

**Industrialisation and the Triangular Rent-Seeking
Relationship between Vietnam, Japan And China in Vietnam's
Motorcycle Industry**

Christine Ngoc Ngo

Department of Economics
School of Oriental and African Studies
University of London
theseawind@gmail.com

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ABSTRACT

In examining the industrial success of Vietnam's fast growing economy, this paper firstly asks whether FDI based industrial policy in the motorcycle industry resulted in industrial success and, if so, why. Using the political economy framework of rents and rent seeking, this paper assesses the triangular rent seeking relationship between three countries - Vietnam, Japan and China - in relation to Vietnam's motorcycle industry. The paper concludes that the Vietnamese government's policy in offering rents for foreign investors were largely unsuccessful in the short term; however, some accidental rents have led to significant technological transformation in the production chain among assemblers and producers.

Keywords: Vietnam, industrial policy, foreign direct investment, technological upgrading, rent-seeking, motorcycle industry

Journal of Economic Literature Codes: B5, O1, O25, O32

1 Introduction

In the past 10 years, the motorcycle industry in Vietnam has achieved great success. In the years leading up to 2005, the industrial production value of the industry accounted for 3.1% of the total industrial production value of the country (Master Plan, 2007) and has grown by 23.9% in 2007 (Vietpartners, 2009). Revenue per annum was in between USD 1.2 to 1.4 billion, of which 10% went to the government. Export value in 2005 was USD 70 million, 30 times higher than in 2001. Motorcycle production as an assembly industry employs about 20,000 workers as well as tens of thousands of workers in support industries and related services. The industry can now meet domestic demand for normal motorcycles with a capacity of up to 125cc. The localization ratio is more than 70% and some of the motorbike models have become export items (Master Plan, 2007). By 2006, Vietnam's motorcycle market reached nearly 2 million units per year, with an expectation of further expansion in the future (Fujita, 2008). The size of domestic demand is now sufficient for major assemblers to aggressively introduce new models and for parts suppliers to invest in Vietnam (Fujita, 2008).

Given the industry's phenomenal success, it has often been overlooked 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 and providing incentives for foreign investors. By the late 1990s, major motorcycle companies in Vietnam included one Taiwanese transnational corporation (TNC), VMEP, and 3 Japanese TNCs (Suzuki, Honda, and Yamaha), as seen in the table below. Some Taiwanese and Japanese parts manufacturers followed the lead of the motorcycle companies (the lead firms) and also invested in Vietnam, producing such parts as tires, batteries, electric and plastic parts and breaks. Fujita (2007) contends that by the late 1990s, the 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 (Fujita, 2007).

Table 1: Major Foreign Motorcycle Firms In Vietnam

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.

The industry, however, has had various apparent problems. Although Vietnam has regarded the motorcycle industry as a “key industry” since the mid 1990s, a comprehensive strategy for developing it was not promulgated until 2007. From the mid 1990s onwards, individual policy instruments such as (1) import protection, (2) incentives for foreign direct investment and (3) product quality and safety standards, were employed in an ad hoc and often inconsistent manner (Fujita, 2007). Foreign investors have noted that frequent policy changes and weak enforcement have been serious problems in attracting more FDI (Fujita, 2007). In 2005, the industry entered a new phase; the Vietnamese government, in an effort to speed up negotiations for the country's entry into the World Trade Organization (WTO),

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 motorcycles and stimulated a new wave of FDI in the expansion of motorcycle and motorcycle component production. It also set the industry on a more market-oriented path of development (Fujita, 2008).

Despite the industry's remarkable performance over the past decade, the rent seeking relationships between Vietnam and its two major investing countries, Japan and China, present a different story which demonstrates that the Vietnamese government's allocation of rents to Japanese investors has been mostly unsuccessful. Because industrial development requires skill training and technological transfer, a major purpose of the Vietnamese government's policy in attracting FDI from abroad was not the FDI itself, but the types of FDI that would enhance learning-by-doing, and transfers of technology into Vietnam's infant industry. Otherwise, FDI investors might have captured all the beneficial rents and profits from the local market without helping Vietnam to industrialize.

Yet, in spite of this intention, the story of Vietnam's approach towards rents has often been contradictory. In the late 1990s, the Vietnamese government used tax policy and import controls to create rents for foreign investors, in particular Japanese (and some Taiwanese) TNCs, by giving rents such as tax breaks and other privileges to encourage technological transfer. However, what the Vietnamese government achieved was the transfer of production processes to meet the government's local content requirement; but the location of production in Vietnam did not equal the transfer of technology. In addition, Japanese investors asked for even tighter control over technological diffusion. They argued that the government's commitment to the protection of property rights would encourage more Japanese FDI to Vietnam, and the Vietnamese government obliged. Yet what Vietnam needed was not the construction of a few more factories but the diffusion of technology in Vietnam (M. Khan, personal communication, August 5, 2009). For the Japanese investors to invest yet control their technology in house not only defeated the initial purpose of the rents but also allowed Japanese TNCs to

capture Vietnamese market shares. The Vietnamese government's rent strategy, therefore, has been largely counter-productive.

This rent seeking relationship between Japanese investors and Vietnam's government was, however, disturbed by the penetration of Chinese investors into Vietnam's motorbike industry by means of low-cost motorbikes and false claims of local content ratio, as well as the government's failure to enforce import controls of completely knocked down units (CKUs). These three factors together created a set of accidental rents to both Chinese and Vietnamese enterprises, which subsequently brought important transformations in technological upgrading for the industry. The dynamic of this rent seeking relationship will be assessed in greater depth in the following chapters.

In the next chapter, this paper will present the theoretical framework of the analysis, which includes the market failure of learning by doing and two potential growth-enhancing rents in the context of late developing economies. This is followed by a discussion of the political and institutional conditions in which rent allocation can stimulate development. The third chapter analyzes the level of technical learning and technological diffusion by Japanese and Chinese investors by examining the failure of Schumpeterian rents and the positive effects of accidental rents through imports and foreign investment channels. The paper concludes with the author's critique of the successes and failures of governance from a rent seeking perspective in Vietnam's motorcycle industry.

2 Theoretical Framework

2.1 Market Externalities of Learning By Doing

Developing countries such as Vietnam face many types of market failures that constrain growth and development, affecting in particular the acquisition and development of new technological capabilities (Khan, 2009b). Overcoming these market failures requires various types of governance and the specific mechanisms for doing so differ widely across countries (Khan, 2009b). We shall begin this

discussion by examining one of the most important market failures, learning-by-doing, which was first introduced by Kenneth Arrow in 1962.

The term learning-by-doing describes the phenomenon that productivity with new machines is always initially low, and only gradually improves as a result of learning how to use them. This means that unless there is some institutional system that can both allow this learning to take place, and ensure that resources are not wasted if learning fails, investment in high productivity sectors is unlikely to happen (Khan 2007). Arrow elaborated on this hypothesis by arguing that workers gain new skills and solve work related problems just by performing a job repeatedly over time. The new learning therefore leads to an increase in productivity at approximately 2% per annum even in the absence of new technology, training or innovation (Arrow, 1962).

Using Arrow's argument, developing countries have argued that it takes extra time for workers to achieve new learning from practice and to increase industrial productivity. These countries have therefore provided tariff protection to prevent foreign products from competing in their domestic market (Khan, 2008) and incentives to attract FDI from abroad. Without government subsidies and support, infant industries have a much smaller chance of success. Nevertheless, Khan (2008) contends that, "The problem is to work out the best way of delivering the subsidy, and resolving any conflicts between different strategies." The discussion of rents and rent seeking in political economy seeks to find possible solutions for this market failure.

2.2 Rents & Rents Seeking In Late Developing Industrialization

The allocation of Schumpeterian and learning rents is often argued by some political economists to be one of the most important policy instruments for developing countries to correct inevitable market failures and to move up the value chain for economic growth. According to Khan (2000a) rents generally refer to "excess incomes, which in simplistic models should not exist in efficient markets." In order to catch up technologically, developing countries must make use of various rents to enhance economic

growth. At the very core of development, Schumpeterian and learning rents play significant roles in the industrialization process of late developing economies.

2.2.1 Schumpeterian Rents

Schumpeterian rents are rents that reward innovation, often in the form of tax breaks, subsidies and patent protection. Innovating firms have an advantage over their competitors when they develop a better product or a new way of making an existing product more cheaply, which other entrepreneurs cannot instantly copy. They could thus earn a rent. This rent is generated because the firm has either a cost or quality advantage over its competitors, which allows them to earn a higher return compared to their next best alternative (Khan, 2000a). In cases in which innovation can be easily copied, it may be “artificially” protected through patents. This is because in many cases, once an innovation has become a public good, it can be rapidly copied and thus discouraged innovators. Therefore, it may not be desirable to eliminate Schumpeterian rents too quickly because the process of innovation takes time, risky and requires effort and investment (Khan, 2000a).

The policy question is whether the length of time over which Schumpeterian rents exist is too long or too short. Khan (2000a) contends that government protection may be too long if the notional welfare loss for consumers due to slow imitation outweighs the benefit gained from the additional innovation. On the other hand, the period is too short if rents disappear so rapidly that the loss of future innovations out-weighs the immediate gains to consumer welfare. All government policies can increase or decrease Schumpeterian rents; examples include rules that give tax breaks to innovators, competition policies, which prohibit or allow restrictive practices by innovators to maintain their profits, or patent laws, which directly restrict imitation for a certain period. Policies such as these are effective at determining the length of time for which innovators can earn extra profits (Khan, 2000a).

Schumpeterian rents offered by the protection of trademark and intellectual property rights have to be periodically reviewed because rents can be easily misused to maintain profits without innovation, in

which case they effectively support monopoly profits rather than Schumpeterian rents (Khan, 2000a). In some instances, patent protection can cause the rate of innovation to decline. Political economists have argued that policy should err on the side of promoting competition, although in theory too much competition can often be as bad as too little (Khan, 2000a). In the case of Vietnam's motorcycle industry, as we will discuss below, this paper will further assess how sustained protection of Schumpeterian rents for Japanese investors did not result in faster rapid technology diffusion than market forces did.

2.2.2 Learning Rents

Conceptually, learning rents are often confused with transferred rents and Schumpeterian rents although they are clearly distinguishable from them. By definition, Schumpeterian rents are rents that reward investment, which has already been made, and innovation that has already been achieved (Khan & Blankenburg, 2009). Learning rents, on the other hand, are given *ex ante* and target learning and technological progress in a specific industry or sector (Khan & Blankenburg, 2009). Learning rents are also often derived from specific growth-enhancing targets, and therefore often carry conditions upon achievements within a certain targeted period, unlike transferred rents, which have various diversified motivations, which are often due to political compromise and settlement (Khan & Blankenburg, 2009).

Learning rents can be beneficial if they create new technological learning and progress within targeted industries. However, success often requires the imposition of sufficient conditions and time frames for the rent recipients. If the net social benefits created outweigh the social cost, learning rents are arguably an important industrial policy tool for industrial progress in developing countries. On the other hand, learning rents are not always easily implemented, partly due to political fragmentation within a country and the State's consequent inability to discipline nonperformers. Khan & Blankenburg (2009) argue that for learning rents to be sufficient growth enhancing rents, the State must provide sufficient political and institutional compulsion as well as conditions to monitor them effectively.

2.3 Conditions And Compulsion For Growth Enhancing Rents

What are the necessary political and institutional conditions for sustained and rapid improvements in living standards? This question goes to the heart of many current debates on the role of markets and the State during the economic and social transformation that successful developing countries have gone through. Most economists agree on a number of broad features that characterize successful nations, such as high saving and investment rates, the export of high-value added manufactured products and the acquisition of new technology. However, beyond these general observations, there is little agreement about what needs to be done in the next tier of developing countries that want to follow the example of high-growth economies. Khan & Blankenburg (2009) assert that having the right political and conditions is necessary to generate growth-enhancing rents.

2.3.1 Political Conditions

Between political and institutional conditions necessary for successful implementation of learning rents, political setting plays a significant role. Without a stable political system which guarantees a government's ability to offer and discipline rents, rents can quickly become transferred rents leading to tremendous social cost. Political conditions are defined as the organizational power within the rent-seeking groups that allows government's management of rents (Khan, 2000b). Important conditions for industrial success include "the capacity of the State to pragmatically monitor and to make judgment about the performance, and the capacity to reallocate the subsidies and assets of non-performers," (Khan, 2000b). In other words, not only it is important that the State has the capacity to implement rents; it is also crucial to discipline the rent recipients in case targeted learning is not acquired. Political capacity additionally implies the state's ability to overcome the non-recipient's opposition to giving up their rents.

It is worth noting that certain political conditions may lead to the failure of rent management and thus hinder economic reform. For example, political fragmentation often leads to new social and political

alliances. The fragmentation of central political power tends to be detrimental to the creation of growth enhancing rents such as learning rents, since a weakened State is less capable of managing rents effectively. In such cases, “The rents intended to create incentives for technology acquisition became damaging rents that in some cases were much worse in their effect than if they had never been created and subsequently became growth reducing instead of growth enhancing” (Khan & Blankenburg, 2009). This may be due to the state’s inability to monitor and withdraw subsidies from non-performers. Khan & Blankenburg (2009) contend that because countries cannot avoid making mistakes in choosing the type of rents and its recipients even with sophisticated economic calculations, it is, therefore, more important that the state can “learn from [its] mistakes and rapidly correct them.” This is where the role of institutions comes into play.

2.3.2 Institutional Conditions

Institutional settings, interacting with politics, play an important role in making rents profitable. Appropriate institutional conditions depend on the technology that is most suitable for a given country’s comparative advantage (Khan, 2007). In addition, Chang and Cheema (2001) argue that successful institutions require that the state must first make extensive use of state-owned enterprises (SOEs) and secondly have control over the financial sector. Khan & Blankenburg, (2009) add that the state must also create intermediate institutions to “facilitate information flow between the bureaucrats and the corporate sector.”

Chang and Cheema (2001) also contend that the State must acquire control over banks and the financial sector, which will in turn “enable them to use their influence on bank credit decision both as a way of subsidizing learning activities and discipline non-performers.” The authors also stress the importance of intermediate institutions, which connect the state with the business sector. These intermediate institutions will, first, devise concrete policy plans once policy principles are decided at national level. Secondly, the institutions will possess knowledge of various industries and sectors, which

will allow them to devise ways to monitor members' compliance. Expressing similar opinions, Khan & Blankenburg (2009) point out that these "middle" institutions not only enhance policy enforcement and management, but also provide the State with "embeddedness" in a wider social context, which helps avoid potential political fragmentation. In the next chapter, the Vietnamese government's effort to correct market failures through its rent policies as well as the rent seeking relationship in Vietnam's motorcycle industry will be analyzed under this theoretical framework.

3 Industry Analysis

3.1 Overview Of Industry Development

3.1.1 Summary Of Government Policies From 1995-2005

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 introduced import subsidies policies by imposing trade barriers. However it also provided incentives to attract FDI to the industry (Fujita, 2007).
- **1998:** Prohibition of completely built-up units (CPU) and localization requirements were introduced. The local content policies set out that assemblers have to pay high import tariffs if the local content ratio was low and vice versa (Fujita, 2007).
- **February 2000:** New policy was enacted requiring all countries exporting motorcycle parts to Vietnam to submit quality certificates from their respective countries to prevent imports of inferior quality motorcycle parts into Vietnam. The policy was implemented in response to pressure from Japanese investors and quality problems with Chinese/Vietnamese motorcycles (Jalaluddin, 2002).

- **2001**: The government started to implement local content policies; existing assemblers were expected to maintain at least 60% local parts in their production. New policies also introduced new standards for products and assembling firms. In addition, the government banned imports of 20 identifiable motorcycle parts to protect its domestic industries, arguing that these parts can be localized (Jalaluddin, 2002).
- **September 2002**: The Vietnamese government introduced further controls on motorcycle parts by imposing import quotas. These policies were announced without prior notice. Since the allocated quotas were not sufficient for Honda and Yamaha, they had to suspend production temporarily until additional quotas were granted. This policy came under strong criticism among FDI investors (M. Fujita, personal communication, September 16, 2009).
- **2003**: Import quotas were abolished but the Vietnamese government then enacted 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 in effect constrained various Japanese companies from investing in capacity expansion. The policy came under severe criticism by the Japanese business community and it was finally abolished in April 2005 as the result of inter-governmental negotiation (M. Fujita, personal communication, September 16, 2009).
- **January 2003**: The government decided to abandon local content rules. This decision was primarily due to its effort to gain access to the WTO (Fujita, 2007).
- **2003-2005**: The government abandoned restrictions on motorcycle registration, specifically a rule, which required that each resident could register only one motorcycle. The place of registration for the motorcycle had to be the same as where the household is registered. There had also been another rule that had banned registration of new motorcycles in the inner districts of Hanoi (M. Fujita, personal communication, September 16, 2009).

3.1.2 Forecast Of Domestic And International Demand

3.1.2.1 Domestic Forecast

In the Vietnamese government's Master Plan for the Development of the Motorcycle Industry (2007) (the "Master Plan"), it is projected that there will be relatively high economic growth from now until 2020 given rising living standards and urbanization, as well as upgraded infrastructure. The saturation point of motorcycles for the country is expected to be reached between 2015 and 2020. The stock demand for motorcycles is estimated at around 24 million in 2010, 31 million in 2015 and about 33 million in 2020 (Master Plan, 2007).

Table 2: Stock Projection From The Motorcycle-To-Household Ratio

	2000	2005	2010	2015	2020
<i>Households (million)</i>	12.244	13.176	14.181	15.199	16.233
Urban	4.037	4.555	5.318	6.120	6.977
Rural	8.207	8.621	8.863	9.079	9.256
<i>Motorcycles per household</i>	0.52	1.19	1.69	2.00	2.00
Urban		2.32	3.08	3.34	2.65
Rural		0.59	0.85	1.10	1.51
<i>Motorcycle stock (million)</i>	6.387	15.670	24.108	30.398	32.465
Urban		10.562	16.600	20.423	18.511
Rural		5.108	7.508	9.975	13.954

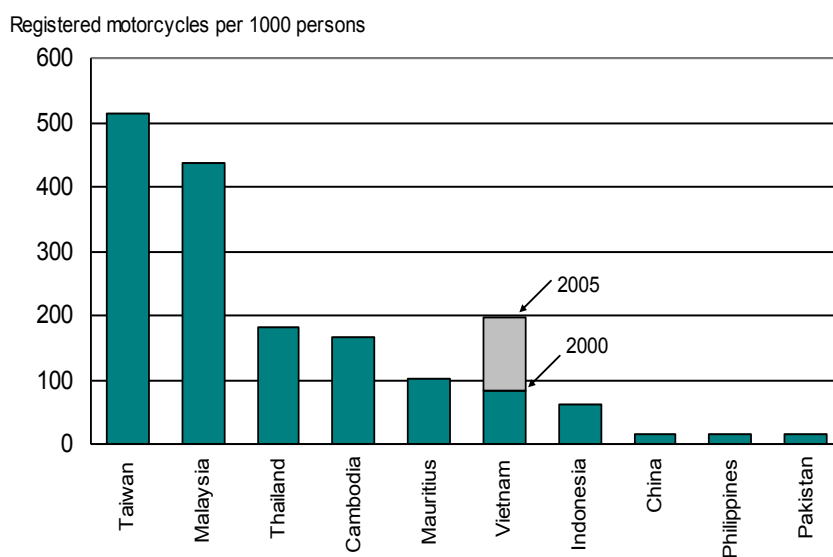
Source: The Master Plan for the Development of the Motorcycle Industry, May 2007.

3.1.2.2 International Forecast

Although Vietnam's motorcycle industry started to develop in the early 1990s, the country is currently the third largest producer in Southeast Asia after Indonesia and Thailand (Fujita, 2007). In 2005, following its motorcycle industrial development strategy, Vietnam began boosting the export of its

motorcycles. A report from the Institute for Industrial Policies and Strategies Institute (IPSI) showed that in markets such as China, Laos, Cambodia and Africa, where the motorcycle industry is underdeveloped and consumer taste is similar to that in Vietnam, the demand for low cost motorcycles with an engine displacement of less than 175cc is projected to remain high up until 2020 (vibforum.vcci.com.vn/news, Investment for Motorbike Industry: Is It Necessary?). IPSI also reported that developing countries are both the largest consumers and producers in the global motorcycle market, with an annual growth rate of 5-6 percent. The current global output of motorcycles is 43 million units per year, of which Asia accounts for 87 percent. This demonstrates that the motorcycle industry has huge domestic and international potential for Vietnam (Master Plan, 2007).

Figure 1: Motorcycle Holdings In Asia, 2000



Source: The Master Plan for the Development of the Motorcycle Industry, May 2007 cited from Fukuda, Nakamura, and Takeuchi (2004)¹.

3.1.3 Industry Constraints

Other than the challenge of rent allocation, which this paper will discuss below, the industry is also facing the problem that the Vietnamese government can no longer adopt an import-substitution strategy

by protecting and promoting local infant industries in the same way as in earlier decades due to its commitments to various trade agreements with, for example, the WTO and ASEAN (Mishima, 2005). The country has been compelled to join the global economic system and to conform to the principles of the market economy at a relatively early stage of industrial development. The opening of trade barriers with Vietnam's neighbours who have more advanced motorcycle industries has exposed domestic suppliers to tremendous challenges as imports of motorcycle parts flood the local market at lower cost and better quality. Fujita (2007) reports that the opening of trade barriers has opened new opportunities for imports of motorcycle parts, especially from China; however, it is increasingly becoming a challenge for the Vietnamese domestic suppliers.

3.2 Stages Of Localization Through Supporting Industries

Supporting industries play a vital role in the acquisition of technology. Mishima (2005) describes five stages of localization as a channel of technological transfer from FDI manufacturers as follows. In the first stage, local enterprises exclusively assemble complete knockdown motorcycles while engines and electrical parts are imported. At this stage, a small number of domestic suppliers are used for underbody parts such as tires, batteries and harnesses due to high transportation costs. In the second stage, assemblers switch from imported parts to in-house production of those parts, which in turn increases the localization ratio. As a result, localization rises but the number of part suppliers in a country does not increase significantly. However, at this relatively early stage, assemblers begin to produce engines internally. They often invite engine and electrical part suppliers to come to the country to support the assemblers (Mishima, 2005).

In the third stage suppliers of important parts such as engines begin to invest in the country voluntarily and independently from the request of the assemblers. At this stage, assemblers switch from in-house production to outsourcing of key parts such as engines, carburettors, brakes and so on. Knock down imports of motorcycles decrease significantly. Mishima (2005) observes that Vietnam remains

mainly in the second stage while transitioning into the third stage. In the fourth stage, virtually all kinds of suppliers, including those of electrical parts, set up business in the country. First-tier as well as second-tier suppliers such as metal pressing and sheet processing begin to arrive. The local subcontracting network becomes extensive and local suppliers play a more active part in the manufacturing process. At this stage, the number of suppliers for each component begins to increase, which leads to stiff competition among them. Since these suppliers have sufficient capacity to meet the assemblers' requirements for quality, cost and delivery (QCD), they compete to offer their products at low cost while maintaining high QCD standards. In the fifth and final stage, foreign producers begin to transfer research and development (R&D) to the country. A full-scale export strategy from the production base of that country begins to be implemented. Thailand is considered to be experiencing the beginning of the fifth stage in which, if realized, the breadth of its suppliers system will be further strengthened (Mishima, 2005).

3.3 Accidental Growth Enhancing Rents

In this section this paper will examine the Vietnamese government's efforts to generate technological catch-up and to allocate learning rents through three important phenomena that have decisively changed the dynamic of the motorcycle industry in the past decade. First, the transformation of the industry since Chinese motorcycle penetrated the Vietnamese market will be observed. Next, this paper will assess the making of learning rents, and the failure of Schumpeterian rents. Finally, a review of the effects of this transformation – how Vietnamese enterprises went from being local assemblers to parts suppliers for foreign lead firms – will be presented.

3.3.1 Transformation Of The Motorcycle Industry

In the mid 1990s, in the course of an effort to enhance industrialization and by choosing the motorcycle industry as a target industry, the Vietnamese government “launched an import substitution policy by erecting trade barriers and providing incentives to attract FDI in the motorcycle industry” (Fujita, 2007). Attracted by the large and growing market, several foreign motorcycle manufacturers began assembling incomplete knocked down parts of both new and used types of motorcycles imported from their countries. Despite high tariffs imposed on foreign motorcycles, new and second-hand Japanese brand motorcycles in particular continued to be imported to Vietnam. Even in an oligopolistic market, foreign motorcycle producers were able to set high prices that exceeded the high costs of operation which enabled them to enjoy substantial rents (Fujita, 2007).

Given the large potential market in Vietnam and the stockpiles of cheap motorcycles in the Chinese market, private business interests in China and Vietnam found an enormous opportunity to make huge profits due to the high prices of motorcycles in the Vietnamese market. The Vietnamese government’s policies allowed Chinese and Vietnamese businesses to exploit these opportunities by (1) implementing local content policies, (2) prohibiting completely built up units and (3) maintaining weak enforcement capacity. The local content policies stipulated that assemblers had to pay high import tariffs if the local content ratio was low and vice versa. In addition, prohibition of completely built up units gave rise to imports of knocked-down motorcycles, which were later assembled by local firms in Vietnam. The correlation of these three elements, especially the third element, effectively created accidental rents, which were quickly captured by Chinese and Vietnamese enterprises in the late 1990s. As of 2001, 51 local assemblers had emerged to provide services for Chinese motorcycle imports (Fujita, 2007).

The impact of imports of Chinese motorcycles was enormous. They reduced the price of motorcycles from 28 million dongs to around 10 million dongs in 2000 and further down from 8 to 6.3 million dongs in 2001 (Fujita, 2007). As a result, by 2001, Chinese motorcycles had captured over 70% of this significantly enlarged market. Fujita (2007) refers to this phenomenon as the “China shock.” By 2001, Vietnam had come to the end of the first stage of localization as described by Mishima (2005) by assembling knock-down vehicles from abroad and entered into the second stage, in which more parts

began to be produced in-house by foreign investors. In addition, technological transfer was still relatively limited and largely consisted of assembling imported motorcycles and manufacturing basic low value added components.

Table 3: Market Share By Assembler

Year	1998	1999	2000	2001	2002	2003	2004	2005
Total sales (In thousand)	302	475	1,686	1,983	2,058	1,280	1,437	1,641
Market Share (in per cent)								
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.

In Table 3, the market share of Chinese and Vietnamese enterprises are grouped together in “local and other” categories². According to the data, from 1999 to 2000, the market share in this group jumped from 23.8% to 75.2%, and again to 80.5% in 2001. This tripling clearly indicated the effect of market penetration by Chinese imported motorcycles, which transformed the learning processes of local assemblers. Note that the market share for this group quickly dropped after 2001. We will further observe the cause and effect of this recapturing of market share in the next section.

The Vietnamese government’s failure to enforce both the local content policy and prohibition of completely built up units in the period 1998-2001 allowed local assemblers to claim a false percentage of local content and to capture the benefits of rents which were not meant for them. This phenomenon created important accidental rents for Chinese and Vietnamese investors. These investors not only benefited from their increased market share, but also enhanced technology diffusion to local investors. Fujita (2007) commented that if the local content policy had been strictly enforced, Chinese

manufacturers would not have succeeded in penetrating the Vietnamese market. She added that during the years of the China shock, there was virtually no local content in imported Chinese motorcycles, which should have caused them to be subject to high import tariffs (Fujita, 2007). In reality, local assemblers evaded tariffs by claiming false local content ratios with the Vietnamese authorities. As a result, Chinese and Vietnamese investors accidentally captured the rents originally meant to stimulate transfer of technology by increasing local content mainly due to implementation failures by the Vietnamese government.

3.3.2 From Accidental Rents To Learning Rents

The China shock subsequently brought about new production chains led by newly emergent “local assemblers”, which enhanced the learning capacity for Vietnamese assemblers and parts suppliers. This phenomenon marked Vietnam’s entry into the second stage of localization described by Mishima (2005). Unlike Japanese assemblers, who produce motorcycles in a closed and integral production chain, in the late 1990s, Vietnamese assemblers had been producing copies of slightly modified versions of Japanese base models. Initially, the components of these imitated models were mostly general components in the sense that they were not customized to specific models and closely resembled the Chinese modular system. In addition, switching of suppliers took place frequently in the Chinese-Vietnamese production process, predominantly on the basis of price (Fujita, 2007). Since assemblers did not demand strict quality and delivery requirements from suppliers, exchanges of complex information between assemblers and suppliers did not take place. This type of production process in a domestic market is often referred to as “local Chinese chains”³. The relaxed quality standards of Chinese manufacturers (the lead firms) allowed imitation and copying to happen across the board as entry barriers and requirements were low. In addition to assembling Chinese knocked down vehicles, more local firms were participating in learning simple technology to manufacture components in-house for Chinese lead

firms. The second stage of localization was, therefore, realized and began to spread widely to local enterprises in the industry.

By 2001, given the drastic increase in market shares, some local assemblers had started to produce some parts in-house and to source some parts from Taiwanese, Chinese and local suppliers based in Vietnam⁴ (Intarakumnerd & Fujita, 2006). In-house production of parts was often achieved in collaboration with foreign, mainly Chinese firms (Intarakumnerd & Fujita, 2006). Among five local assemblers surveyed by Fujita (2006), three firms revealed the sources of their technology for the production of motorcycles and core components. All three firms mentioned China, while two of them also listed Korea and Taiwan, respectively, as additional sources. The local assembler with the largest market share had a joint venture with a Chinese firm for the mass production of motorcycle parts (Intarakumnerd & Fujita, 2006).

However, in 2002, the Vietnamese government started to enforce its local content policy and Honda introduced its new low-cost motorcycle, the Wave alpha, for the first time. By this time, Japanese investors aggressively tried to recapture the market. The Vietnamese assemblers, who emphasized learning through active acquisition of technological capabilities in production, branding and distribution, had largely stumbled facing difficulties in competing with powerful Japanese lead firms (Ohara & Sato, 2008). The few local assemblers that performed well were the ones that pursued low prices by relying on Chinese counterparts for the production of parts. These assemblers were not active in building either their own brands or distribution networks (Ohara & Sato, 2008). Nevertheless, there were critical improvements in the interdependent relationship between Chinese and local enterprises. Fujita's (2007) field research in 2005 reported that customer-supplier relationships between these two groups partially moved away from "on-the-spot" market based transactions to a mutual interdependence relationship which was mainly based on the knowledge of local assemblers about the Vietnamese market and the Chinese suppliers' capabilities in industrial design and manufacturing.

The period of the China shock from the late 1990s until 2002 was particularly instructive for the learning process in the industry. During this time, the rents provided to Japanese investors, which are

characterized as Schumpeterian rents, largely failed while accidental rents subsequently led to the emergence of local Chinese production chains. This period marks the transformation of accidental rents into learning rents for Vietnamese enterprises. Because learning is partly imitation, Chinese technology, although with low added value and often much less sophisticated than Japanese technology, was arguably more appropriate for the learning stage of development in Vietnam, given the low skilled and inexperienced workforce and the lack of sufficient financial support from the government to acquire and transfer technology at lower cost.

There are two main lessons to be drawn from the transformation of these learning rents. First, the apparent market failure in the capital market as well as ineffective skills training⁵ was partially responsible for the collapse of many newly emerged local suppliers who invested in more technological upgrading in their production chains. Secondly, the accidental rents during the early developing period of the industry had resulted in important learning capacities for domestic assemblers who later took part in the procurement chain within the industry. Although this learning period was short, as it only lasted from 1998 to 2002, the experience played a key role in the formation and development of local assemblers and suppliers. The skills and technology transferred by Chinese investors, although limited, were essential to the promotion of local industry and allowed some domestic suppliers to later take part in the production chain of Japanese and Taiwanese investors. This transformation will be further discussed in the next section.

3.3.3 The Failure Of Schumpeterian Rents

Before the penetration of Chinese motorcycles into the Vietnamese market, Japanese lead firms were not under strong pressure to increase local content. In the late 1990s, Japanese firms sourced parts – mostly from abroad, especially from Japan and Thailand – as incomplete knock down kits as well as from their in-house production (Fujita, 2007). Accordingly, only a few local suppliers, mostly state-owned enterprises, were their part suppliers. Although there were numerous local firms engaged in the

production of “aftermarket” or replacement parts, these firms were largely outside the procurement networks of foreign lead firms⁶.

What Vietnam struggled with during this period was to achieve technological transfer from Japanese investors while providing to them Schumpeterian rents, mostly through the protection of intellectual property rights and other subsidies. The government wanted to encourage high technology investors to invest value added FDI in Vietnam together with providing training to Vietnamese workers as part of a learning-by-doing process. The provision of Schumpeterian rents for foreign investors was in effect a form of learning rents because it intended to bring in skills, training and foreign technology, which would be slowly disseminated to Vietnamese workers. However, when the rents were captured and Japanese investors took over close to 75% market share in 1998 according to the Master Plan (2007), little technology diffusion and learning took place.

The Japanese investors largely argued that the Vietnamese labour force was not competent enough to learn and adapt to their technology. They also pointed to unstable market conditions caused by policy failures of the Vietnamese government that led to the China shock phenomenon. It is possible, however, that the real problem was that Japanese investors did not, in the first place, have a very good system for technological transfer to their local suppliers. The Japanese investors misunderstood that the Schumpeterian rents provided to them through various means of protections were, in fact, a form of learning rents intended to finance the learning-by-doing process. In reality, these rents were not intended to protect the rights of Japanese investors, but to give them the subsidies that are necessary for in-house training (M. Khan, personal communication, August 10, 2009). Without this motive, Japanese investors would not have obtained the substantial rent benefits that they received from the mid to late 1990s and from 2002 onward.

Table 4: Part Procurement Structure Of Japanese Motorcycle Assemblers , 2006

(in per cent for each component items)

	In-house %	Domestic purchase %				Imports %					
		JP	TW	VN	Other	JP	TH	Indo	Mal	TW	Other
All parts	2.6	28.1	28.4	10.6	4.0	2.3	19.5	2.3	0.7	0.7	1.0
Engine	6.3	14.3	16.1	5.4	0.0	2.7	47.3	4.5	1.8	0.9	0.9
Exhaust	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Body	0.8	32.0	44.3	9.0	9.0	0.0	3.3	0.0	0.0	0.8	0.8
Electric	0.0	75.0	7.1	10.7	3.6	0.0	0.0	3.6	0.0	0.0	0.0
Other	0.0	15.2	24.2	36.4	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 is meant by ‘Other’.)

Table 4 presents the percentage of local suppliers that participate in the procurement chain for Japanese investors in 2007. As recent as the early 2000s, local suppliers played only a minimal role in complex component manufacturing, even though the localization ratio was extremely high. For example, Vietnamese assemblers only provided 5.4% of engine parts, 9% for electric and 10.7% for body parts. They also did not supply any exhaust systems to Japanese lead firms. The table largely qualifies this author’s argument that, although the localization ratio is high in Japanese motorcycles, the diffusion of high technology components remains limited.

3.3.4 Transformation of Japanese Production Chains

In 2002, Japanese firms, seeing their market share significantly diminished, made serious attempts to recapture the market. Consequently, the Japanese chains of production underwent a significant transformation, while the local Chinese chains started to take on a clearer shape (Fujita, 2007). There are three important factors underlying the transformations within the Japanese chains. First, the transformation was due to the government’s local content policy, which was originally introduced at the

end of 1998 but came into effect only at the beginning of 2001. Secondly, it was necessary to reduce production costs in order to compete with Chinese motorcycles assembled in Vietnam. Lastly, Japanese investors benefited from an increased volume of production as they recovered market share in an enlarged market. All of these factors encouraged an increased use of locally sourced parts including those of local suppliers. Table 5 below illustrates changes in market share from 2001 to 2006 between FDI assemblers and Chinese/Vietnamese assemblers⁸ in greater detail

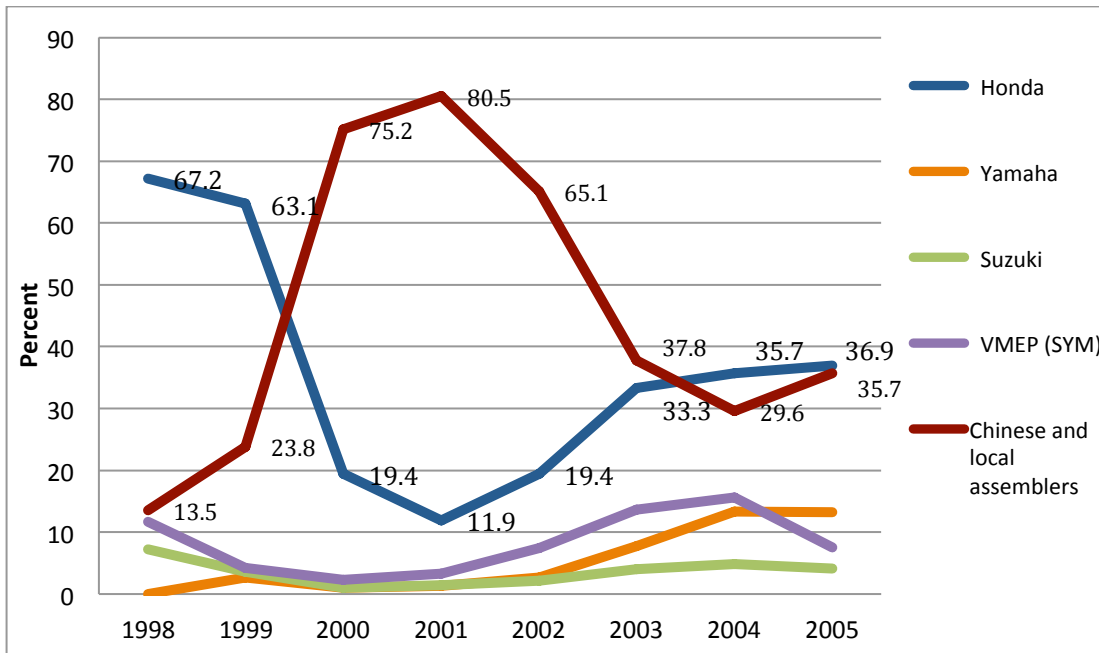
Table 5: Development Of Motorcycle Assembly Production

3.3.4.1.1.1.1.1	2001	2002	2003	2004	2005	2006
Newly registered motorcycles (in thousands)	2,485.6	1,818.6	1,789.6	2,138.8	2,188.4	2,553.6
Scooters	22.43	82.17	101.47	180.98	192.32	n.a.
Manual transmission	2,463.17	1,736.43	1,688.17	1,957.81	1,996.10	n.a.
Market share (by %)	100%	100%	100%	100%	100%	100%
<i>FDI assemblers</i>	12.94%	42.37%	47.59%	51.71%	53.55%	54.53%
Honda	6.84%	21.02%	23.68%	23.85%	28.63%	31.57%
Yamaha	0.92%	3.78%	6.77%	9.80%	11.72%	13.74%
Suzuki	1.04%	2.31%	2.88%	3.59%	3.89%	1.69%
VMEP	3.18%	13.55%	11.80%	12.02%	7.75%	5.87%
Other	0.97%	1.71%	2.47%	2.46%	1.56%	1.65%
<i>Local assemblers</i>	87.06%	57.63%	52.41%	48.29%	46.45%	45.47%
0-10,000 units/year (6 firms in 2005)	8.07%	10.20%	12.59%	19.35%	22.42%	27.09%
10-40,000 units/year (10 firms in 2005)	40.54%	31.10%	30.64%	24.57%	13.43%	7.35%
40-200,000 units/year (14 firms in 2005)	21.07%	10.03%	9.16%	4.20%	8.83%	5.46%
More than 200,000 units/year (in 2005)	17.38%	6.29%	0.03%	0.16%	1.77%	5.57%

Source: Retrieved from the Master Plan (2007) compiled from Vietnam's register data.

Figure 2 below by Nguyen (2006) illustrates the movement of the recapturing of market share by foreign investors. Both Honda and Chinese investors experienced drastic fluctuations from 1999 until the beginning of 2003.

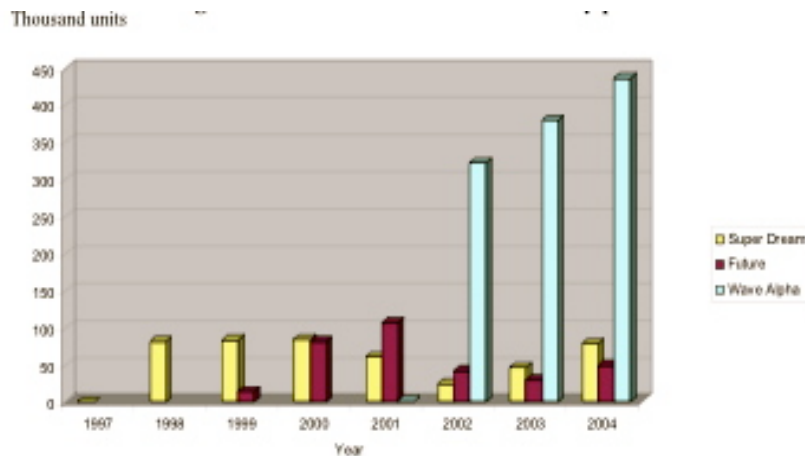
Figure 2: Market Share of Major Foreign Motorcycle Firms in Vietnam



Source: Author’s adaptation from the Ministry of Industry and Trade (2007)

In that same year, Honda launched its first low-cost motorbike model, the Wave alpha, which was priced at 10.8 million dong, nearly one-third of the cost of previous models and only slightly more expensive than Chinese motorcycles. Figure 3 below explains the success of Wave alpha in comparison with its two most popular predecessors, Super Dream and Future. Not only did Wave alpha expand Honda’s market, it also allowed Honda to regain a large portion of the market share in the motorbike industry as we can see in figure 2 above.

Figure 3: Production Volume By Honda Products Demonstrated



Source: Nguyen (2006).

In developing the new low-priced model for the Wave alpha, Honda imposed substantial cost reduction targets and even announced that it was ready to switch suppliers as long as the alternative suppliers fulfilled the required standards and their costs were lower than those of the existing ones, regardless of nationality (Fujita, 2007). Consequently, the number of local suppliers in the Japanese chains increased.

The first tier suppliers initially responded to the Japanese lead firm's pressure for cost reduction by replacing the imported parts with parts produced by Japanese second tier suppliers in Vietnam and eventually by replacing the parts sourced from the Japanese second-tier suppliers with parts sourced from Taiwanese or local second-tier suppliers (Fujita, 2007). 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. Such transformation marked the industry's entry into the third stage of localization in accordance with Mishima's (2005) framework and constituted a significant step in the technological upgrading achieved by local suppliers.

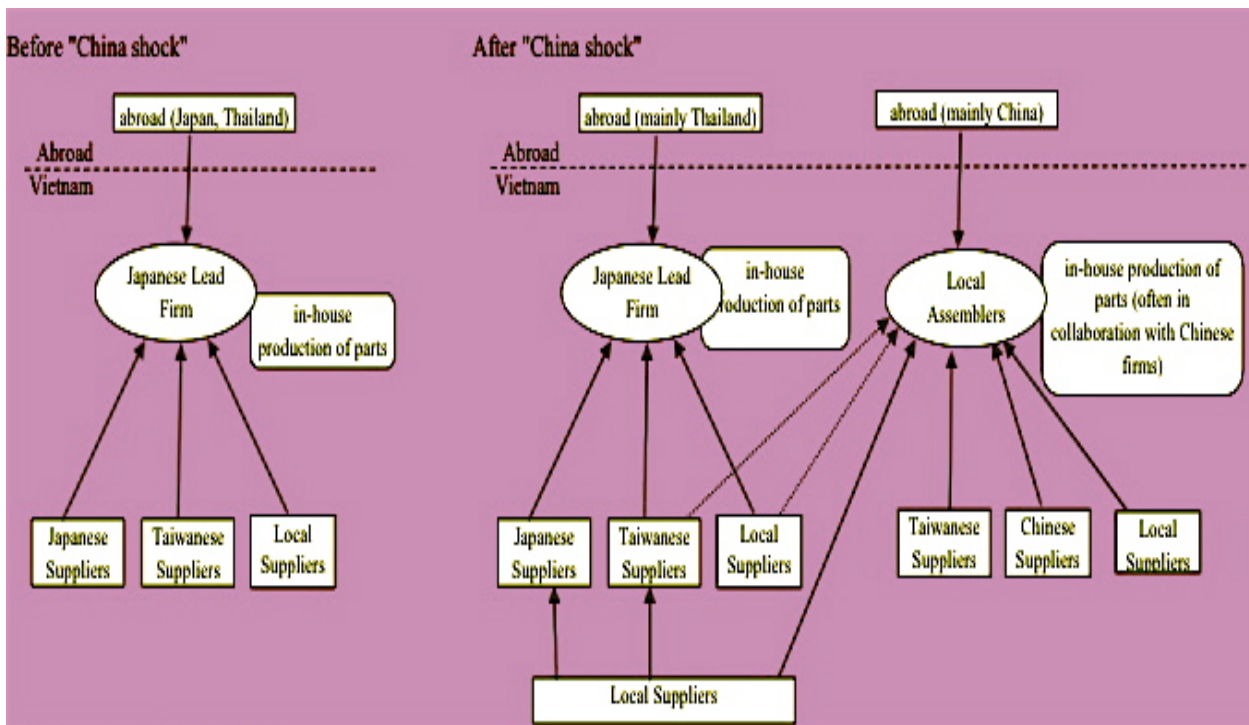
This analysis has so far asserted that the Schumpeterian rents that the Vietnamese government provided to Japanese and Chinese investors were predominantly unsuccessful and failed to fulfill the government's intention to enhance learning opportunities for local enterprises. Nevertheless, the

accidental rents provided to Chinese and Vietnamese investors as discussed above eventually created the China shock that transformed Japanese manufacturing production chains. The new learning capacity from these rents also created new opportunities for Vietnamese suppliers to enter into the production of motorcycle components for Japanese and Taiwanese investors. The next section will explore the types of technological upgrading in both the Japanese and Chinese production chains in greater detail.

3.3.5 From Local Assemblers To Part Suppliers

Prior to the China shock, there was no clear distinction between a handful of local firms, which had sufficient financial resources and the capabilities necessary to be incorporated into the Japanese and Taiwanese value chains (Fujita, 2007). The China shock inadvertently created a huge demand for standardized motorcycle parts without stringent quality requirements. The rising demand for low cost suppliers eventually prompted local firms previously producing aftermarket parts, as well as firms engaged in related industries, to enter into the production of motorcycles parts (Fujita, 2007). In time, some of these suppliers in the local 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 QCD standards. This is due to the Japanese lead firms exercising substantial control and supervision over their local suppliers (Fujita, 2007). Figure 4 below illustrates the how local suppliers took more active roles in the procurement chain of Japanese, Chinese and Taiwanese investors after the creation of accidental rents, which led to new learning capacities.

Figure 4: The Transformation Of Value Chains Within Vietnam’s Motorcycle Industry



Source: Prepared by Fujita (2007); reproduced with the author's permission

Fujita's (2007) field research in 2004 and 2005 revealed case studies of six local suppliers who took part in different levels of procurement with Japanese lead firms. In the survey, there are two first tier suppliers for Honda Vietnam, both of which are state-owned enterprises. These suppliers first started their production of motorcycle components in 1998 and 1999, respectively. Like other state-owned enterprises, they were originally engaged in the integrated production of a wide variety of products in small quantities. Once they had become first tier suppliers, they began to specialize in specific products and production processes as designated by Honda. Fujita (2007) also surveyed two second-tier suppliers for Japanese assemblers. These companies originally manufactured replacement parts but started to supply components for local assemblers around 2000, and subsequently became second tier suppliers for Japanese and VMEP assemblers. These second-tier suppliers also came to specialize 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 the author were suppliers to local assemblers. Unlike the four suppliers mentioned above, these suppliers produced wide varieties of components and were engaged in various production processes. Their sales and production had expanded

until 2002. However, at the time of interview in 2005, both of these suppliers were facing drastic declines. Given the changes in the market environment, one of the suppliers 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). The profile of six above-mentioned local suppliers is featured in the table below

Table 6: Profile Of Six Local Suppliers

	First Tier Suppliers of Japanese Motorcycle Manufacturers		Second Tier Suppliers of Japanese Motorcycle Manufacturers		Suppliers to Local Assemblers	
	A1	A2	B1	B2	C1	C2
Establishment	1969	1968	1988	1986	1987	1977
Start of Producing Motorcycle Parts	1998	1999	Replacement Parts: 1988; OEM: 2000	2001	Replacement Parts: 1990; OEM: 1999	2002
Sales (billion VND)	205	66	24	n.a.	58	17
Share of Sales from Motorcycle Parts	46%	53%	n.a. (Sales to the Taiwanese supplier accounted for 50% of total sales)	80%	60%	16%
Types of Motorcycle Parts (Production Process)	Metal Stamped Parts (Stamping)	Sprockets (Machining)	Plated Parts (specialized in plating)	Brake Components (Die-casting)	Cylinder, Piston Rings, Valves, etc.	Pistons, etc.
Customers of Motorcycle Parts	Japanese Motorcycle Manufacturers and Component Suppliers	Japanese Motorcycle Manufacturers, VMEP	Taiwanese Suppliers (second tier to Japanese assemblers); Local Assemblers	Japanese Supplier (second tier to Japanese assemblers); VMEP	Local Assemblers	Local Assemblers
Other Products	Stainless Steel Kitchenware, Interior Decoration Items, etc.	Diesel Engines, Agricultural Machinery and Parts	Components for Electronic Products	Replacement Parts	Replacement Parts	Agricultural Machinery and Components

Source: Fujita (2008), reproduced with the author's permission⁹

By comparison, the firm-supplier relationship within the local Chinese chains was largely market-based and involved on-the-spot transactions in which the suppliers basically produced as they received orders. This was because parts used by local assemblers were standardized and were based on the same base model with modular characteristics. It was also due to the lack of both capabilities and resources among the local assemblers to monitor product quality of their part suppliers (Fujita, 2007). In making

orders, local assemblers provided samples without detailed specifications or drawings. These assemblers also frequently switched suppliers rather than assisting their suppliers at the time in improving the quality of their products. In the rare cases of assembler-supplier collaboration, they tended to face difficulties due to the insufficient capacities of the assemblers to assist the suppliers as well as the suppliers themselves (Fujita, 2007).

The implementation failure of local content policy by the Vietnamese government played a crucial role in the market penetration by Chinese manufacturers, which soon established Chinese value chains in Vietnam. While the local Chinese assemblers lacked the capacity to monitor and assist the local suppliers, the additional mobilization and appropriate modular technology effectively nurtured small-scale local firms at a relatively early stage of development and helped move local assemblers to the next level, i.e. producing parts for foreign assemblers. This was a positive experience and it can be taken to indicate that certain rents, even if they are incurred by accident, can effectively induce learning and technological upgrading in the motorcycle industry.

4 The Success and Failure of Governance and Policy Options from a Learning Rent Perspective

Our analysis so far has suggested that the motorcycle industry in Vietnam has successfully attracted foreign direct investment from abroad and has achieved some important technological upgrading in the past 15 years. When the prohibition of CPUs and the introduction of the localization requirement as discussed above were enacted in 1998, the intention was to provide various rents to local enterprises and to FDI investors in order to encourage foreign transfer of technology by establishing manufacturing lines and employing local suppliers. This policy, however, created an oligopolistic market for Japanese and some Taiwanese producers by keeping market prices extremely high. Given the lack of competition, foreign investors benefited from tremendous rents until Chinese motorcycles flooded the Vietnamese market.

Not only did the Schumpeterian rents not motivate Japanese manufacturers to transfer technology to local suppliers, these manufacturers ended up using foreign suppliers for their parts or for manufacturing the components in-house. The investors claimed that Vietnamese suppliers could not meet the necessary quality standards. In reality, however, that argument was misleading. The rent policy was intended to provide additional subsidies to Japanese manufacturers so they would provide training to Vietnamese workers through learning-by-doing, as well as gradually transferring technology to local suppliers. This learning process and transfer of technology largely did not take place until Chinese low-cost motorcycles broke into the Vietnamese market.

In 2001, the Vietnamese government introduced a local content policy and new standards on products and motorcycle assembling firms. The policies effectively transferred rents to Japanese manufacturers who could easily meet the requirements to capture additional subsidies. At the same time, these investors continued to demand better mechanisms to protect and enforce their trademark and intellectual property rights. After 2002, Japanese manufacturers successfully recaptured substantial market shares from Chinese-Vietnamese producers as some forward looking local suppliers went out of business due to market competition and lack of financial resources.

The complex rent seeking activities within the motorcycle industry in the past decade suggests that the Vietnamese government was largely unsuccessful on various counts. First of all, not only did the government fail to recognize the importance and positive effects of technological acquisition imparted by Chinese technology, it also did not provide local suppliers with the finance and technology needed to continue upgrading. Moreover, the government mistakenly reallocated the rents away from local suppliers by following the demands of powerful groups of Japanese and other foreign investors. As a result, Japanese manufacturers began to regain market share, which caused the majority of local assemblers and suppliers to go out of business. Only a fraction of local businesses survived and became first and second tier parts suppliers for foreign lead firms¹⁰. From this analysis of the triangular rent seeking relationship between Vietnam, Japan, and China, we can reach two important conclusions.

First, in order for rent policy to successfully become growth enhancing, government subsidies must take place with compulsion – a set of conditions such that foreign investors know that the requirement for obtaining rents is investment in local learning and technology. This type of compulsion must come either from the government or from market forces. Contrary to the intentions of the Vietnamese government, the presence of Schumpeterian rents in the motorcycle industry and other subsidies did not guarantee that the Japanese investors would invest in learning and transfer of technology to local enterprises.

In reality, the compulsion that existed did not come from the Vietnamese government directly, but from the free market, mainly due to the accidental entry of Chinese investors. One may ask why this is the case. It could be either that the Vietnamese government did not set any conditions, or that the conditions were set but that the government lacked the political and institutional capacity to enforce them. In addition, in order for Schumpeterian rents to become learning rents, the Vietnamese government must be able both to set conditions and to have the capacity to ‘compel’, which at the very least requires the ability to withdraw the rents (M. Khan, personal communication, August 10, 2009). Consequently, Vietnam’s institutions and political conditions must be compatible. The Vietnamese government clearly did not have this capability to the necessary degree.

Secondly, the origin and effect of accidental rents in Vietnam’s motorcycle industry were particularly instructive for the country’s industrial success. The Chinese investors captured the rents created for assemblers who met the domestic content requirements because they managed to bribe their way into the system. It was an accidental allocation of rents due to the State’s failure to implement its localization policy and to avoid corruption¹¹. Thus, Japanese investors were pressured to localize more of their contents as well as to introduce a low-cost model, the Wave alpha, which subsequently transferred more technology and learning opportunities to local suppliers.

There are a few potential explanations for the persistent existence of these accidental rents from the late 1990s until 2001. They could be due to (1) corruption, (2) a deliberate policy by the Vietnamese government, (3) political pressure from the Chinese government, or (4) pressure from domestic importers

who want to capture the rents. The actual cause is unknown and is a potential area for further research, but the effect of these accidental rents was particularly significant. In this case, it introduced competition to a local market and sped up the transformation of production chains of both Japanese and Chinese/Vietnamese investors.

Our research indicates that there has been technological upgrading due to the transformation of accidental rents to learning rents. However, this system of transformation is problematic as it occurred randomly and the benefit captured is relatively small and short-lived. It is important for the Vietnamese government to recognize that technological transfers from Chinese investors; although, appropriate for Vietnamese imitation and learning at an early stage, did not add a great amount of value. Local suppliers and the government should continue to seek for high technology, as it would be far more likely to provide Vietnam with the type of sustainable industrial progress necessary for long-term economic growth.

In the long run, the Vietnamese government must make the right policy decisions in relation to rents so that subsidies would enhance learning and technology acquisition. The government needs institutions and agencies that could (1) monitor performance, (2) negotiate with foreign investors on rents and (3) renegotiate rent allocation when necessary. Along with the ability to target growth-enhancing rents, the Vietnamese government also needs to create appropriate political conditions so that each of these policies can be successfully implemented. The failure to provide institutional and political compulsion to enforce Schumpeterian rents and learning rents is the root of the Vietnamese government's failures of the past decade; it is the focal point where the government of Vietnam should place particular attention in the future.

LIST OF TABLES AND FIGURES

Tables

Table 1: Major Foreign Motorcycle Firms In Vietnam

Table 2: Stock Projection From The Motorcycle-to-household Ratio

Table 3: Market Share By Assembler

Table 4: Part Procurement Structure Of Japanese Motorcycle Assemblers, March 2007

Table 5: Development Of Motorcycle Assembly Production

Table 6: Profile of Six Local Suppliers

Figures

Figure 1: Motorcycle Holdings in Asia, 2000

Figure 2: Market Share of Major Foreign Motorcycle Firms in Vietnam

Figure 3: Production Volume By Honda Products Demonstrated

Figure 4: The Transformation Of Value Chains Within Vietnam's Motorcycle Industry

FOOTNOTES

1. “Compiled from Atsushi Fukuda, Fumihiko Nakamura, and Kenzo Takeuchi, “Current Situation of Motorcycle in Metropolis of Southeast Asia and its Issues,” *Kokusai Kotsu Anzen Gakkaishi* (Journal of International Association of Traffic and Safety Sciences), vol.29, no.3, Dec. 2004 (in Japanese). However, numbers in the text should be treated with care since international comparison data are somewhat inconsistent.” (Master Plan, 2007)
2. This is due to most Chinese companies refusing to take part in the government survey and interviews.
3. 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.
4. Some local assemblers even achieved a local content ratio of 90% while the average was 63% in 2003 (Fujita, 2007).
5. See Khan (2009) “Anti-corruption and Governance Reforms as Economic Growth Strategies for Vietnam: Lessons from East Asia” for in depth discussions of Vietnam’s market failures in the capital and labor markets
6. According to Fujita’s (2007) interview, numerous local small-scale firms and households were engaged in the production of aftermarket parts, including piston, piston rings, cylinders, gaskets, crankshafts, valves and sprockets. Some of these firms and households have been engaged in machinery parts since the central planning period (before 1986) and other and entered after the late 1980s as the demand for motorcycle parts increased.
7. Notes from the Master Plan (2007) “JP: Japan, TW: Taiwan, VN: Vietnam, TH: Thailand, INDO: Indonesia, MAL: Malaysia. These percentages are based on the questionnaire on supply sources of 82 part items conducted on three Japanese motorcycle assemblers in Vietnam (see Appendix to Chapter 2). The results are combined over all assemblers. Since each part item may contain more than one individual

part, and there may be more than one supplier for each part item, numbers in the table are not proportional to the number of individual parts or their value.”

8. Chinese assemblers are grouped in the “Local assemblers” group.
9. The survey was conducted by (1) Vietnam Institute of Economics and Vietnam Academy of Social Science as commissioned by the Institute of Developing Economics in 2004 and (2) Fujita (2008) interviews.
10. According to Fujita’s (2008) survey, most of these successful suppliers who later became first and second tier suppliers are state-owned enterprise. This further augmented the Vietnamese government’s failure to correct the externalities in learning and credit markets.
11. It is probable that the allocation of rents to Japanese investors could not be enforced by the state partially because the state was corrupted.

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