What are the focal points of your business?
2. What is your niche market?
3. What is your company's process for training labour?
4. What are the issues related to labour that you have encountered?
5. What, if any, any competition pressures from Chinese components (especially illegal imports) are you under?
6. What is your business strategy to overcome challenges imposed by Chinese goods?
7. Do you outsource some of your production to other local firms?
8. What is the potential for the supporting industries, in your opinion?

9. What kind of support do you need from the government in order to develop and grow? What could the government do to improve or support your business (i.e., streamline logistics, reduce inflation, etc.)?
10. How do the current macro-imbalances and instability within the economy change the dynamics or business direction of your business?
11. What is constraining your business development now and into the future?

**Questionnaire for Government Officials at the Ministry of Industry and Technology**

1. In the first period (1995–2000), did the government intend to create policies to promote technology transfers and learning, or were the policies primarily focused on bringing in FDI?
2. In the second period (2001–2004), did the government realise the positive effects of technology acquisition imparted by Chinese–Vietnamese collaboration during the China shock?
3. Why did the government not support the local suppliers so that they could stay in business and to continue upgrade after 2001, 2002?
4. Also in the second period, why did the government fail to enforce local content policies? What was the actual cause? For instances:
  - a. Corruption
  - b. Deliberate policy by the government
  - c. Political pressure from the Chinese government and the lead firms
  - d. Pressure from domestic importers who want to capture the rents
5. How did the ministry deal with the pressure of illegally imported components from China in the second period?

6. Why is the scope of the supporting industries defined so broadly, and not specifically focused on manufacturing industries (with technology and skills spillover advantage)? Did the broad scope allow for more interest groups to participate in the rent distribution system?
7. Why were there coordination failures among the ministries and between MOIT and the firms?
8. What has the government done to lessen the number of coordination failures?
9. Why did the government/ministry not devise industrial policies to aid the supporting industries until 2011? (Decree 12)?
10. What incentives (subsidies/rents) did the government provide to support local firms, and to boost technology transfers from FDI via Decisions 34 and 12?
11. Is there an effective Vietnamese association that represents local suppliers and assemblers in the motorcycle industry?
12. What kind of supports is the government offering local suppliers/firms at the moment (in 2012)? For instances:
  - a. Management systems
  - b. Equipment
  - c. Guidance and training

### **A.3. TEXTILE & GARMENT INDUSTRY**

#### **Questionnaire for Government Officials and Experts**

1. Please tell me what you know about the quota period?

2. What was your role in the T&G during that period?
3. Did the government have genuine intention to promote development in the T&G industry?
4. How did the quota market establish? Under what mechanism? Why did the government corrupt?
5. Why did A Chau report the corruption scandal?
6. What was the role of foreign investors and foreign buyers during the quota period? Did they know? What did they do to limit their damage?
7. What mechanisms that put the system back to balance?
8. Did Tuyen Dinh Truong and his higher authority know of the corruption scandal before it erupted? If yes, why did they not do anything about it?
9. Please evaluate Vietnam's competition with other garment-exporting countries (Bangladesh, Pakistan, etc.).
10. Do Vietnamese producers have a competitive advantage over these countries? If so, in what way?
11. Why wasn't an SOE created to compete with Vinatext, as seen in the case of telecom industry – competition within the state sector? Why doesn't Vinatext have rivalries such as the case of the telecom industry?
  - a. Is it because it's more powerful than VNPT or the Ministry of Defence?
  - b. Is it because of a historical reason?
12. Is the textile sector being left for the free market at the moment (as with the motorcycle industry)? If so, why? If not, in what way is the government monitoring and supporting the textile sector?
13. What are the factors that are constraining the upgrading process in the textile sector?

14. Why is there a 0 per cent tariff for imported materials used for exports? What is the origin of this policy? Who lobbied for it?
15. Investors claimed that the infrastructure and firm capability are insufficient to improve or promote more investment in advanced technology that would increase the quantity and quality of textile production. What is your opinion of this claim?
16. Were there contestations between the textile and garment manufacturers?
17. Do you believe that to develop the textile industry, Vietnam must increase production of cotton and other raw materials? If yes, why? If no, why not?
18. By 2015 most imports from the China–ASEAN block will flow into Vietnam with 0 per cent import tariff. What will the challenges and opportunities that Vietnam will face? What are the strategies that the government will employ to take advantage of the benefits and to deflect the negative effects?
19. Who else owns Vinatext? What is the ownership arrangement within Vinatext?
20. Evaluate the following claims about Vinatex:
  - a. It is a general corporation competing with other businesses in the industry.
  - b. It is a government institution, which is in charge of managing and directing state resources. In this case, is it a rule-maker and a credit holder?
21. Is there a sufficient or insufficient institutional structure?
22. Does Vinatext maintain equal power as the government, or does Vinatext control the government?
23. Do you think that Vinatext uses rents properly to acquire new technology to enhance learning and to increase production of raw materials for textile manufacturing?

24. How did Vinatext use its political power and subsidies provided by the government, either directly or indirectly?
  - a. Did the rents get redistributed?
  - b. How does Vinatext monitor its rents? How did it level competition and market conditions with private and foreign investors?
25. How does the institutional structure of Vinatext induce different sets of outcomes:
  - a. Does it pass on opportunities to subsidiaries?
  - b. Does it exploit opportunities from its subsidies for personal benefit?
26. Why didn't Vinatext, VITAS, or MOIT identify other opportunities in the textile industry, such as materials for sofas, raincoats, etc.?
27. These are profitable and unexplored markets. Are there any research institution units in charge of doing this research?
28. Was it a correct strategy to equitize the subsidiaries of Vinatex?
29. What are the advantages and disadvantages of equitizing Vinatex subsidiaries?
30. Why is there a huge enforcing issue in this industry, especially in regards to Chinese goods smuggled into the Vietnamese market?
31. Is it premature for the government to open the textile industry for FDI by reducing the tariff rate for textile imports (12 per cent)? If yes, why? If no, why not?
32. Is there still a need for upstream linkages now that the region is freely traded among ASEAN countries and China (the ASEAN + China Trade Area), in which Vietnam will fully participate in 2013?

#### **A.4. TELECOMMUNICATIONS INDUSTRY**

## Questionnaire for Firms, Government Officials, and Experts

1. Please give an example of a (or your) company lobbying to the government for rents?
2. In 2012, the industry will be completely open the market for foreign competition. How is the industry ready for it?
3. What is your take on the issue of privatisation/equitization of VNPT (mobile phone), Viettel, etc.?
4. Why was the telecom industry protected? Why weren't other industries (i.e., national security, or rents protection for interests)?
5. What is your evaluation of role of the Ministry of Information and Communications (MIC) in its performance in monitoring and developing the telecom industry?
  - a. Is a new institution needed to replace or support the MIC? If yes, why? If not, why not?
  - b. What is the institutional make-up of the MIC in the telecom industry (its power, authority, and regulation mechanisms)?
  - c. What is the MIC's enforcement mechanism?
6. What ensured Viettel's learning effort (for example, market competition, pressure from the government or incentive systems, opportunity for profits, etc.)?
7. Do you think the on-going price competition within the telecom industry damage the development of the industry? Why (i.e., reduce price → reduce profit → reduce learning; training and upgrading; and capability-building, etc.) or why not?
8. Evaluate the MIC and the industry's ability to compete by 2012 with foreign companies.

9. Why is the enforcement (market and institution) capability weak in this industry?
10. What is the current enforcing mechanism that keeps the system in place?
11. Did the government provide Viettel with any financial supports (rent)?
12. Did the government provide support (rent) to any company other than to VNPT?
13. Why was the BCC form of business rather than joint venture chosen with foreign investors/businesses?
14. Should the state play a guiding role in this industry or should it leave it to market forces?
15. How did the other seven telecom companies prepare themselves to compete for market share against VNPT and Viettel?
  - a. What were their business strategies?
  - b. What is deterring them from upgrading and capability-building?
  - c. What are the financial resources?
  - d. How could they lobby the government?
16. Why was the 3G beauty contest selected as the form of competition?
17. Do you think the MIC chose the correct selection system to grant the license? If yes, why? If no, why not?
18. Do you think the licensees deserve their license or should other company(ies) have licenses too?
19. Please evaluate the quality of 3G service.
20. For experts and firms: please evaluate the growth and development of 3G technology in Vietnam.

**A.5. QUESTIONNAIRE FOR EXPERTS AND POLITICAL ECONOMISTS**

1. Does rent-seeking occur only at the state sector? If yes, why? If no, why not?
2. Does the increasingly powerful private sector, which connects to the state (i.e., Viet Capital), affect the development of the country? If yes, why? If no, why not?
3. What makes a sector grow after rents are created?
4. What are the biggest and most important problem/obstacles/issues in Vietnam's development?
5. In the last two periods (1986–1999 and 2000–2010), what were the political arrangements that helped the development of the three industries (T&G, telecommunications, and motorcycle), as well as the industrial development of the economy as a whole?
6. Is the state strong? Is the government strong? Why, or why not?
7. Are there a lot of contestations within the government? If so, how does it occur?
8. What are the informal mechanisms that hold the government, the Communist Party of Vietnam (CPV), and the ministries together?
9. What is the distribution of power between capitalists, different factions, and the state? Where does the power lie?
10. What is the relative power of each organisation and their interface with each other (general corporations and state economic groups versus the CPV versus other social groups)?
11. How much control does the state/government has over rents? Does it have the power to withdraw and reallocate rents?
12. Where does the bargaining power lie in Vietnam?

- a. Is it within the state, government, or the CPV? What are their motivations (i.e., to develop the economy, seek rents, etc.)?
  - b. Does bargaining power go beyond the state? Please explain.
  - c. Do firms have any power and sayings to the state? If so, why and how?  
If not, what are the constraints on the firms?
13. How much control does the state has over rents to enforce learning and upgrading? If not much control, is it intentional?
14. Do you think the state, its body, historical reasons, or institutional structure of the party and the government is capable or incapable? Please explain.
15. What are the conditions for rent creation through the broader political and institutional process?
16. What is the informal institutional structure that allows value-enhancing rents to be created by the government?
17. What are the conditions that could ensure efficiency and effort with a system of rent-seeking from below? Is it at the firm level?
18. Is the power of interest groups proportional with an industry's gains or losses?  
If not, why?
19. Is there something missing in the institutional structure that prevents the interests of these different groups to be reflected in the institutional structure?
- a. Could it be that the institutional structure did not enable all of interests of groups inside the government to be internalised because the industry was structured in a way that certain interest was given more weight than others? (for example: tax benefits, subsidies etc.)?
20. Can only insiders (member of the Communist Party of Vietnam or the government) play the rent-seeking game? If no, who else could take part in it?

21. Does the state have control at the margins, when rent-seeking threatens the legitimacy and certainty of the state? If so, who determine the margins (the boundary before the Vietnamese people fed up and revolve)?
22. How does the state learn (i.e., from their mistakes, experience)? How effective is it over controlling those who loses out in the rent-seeking game and easing out contestation?
23. What is the nature of the political economy in Vietnam?
24. What is the nature of the political settlement in Vietnam?
25. What is your opinion on why the state does not enforce its own policies (such as industrial policies)?

#### **A.6. FOLLOW-UP QUESTIONS (2012)**

1. What is the role of the private sector?
2. What is the government's intention/plan/strategy in managing the private sector?
3. Did the Vietnamese government misunderstand the Big Push theory? Why, or why not?
4. Do you think most of Vietnam's industrial success was accidental because there wasn't a clear role of the government? If yes, why? If no, why not?
5. How can the China factor be solved? Why has it not be accomplished?
6. Why does the government struggle with enforcement?
7. How are possible mechanisms to discipline nonperforming SOEs and state organizations?
8. How did interest groups help or deter the process of industrial capability-building?

9. What is the role of SOEs in recent economic development? What are the options to boost their performance and upgrading?
10. What is the role of government institutions in managing Vietnam's development strategy?
11. How can the principle (state)-agent (state bodies and SOEs) solve any problems?
12. What is the role of the private sector in the success of some industry's industrialisation?
13. How can capability be boosted in this sector?
14. What is constraining this sector's development at this time?
15. Evaluate the impact of recent changes in international market, especially since the 2007 global recession.
16. How did changes in the international market impact Vietnam's development in the past and how will it influence Vietnam's development in the future?
17. What is the role of FDI in Vietnam's development?
18. How can FDI's positive impacts be promoted and the negative effects limited?
19. Are *co che xin cho* (granting mechanism) a mechanism that allows rents to be distributed among the interest groups within the state body? If yes, why? If no, why not?
20. What are the development policies/strategies that Vietnam should focus on for future development?
21. How do various interest groups help or deter the process of industrial capability-building?
22. What are the dynamics of rent-seeking activities in Vietnam?