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**Characteristics of the Vietnamese Business Environment:
Evidence from a SME Survey in 2005**

by

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1 Introduction

Vietnam has come a long way since the *Doi Moi* reform process was initiated in 1986. The past 20 years have witnessed one of the best performances in the world in terms of both economic growth and poverty reduction. People's living standards have improved significantly, and the country's socio-economic achievements are also impressive from a human development perspective. Wide-ranging institutional reform has been introduced, including a greater reliance on market forces in the allocation of resources and the determination of prices. A shift from an economy dominated by the state and cooperative sectors to a situation where the private sector account for a relatively high proportion of GDP can also be noted. Important strides have been made over a relatively short time span to further the transition from a centrally planned to a socialist market economy.

However, unemployment and underemployment is a growing problem in Vietnam. Broad based economic development, particularly employment and income generation, stand out as perhaps the most crucial challenge facing policy makers in Vietnam in the coming years. This is so in urban areas where an increasing share of the population lives and works, as well as in the rural areas. In rural areas in particular, economy diversification and growth of labour-intensive industry, will be crucial to sustainable livelihoods. Small and medium scale enterprises (SME) have been a dynamic force for labour intensive rural growth in other Asian countries, and they have been valuable not only in creating employment but also in increasing competition in local markets and in generating much needed savings. However, Vietnam has yet to tap this potential despite a widely accepted view that the SMEs should be a critically important vehicle in rural transformation and in creating off-farm employment opportunities. In urban areas, SMEs have ever since the launching of the *Doi Moi* played an increasingly important role in economic transformation and will no doubt continue to do so, as evidenced by the spurt in establishing new enterprises following the approval of the new Enterprise Law in 2000.

The potential and significance of SMEs in Vietnam stand in contrast with the evident lack of understanding of the characteristics, dynamics and constraints faced by this sector. Three surveys carried out in collaboration between the Institute of Labour Science and Social Affairs (ILSSA) in the Ministry of Labour, Invalids and Social Affairs (MOLISA) remedied this situation during the first years of the *Doi Moi* period. The approval of a new Enterprise Law in 2000 provided – as

already noted – further impetus to the development of the non-state enterprise sector. It has also created a firmer legal basis for SME operations. The previous enterprise surveys done were characterized by a move from market fragmentation towards market integration and gradually increasing competition. In this initial stage towards the establishment of an incipient market economy SMEs faced a rapidly changing environment full of challenges, but also full of opportunities for windfall gains. Due to the exceptional circumstances during this period, it cannot be used in any simple way as a basis for understanding and addressing the challenges and constraints faced by Vietnamese SMEs at the beginning of the 21st century.

On the other hand, the existence of information about enterprises that have been followed since the beginning of the 1990s, and which could be revisited, provides a unique possibility for obtaining deeper insights into the dynamics of the sector and the possibilities of supporting its further development in an effective manner. It was therefore decided to carry out a fourth survey round during the year of 2005, covering some 2,739 non-state manufacturing enterprises in the three urban areas (Hanoi, Hai Phong and Ho Chi Minh City) and seven rural provinces (Ha Tay, Phu Tho, Nghe An, Quang Nam, Khanh Hoa, Lam Dong and Long An). The survey was implemented by ILSSA with financial support from Danida in collaboration with the Department of Economics at the University of Copenhagen.

This document provides background information on the fourth round of the “Small and Medium Scale Enterprise Survey in Vietnam” and selected summary statistics from the survey conducted during 2005. Information is provided on the survey design and implementation, the content of the questionnaire, and data processing activities.

2 Sampling, Implementation and Links to Previous Surveys

2.1 Sampling

Due to sampling considerations we need information on the population of non-state manufacturing enterprises in the 10 selected provinces. For this we rely on data obtained from two sources: The Establishment Census from 2002 (GSO, 2004) and the Industrial Survey 2002-2005 (GSO, 2005). From the Establishment Census we obtained the number of individual business establishments

(registered and non-registered)² that do not satisfy the conditions stated in the Enterprise Law. In the following we refer to this category of enterprises as household enterprises.

Table 2.1: Overview of the “population” of non-state manufacturing enterprises

	Household enterprise	Private/sole proprietorship	Partnership/ Collective/ Cooperative	Limited liability company	Joint stock company	Total
Ha Noi	16,588	208	98	1,817	306	19,017
Phu Tho	17,042	37	14	59	17	17,169
Ha Tay*	23,890	58	41	91	11	24,091
Hai Phong	12,811	64	66	192	41	13,174
Nghe An	22,695	80	35	107	15	22,932
Quang Nam	10,509	61	10	36	4	10,620
Khanh Hoa*	5,603	150	13	85	8	5,859
Lam Dong	5,268	112	13	30	5	5,428
HCMC	34,241	1,144	82	2,282	174	37,923
Long An	8,050	154	10	37	4	8,255
Sample total	156,697	2,068	382	4,736	585	164,468

Source: The Real Situation of Enterprises (GSO, 2005) and Results of Establishment Census of Vietnam (GSO, 2004)

Note: Includes only non-state manufacturing enterprises. Data for joint ventures are excluded.

Figures for Ha Tay has been downwards adjusted and Khanh Hoa upwards adjusted after a series of consultations with both central and local government officials

We combined this information with information on enterprises registered under the Enterprise Law from the Industrial Survey. This provides us with additional information on private, collectives, partnerships, private limited enterprises and joint stock enterprises. Joint ventures have been excluded from the sampling framework due to the high nature of government and foreign involvement (often unclear) in such ownership structures.

The total number of manufacturing enterprises has increased significantly in all provinces during the 1990s, Khanh Hoa being the exception. However, checking the official data for Khanh Hoa with the General Statistical Office (GSO) resulted in an upward adjustment in the number of registered household enterprises for the year 2002.³ Moreover, in the official statistics Ha Tay accounts for around 10 percent of total manufacturing enterprises in Vietnam. This does not seem plausible. We have therefore adjusted downward the number of household enterprises in Ha Tay by taking an

² A registered individual business establishment is a enterprise that has a Business Licence issued by a District Business Register Office. A non-registered individual business establishment has not obtained such licence.

³ Around 0.8 percent of nation-wide household manufacturing enterprises are located in Khanh Hoa according to the GSO. Given that the total number of household manufacturing enterprises is 700,309 in the economy, the total number of household manufacturing enterprises in Khanh Hoa has therefore been upward adjusted to a total of 5,603 household enterprises (from 4,777).

average of the household manufacturing enterprises in the neighbouring provinces of Ha Noi. This leads to a total of 23,890 household enterprises, which is used as the household enterprise “population” for Ha Tay when calculating the optimal sample size below. Note that the selected provinces cover around 30 percent of the manufacturing enterprises in Vietnam. Approximately 95 percent of the enterprise population is registered as household enterprises.

Following Cochran (1977) and Levy and Lemeshow (1999) we use the formulas below for the determination of the necessary sample size n for a different combination of levels of precision, confidence, and variability.

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}} \quad (1)$$

where N is the population size. Assuming that a margin of error d has been specified, and z is the normal deviate corresponding to the allowable probability that the error will exceed the desired margin, n_0 can be expressed as follows:

$$n_0 = \frac{z^2 p(1-p)}{d^2} \quad (2)$$

where p is the estimated proportion of an attribute that is present in the population.

In our case we wish to create a stratified random sample and therefore estimate the sample size for the smallest group (Lam Dong with a population of manufacturing enterprises of 5,428), assuming maximum variability ($p=0.5$), a 95% confidence level and $\pm 10\%$ precision. This results in a sample size of 95 for Lam Dong. Using the $((n\{h\})/(N\{h\}))$ ratio for Lam Dong we are able to calculate the number of enterprises needed in each province. The results are reported in Table 2.2.

Table 2.2 shows that 2,864 enterprises were sampled. However, some enterprises sampled from the official lists could not be found. Due to enterprise mobility and because of the fact that we track survivors from previous surveys the data includes enterprises chosen for interview in one province which since the update of the official lists have changed location. This explains why the number of enterprises interviewed in HCMC is larger than the one selected from the official enterprise records. All in all, some 2,821 enterprises were interviewed.

Table 2.2: Number of Enterprises Sampled and Interviewed

	Sampled	Interviewed in 2005	Interviewed in 2005 (only non-state manufacturing)	Interviewed in 2002
Ha Noi	331	311	299	236
Phu Tho	299	283	276	123
Ha Tay	419	400	395	247
Hai Phong	230	217	204	213
Nghe An	399	394	385	..
Quang Nam	185	176	171	125
Khanh Hoa	102	102	100	..
Lam Dong	95	94	87	..
HCMC	660	701	693	223
Long An	144	143	129	225
Total	2,864	2,821	2,739	1,392

Note: One enterprise located in Da Nang (food processing) was interviewed. In this report the enterprise figures under "Quang Nam".

Some enterprises report (when interviewed) that they are not in manufacturing (82 cases) even though official records have them listed as producers of manufacturing goods. Excluding these enterprises leaves us 2,739 enterprises. For comparison, column 4 in Table 2.2 shows the number of enterprises interviewed in the previous survey in each province (note that all interviewed enterprises are included in the survival tables reported below).

In all areas the samples were stratified by ownership forms to ensure the inclusion of all non-state types of enterprises, including household, private, partnership/collective, limited liability companies and joint stock enterprises. Table 2.3 documents the number of non-state manufacturing enterprises interviewed in each ownership form category. First of all, we see that only 69 percent of the interviewed enterprises are household enterprises as compared to 95 percent in the enterprises population documented above. This means that non-household enterprises are over-represented in the survey.

This over-representation of non-household enterprises can also be seen from the population weight matrix in Table 2.4 where all weights in the household enterprise category is much higher than in any other ownership category.

Table 2.3: Number of Interviewed Enterprises

	Household enterprises	Private/sole proprietorship	Partnership/Collective/Cooperative	Limited liability company	Joint stock company	Total
Ha Noi	125	30	22	107	15	299
Phu Tho	248	8	5	7	8	276
Ha Tay	334	11	6	42	2	395
Hai Phong	108	29	31	29	7	204
Nghe An	296	43	10	30	6	385
Quang Nam	152	9	2	7	1	171
Khanh Hoa	66	19	2	11	2	100
Lam Dong	69	11	1	6	0	87
HCMC	385	99	13	184	12	693
Long An	105	19	1	4	0	129
Sample total	1,888	278	93	427	53	2,739

Table 2.4: Population Weight Matrix

	Household enterprise	Private/sole proprietorship	Partnership/Collective/Cooperative	Limited liability company	Joint stock company
Ha Noi	132.704	6.933	4.455	16.981	20.400
Phu Tho	68.718	4.625	2.800	8.429	2.125
Ha Tay	71.527	5.273	6.833	2.167	5.500
Hai Phong	118.620	2.207	2.129	6.621	5.857
Nghe An	76.672	1.860	3.500	3.567	2.500
Quang Nam	69.138	6.778	5.000	5.143	4.000
Khanh Hoa	84.894	7.895	6.500	7.727	4.000
Lam Dong	76.348	10.182	13.000	5.000	0.000
HCMC	88.938	11.556	6.308	12.402	14.500
Long An	76.667	8.105	10.000	9.250	0.000

Note: No joint stock companies were interviewed in Lam Dong and Long An. This leaves the weights equal to zero for these entries. This implies that the numbers in Table 2.3 multiplied by the corresponding numbers in Table 2.4 adds up to the "population" total minus "population" entries for joint stock companies in Lam Dong and in Long An.

2.2 Implementation

For reasons of implementation the survey was confined to specific areas in each province/city. Subsequently, the sample was drawn randomly from a complete list of enterprises, where the stratified sampling procedure was used to ensure the inclusion of an adequate number of enterprises in each province with different ownership forms.

Prior to the actual enterprise survey a pilot survey including some 100 enterprises (repeat and new) was organized in the city of Hanoi, and in the provinces of Ha Tay and Phu Tho. The pilot was conducted by a joint task force involving staff from ILSSA and the University of Copenhagen. Experience from this pilot survey was analysed and discussed at a workshop in Hanoi in 2005, and questionnaires and the instructions to the enumerators were revised as appropriate. A two day training course of the enumerators was held in Hanoi prior to the implementation of the survey in October 2005. This provided an occasion to identify and clear out remaining ambiguities and possible sources of misinterpretation. As enumerators had considerable prior experience, the training course in effect took the form of a joint discussion and yielded much valuable feedback.

The enterprise survey was carried out by seven survey teams. The interviewers included researchers from ILSSA, staff from different departments of MOLISA and ten representatives from DOLISA. Each team was composed of one team leader (supervisor) and several interviewers. The number of interviewers in each team depended on the size of the sample in each area. The actual survey was undertaken in two stages. In the first stage, enumerators went to the survey areas to identify the repeat enterprises and to obtain the complete list of enterprises from the local authorities. In some cases enterprises had changed location or owner since the last survey in 2002, and determining whether the enterprises were still in existence often involved considerable work. Based on these visits, updated lists of the repeat enterprises were prepared and random samples of the new enterprises were drawn. The second stage of the survey was launched in October 2005 and lasted for two and a half months. In this stage, implementation of the survey questionnaire was carried out through personal visits and direct interviews. Initial checking and cleaning of the data was undertaken in the field. Following data entry, a second round of data cleaning was undertaken and the 2005 data were merged with data files from the 2002 to check consistency. This involved considerable time and effort on the side of ILSSA and the University of Copenhagen.

2.3 Links to Previous Surveys

Although not the focus of this report, in Table 2.5 we document the survival rates of the 1,392 enterprises previously surveyed. Some 982 enterprises were tracked down and accepted to participate in survey, leaving 410 enterprises as potential exit enterprises. Some 81 enterprises were lost during the sampling, while 11 enterprises in the sample were approached, but declined to

answer the questionnaire. Using a pre-designed exit questionnaire we were able to track down 75 previous owners of the closed down enterprises to confirm exit. In 243 cases we were not able to confirm the closure. Using this information we get an annual survival rate of 91.2 percent. That is, around 9 percent of incumbent manufacturing enterprises exit each year according to the sample considered, a level comparable to the 9 to 10 percent average exit rate each year cited by Liedholm and Mead (1999) for a number of developing countries.

Table 2.5: Survival Analysis

		2002	2005
Surveyed in 2002	Survivors	1,392	982
	Declined to answer		11
	Exit confirmed		75
	Out of sample		81
	Don't know		243
	Survival rate		75.7
Annual survival rate			91.2
New entrants			1,839
Total surveyed in 2005			2,821

Note: We had difficulties tracking down (previous) owners of closed enterprises. Some 243 enterprises could not be found. Moreover, 11 enterprises are still operating but declined to answer the questionnaire and 81 enterprises were lost in the sampling procedure.

A further way to illustrate the dynamics of enterprises is to look at employment transition matrices, a tool often used to evaluate economic mobility. Table 2.6 gives employment transitions for micro-, small- medium- and large enterprises from 2002 to 2005.⁴ The data presented indicate quite clearly that micro enterprises with 1 to 9 employees have tended to stay small, with some 88 percent of the enterprises in this category in 2002 remaining there in 2005. Moreover, those enterprises which did increase in size graduated to the small category only, with almost no micro enterprises making the transition to become medium or large enterprises between 2002 and 2005. In fact only four micro enterprises changed category to medium enterprise.

⁴ Our definition of a micro, small, medium and large scale enterprise follows current World Bank and Vietnamese Government definitions. The World Bank SME Department operates with three groups of small and medium-sized enterprises: micro-, small-, and medium-scale enterprises. Micro-enterprises have up to 10 employees, small-scale enterprises up to 50 employees, and medium-sized enterprises up to 300 employees. These definitions are broadly accepted by the Vietnamese Government (see Government decree no. 90/2001/CP-ND on “Supporting for Development of Small and Medium Enterprises”). Our size categories are based on the number of full-time, part-time and casual workers.

Table 2.6: Employment Transition Matrix

	Micro 05	Small 05	Medium 05	Large 05	Total	Percent
Micro 02	578 (87.8)	76 (11.6)	4 (0.6)	0 (0.0)	658 (100.0)	(67.1)
Small 02	56 (20.7)	188 (69.6)	26 (9.6)	0 (0.0)	270 (100.0)	(27.5)
Medium 02	1 (2.2)	12 (26.1)	30 (65.2)	3 (6.5)	46 (100.0)	(4.7)
Large 02	0 (0.0)	1 (14.3)	1 (14.3)	5 (71.4)	7 (100.0)	(0.7)
Total	635	277	61	8	981	(100.0)
Percent	(64.7)	(28.2)	(6.2)	(0.8)	(100.0)	

Note: Percentage in parenthesis. One missing observation in the size category in the 2002 data.

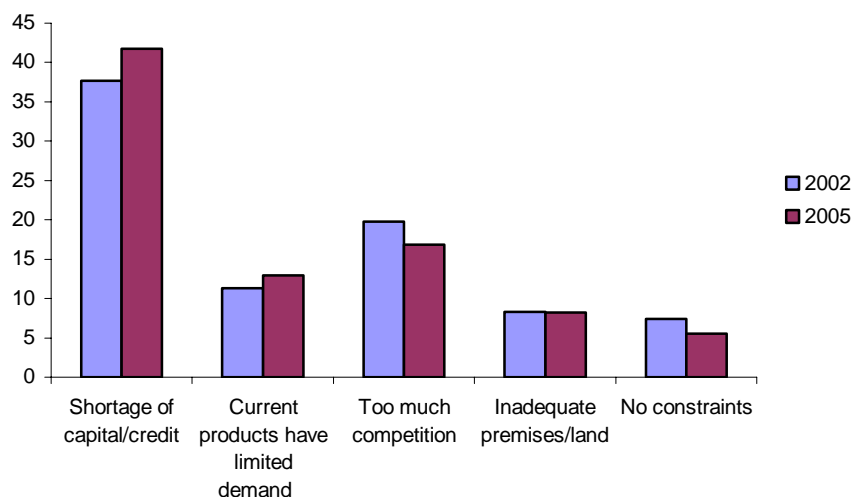
Among other enterprise size categories, there is also a tendency for small and medium enterprises to stay within their size category over the three year period. However, enterprises in these categories seem to have a stronger tendency to move downwards in the size distribution over time. These figures are consistent with the numbers reported for Vietnam for the 1995 – 2000 period documented in Hansen, Rand, and Tarp (2006).

In the following section on Enterprise Dynamics and Growth, we concentrate on the 2005 survey. However, in some cases we link the information back to the 2002 survey in order to follow enterprise development.

3 Enterprise Dynamics and Growth: Some Traditional Determinants

We begin this section by looking at the perceptions of enterprises of the problems faced when doing business and how these have changed over the time between the surveys in 2002 and 2005. Given that the questions regarding constraints faced by the enterprise were posed in exactly the same way in both surveys, we are able to give an indication of the evolution of the Vietnamese business environment from the owner's or manager's point of view. Figure 3.1 illustrates the five categories that scored the highest each year.

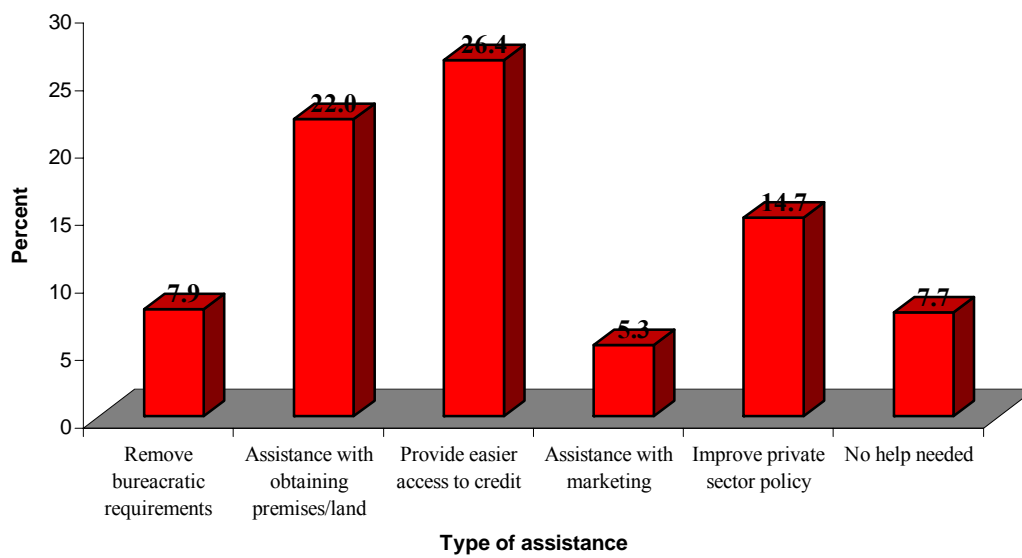
Figure 3.1: Most Important Constraint to Growth as Perceived by the Enterprise



The relative ranking of problems faced by enterprises is the same in 2005 as in 2002. Shortage of capital/access to is still cited as the most serious problem followed by concerns of the level of competition. The third and fourth most severe constraints to growth are concerns of limited demand and inadequate premises and land. Although there has been some minor change in the percentage of firms reporting each type of problem, overall one can conclude that the business environment is relatively unchanged from 2002 to 2005. Notably (not reported), is the fact that only few enterprises are concerned with the level of interference by local officials and general policy uncertainty and only 0.2 percent list difficulties in getting licenses as the most severe obstacle to growth.

To get a feeling of which kind of assistance enterprises would prefer, we asked how authorities can assist enterprises most effectively in order to facilitate growth. Figure 3.2 illustrates the six most important categories of answers.

Figure 3.2: How Can Authorities Best Assist Enterprises?



Not surprisingly over 25 percent of enterprises feel that the authorities could best help their enterprise by providing easier and cheaper access to credit. Second, some 22 percent of the enterprises surveyed think that assistance with obtaining land is most called for. Following the above to categories we find that governments could best assist enterprises by improving private sector policies (14.7%), removing bureaucratic requirements (7.9%) and assisting with marketing (5.3%). Finally, 7.7 percent of the enterprises think that the government should stay out of the private domain, i.e., that no help is needed.

Given that the business environment generally appears to be relatively unchanged from the enterprise manager point of view, it is clearly important to improve our understanding of the factors driving dynamic changes in the enterprise sector and its component parts. The next two sub-sections provide a preliminary analysis of the connection between observed enterprise-characteristics and

the enterprise dynamics (especially entry) and growth performance of manufacturing Vietnamese enterprises.

3.1 Enterprise Dynamics and Entry

A number of characteristics are commonly associated with enterprise entry and growth, in particular location, and sector plus legal ownership form, size and age all of which proxy for variations in market characteristics and/or enterprise organisation. Tables 3.1 to 3.5 show different tabulations of typical determinants of enterprise dynamics and document the number of new entrants in each category.

Table 3.1 focuses on the location – sector split. Sector codes are based on the International Standard Industrial Classification (ISIC) codes, described in Appendix A. First, we see that the three largest sectors in terms of number of enterprises are Food Processing (ISIC 15), Fabricated Metal Products (ISIC 28) and Manufacturing of Furniture (ISIC 36). This corresponds fairly well with the observed sector distribution in GSO (2004, 2005).

Looking at the number of new entrants in each sector category we see some differences as compared to the sample sector shares. In the food processing (ISIC 15) and manufacturing of wood products (ISIC 20) we observe relatively lower new entrant shares. This could suggest higher entry barriers in these sectors. Contrary to this are Wearing Apparel (ISIC 18) and Rubber and Plastic Products (ISIC 25) where entry shares are over 30 percent higher than sample shares. Geroski (1995) found that high entry rates often are associated with higher innovation, and it turns out that our “high entry” sectors are more innovative than our “low entry” sectors. This is analyzed in more detail in a subsequent sub-section.

Table 3.1: Number of Enterprises by Location and Sector

ISIC codes	Ha Noi	Phu Tho	Ha Tay	Hai Phong	Nghe An	Quang Nam	Khanh Hoa	Lam Dong	HCMC	Long An	Total	Percent	New entrants	Percent
15	45	78	99	52	146	65	42	30	143	53	753	(27.5)	184	(22.5)
17	8	1	41	1	3	4	0	12	28	1	99	(3.6)	36	(4.4)
18	22	1	4	3	8	0	1	0	61	1	101	(3.7)	45	(5.5)
19	3	0	0	9	1	4	3	9	25	1	55	(2.0)	24	(2.9)
20	15	28	85	7	50	11	9	7	10	6	228	(8.3)	44	(5.4)
21	16	14	3	3	3	0	2	0	34	0	75	(2.7)	28	(3.4)
22	17	0	6	2	0	2	1	0	30	2	60	(2.2)	26	(3.2)
23	2	2	0	0	1	0	0	0	0	6	11	(0.4)	2	(0.2)
24	6	2	1	2	1	1	0	0	28	0	41	(1.5)	11	(1.3)
25	38	1	2	12	6	3	2	0	80	2	146	(5.3)	60	(7.3)
26	12	57	31	8	33	9	5	8	21	12	196	(7.2)	59	(7.2)
27	4	1	3	0	1	1	0	0	3	4	17	(0.6)	7	(0.9)
28	57	39	26	65	83	28	18	14	101	31	462	(16.9)	148	(18.1)
29	6	0	6	1	1	11	0	4	25	1	55	(2.0)	24	(2.9)
30	1	0	0	0	0	0	0	0	1	0	2	(0.1)	0	(0.0)
31	12	1	1	2	1	0	0	0	21	1	39	(1.4)	17	(2.1)
32	5	0	0	0	0	0	1	0	4	0	10	(0.4)	2	(0.2)
33	1	0	2	0	0	0	0	0	0	0	3	(0.1)	2	(0.2)
34	6	0	5	1	0	0	0	0	8	0	20	(0.7)	8	(1.0)
35	5	0	0	4	1	1	0	0	7	0	18	(0.7)	2	(0.2)
36	18	51	80	29	46	31	15	3	62	8	343	(12.5)	89	(10.9)
37	0	0	0	3	0	0	1	0	1	0	5	(0.2)	0	(0.0)
Total	299	276	395	204	385	171	100	87	693	129	2,739	(100.0)	818	(100.0)
Percent	(10.9)	(10.1)	(14.4)	(7.4)	(14.1)	(6.2)	(3.7)	(3.2)	(25.3)	(4.7)	(100.0)			
New entrants	89	66	90	41	113	31	50	36	292	10	818			
Percent	(10.9)	(8.1)	(11.0)	(5.0)	(13.8)	(3.8)	(6.1)	(4.4)	(35.7)	(1.2)				

Note: Number of enterprises (group percentages in parenthesis). New entrants are defined as enterprises established since 2000. No enterprise produced ISIC 16 "Tobacco Products" which is therefore excluded.

Table 3.2 documents the location-size tabulation. We see a large share of new entrants in Khanh Hoa and HCMC (relatively to their sample share) as compared to the other provinces, which is consistent with the view that enterprise turbulence is higher in these (more dynamic) provinces. Enterprises in urban areas (Ha Noi and HCMC especially) have a larger share of medium and large enterprises than rural provinces. Moreover, the table shows a larger share of new entrants in the small and medium size categories. This may come as a surprise since a new entrant starts its operation with a relatively limited number of employees. This result, however, is not robust to the inclusion of other traditional determinants of entry, an issue which will be discussed in more detail below.

Table 3.2: Number of Enterprises by Size and Location

	Micro	Small	Medium	Large	Total	Percent	New entrants	Percent
Ha Noi	131 (43.8)	131 (43.8)	33 (11.0)	4 (1.3)	299 (100.0)	(10.9)	89	(10.9)
Phu Tho	231 (83.7)	36 (13.0)	7 (2.5)	2 (0.7)	276 (100.0)	(10.1)	66	(8.1)
Ha Tay	234 (59.2)	134 (33.9)	26 (6.6)	1 (0.3)	395 (100.0)	(14.4)	90	(11.0)
Hai Phong	116 (56.9)	63 (30.9)	22 (10.8)	3 (1.5)	204 (100.0)	(7.4)	41	(5.0)
Nghe An	302 (78.4)	70 (18.2)	13 (3.4)	0 (0.0)	385 (100.0)	(14.1)	113	(13.8)
Quang Nam	142 (83.0)	28 (16.4)	1 (0.6)	0 (0.0)	171 (100.0)	(6.2)	31	(3.8)
Khanh Hoa	60 (60.0)	33 (33.0)	7 (7.0)	0 (0.0)	100 (100.0)	(3.7)	50	(6.1)
Lam Dong	58 (66.7)	19 (21.8)	10 (11.5)	0 (0.0)	87 (100.0)	(3.2)	36	(4.4)
HCMC	344 (49.6)	258 (37.2)	85 (12.3)	6 (0.9)	693 (100.0)	(25.3)	292	(35.7)
Long An	98 (76.0)	25 (19.4)	6 (4.7)	0 (0.0)	129 (100.0)	(4.7)	10	(1.2)
Total	1716 (62.7)	797 (29.1)	210 (7.7)	16 (0.6)	2739 (100.0)	(100.0)	818	(100.0)
Percent								
New entrants	453 (55.4)	281 (34.4)	82 (10.0)	2 (0.2)	818 (100.0)			
Percent								

Note: Figures in number of enterprises and for each location the share of enterprises in each size category (group percentages in parenthesis). Micro: 1-9 employees; Small: 10-49 employees; Medium; 50-299 employees; Large: 300 employees and above (World Bank definition).

Tables 3.3 to 3.5 document the remaining dual tabulations in the Ownership/Location/Sector/Size nexus. As mentioned earlier, 69 percent of enterprises in our sample are categorized as Household Enterprises, which is below the share reported in the Census. Moreover, we see that 55 percent of the new entrants are “registered” as household enterprises. The share of new entrants getting formally registered in the limited liability company category is particularly noteworthy. Although LLC make up only 15.6 percent of the sample, 27 percent of new entrants are registered in this category. This is the second highest rate of registration, after household enterprises. This is in line with the perception that the Vietnamese business environment is getting a more solid legal structure framework in place.

Table 3.3: Number of Enterprises by Ownership Form and Sector

ISIC	Household enterprises	Private/sole proprietorship	Partnership/Collective/Cooperative	Limited liability company	Joint stock company	Total	Percent	New Entrants	Percent
15	623	49	11	57	13	753	(27.5)	184	(22.5)
17	66	7	5	21	0	99	(3.6)	36	(4.4)
18	47	10	3	38	3	101	(3.7)	45	(5.5)
19	45	6	1	3	0	55	(2.0)	24	(2.9)
20	163	24	10	29	2	228	(8.3)	44	(5.4)
21	18	13	7	36	1	75	(2.7)	28	(3.4)
22	26	6	0	28	0	60	(2.2)	26	(3.2)
23	9	2	0	0	0	11	(0.4)	2	(0.2)
24	13	6	4	16	2	41	(1.5)	11	(1.3)
25	57	23	12	47	7	146	(5.3)	60	(7.3)
26	154	15	6	15	6	196	(7.2)	59	(7.2)
27	6	6	0	4	1	17	(0.6)	7	(0.9)
28	333	64	18	42	5	462	(16.9)	148	(18.1)
29	34	3	1	14	3	55	(2.0)	24	(2.9)
30	1	0	0	1	0	2	(0.1)	0	(0.0)
31	13	2	0	21	3	39	(1.4)	17	(2.1)
32	6	0	1	2	1	10	(0.4)	2	(0.2)
33	0	1	0	2	0	3	(0.1)	2	(0.2)
34	7	1	3	8	1	20	(0.7)	8	(1.0)
35	7	5	1	5	0	18	(0.7)	2	(0.2)
36	256	35	9	38	5	343	(12.5)	89	(10.9)
37	4	0	1	0	0	5	(0.2)	0	(0.0)
Total	1,888	278	93	427	53	2,739	(100.0)	818	(100.0)
Percent	(68.9)	(10.1)	(3.4)	(15.6)	(1.9)	(100.0)			
New entrants	450	110	13	221	24	818			
Percent	(55.0)	(13.4)	(1.6)	(27.0)	(2.9)	(100.0)			

Note: Figures in number of enterprise (group percentages in parenthesis). No enterprise produced ISIC 16 "Tobacco Products" and is therefore excluded.

Table 3.4: Number of Enterprises by Legal Ownership and Size

	Micro	Small	Medium	Large	Total	Percent	New entrants	Percent
Household establishment	1,530	339	18	1	1,888	(68.9)	450	(55.0)
Private/sole proprietorship	109	136	29	4	278	(10.1)	110	(13.4)
Partnership/Collective/Cooperative	13	58	21	1	93	(3.4)	13	(1.6)
Limited liability company	60	236	124	7	427	(15.6)	221	(27.0)
Joint stock company	4	28	18	3	53	(1.9)	24	(2.9)
Total	1,716	797	210	16	2,739	(100.0)	818	(100.0)
Percent	(62.7)	(29.1)	(7.7)	(0.6)	(100.0)			
New entrants	453	281	82	2	818			
Percent	(55.4)	(34.4)	(10.0)	(0.2)	(100.0)			

Table 3.5 shows that in terms of enterprise size, there is large variation across sectors. In the food processing sector, for example, around 80 percent of the enterprises are micro enterprises, whereas only 30 percent of enterprises in the wearing apparel sector are micro enterprises.

Table 3.5: Number of Enterprises by Sector and Size

ISIC	Sector description	Micro	Small	Medium	Large	Total	Percent	New entrants	Percent
15	Food products and beverages	607	113	31	2	753	(27.5)	184	(22.5)
17	Textiles	41	45	13	0	99	(3.6)	36	(4.4)
18	Wearing apparel etc.	30	41	26	4	101	(3.7)	45	(5.5)
19	Tanning and dressing leather	39	14	1	1	55	(2.0)	24	(2.9)
20	Wood and wood products	143	61	23	1	228	(8.3)	44	(5.4)
21	Paper and paper products	18	43	13	1	75	(2.7)	28	(3.4)
22	Publishing, printing etc.	22	34	4	0	60	(2.2)	26	(3.2)
23	Refined petroleum etc.	9	2	0	0	11	(0.4)	2	(0.2)
24	Chemical products etc.	14	21	6	0	41	(1.5)	11	(1.3)
25	Rubber and plastic products	59	65	21	1	146	(5.3)	60	(7.3)
26	Non-metallic mineral products	92	88	16	0	196	(7.2)	59	(7.2)
27	Basic metals	3	10	3	1	17	(0.6)	7	(0.9)
28	Fabricated metal products	354	90	18	0	462	(16.9)	148	(18.1)
29	Machinery and equipment nec.	28	25	2	0	55	(2.0)	24	(2.9)
30	Office machinery etc.	1	0	1	0	2	(0.1)	0	(0.0)
31	Electrical machinery etc.	12	21	5	1	39	(1.4)	17	(2.1)
32	Radio, TV etc.	5	3	2	0	10	(0.4)	2	(0.2)
33	Medical equipment etc.	1	1	1	0	3	(0.1)	2	(0.2)
34	Vehicles etc.	8	7	4	1	20	(0.7)	8	(1.0)
35	Transport equipment	5	8	4	1	18	(0.7)	2	(0.2)
36	Furniture	222	103	16	2	343	(12.5)	89	(10.9)
37	Recycling	3	2	0	0	5	(0.2)	0	(0.0)
Total		1,716	797	210	16	2,739	(100.0)	818	(100.0)
Percent		(62.7)	(29.1)	(7.7)	(0.6)	(100.0)			
New entrants		453	281	82	2	818			
Percent		(55.4)	(34.4)	(10.0)	(0.2)	(100.0)			

Note: Figures in number of enterprise (group percentages in parenthesis).

The above two-way tabulations provide some indication of the characteristics that may determine enterprise of entry. Table 3.6 shows the results of a probit estimation for determining entry characteristics in Vietnamese manufacturing using the usual correlates: Location, Ownership Form, Sector and Size. The un-weighted estimates are given in column 1 with corresponding robust and cluster robust *t*-stats, whereas the final column uses appropriate enterprise weights described in Section 2, taking into account the survey design (i.e. stratification of the survey sample and the clustering of enumeration areas/districts). District codes are provided in Appendix Table B.

Table 3.6: Entry Determinants

		Unweighted			Weight adjusted		
		Marginal effects	<i>t</i> -stats robust	<i>t</i> -stats cluster	Marginal effects	<i>t</i> -stats robust	<i>t</i> -stats cluster
Size	Small	-0.038	(1.60)	(1.26)	-0.049*	(1.86)	(1.40)
	Medium	-0.095**	(2.52)	(2.16)	-0.068	(1.25)	(1.26)
	Large	-0.250***	(2.91)	(2.43)	-0.230***	(3.76)	(2.96)
Location	Ha Noi	-0.131***	(4.55)	(1.88)	-0.109***	(3.17)	(2.44)
	Phu Tho	-0.081**	(2.39)	(1.76)	-0.078**	(2.29)	(1.74)
	Ha Tay	-0.099***	(3.37)	(1.90)	-0.121***	(3.93)	(2.65)
	Hai Phong	-0.152***	(4.44)	(3.02)	-0.139***	(3.40)	(1.93)
	Nghe An	-0.049*	(1.67)	(1.37)	-0.026	(0.81)	(0.65)
	Quang Nam	-0.142***	(3.78)	(2.98)	-0.126***	(3.41)	(3.01)
	Khanh Hoa	0.137***	(2.79)	(2.93)	0.030	(0.57)	(0.78)
	Lam Dong	0.049	(0.95)	(0.54)	0.047	(0.88)	(0.58)
	Long An	-0.244***	(6.17)	(6.41)	-0.207***	(5.38)	(6.22)
	Ownership	Private/sole proprietorship	0.170***	(5.09)	(4.21)	0.189***	(4.91)
Partnership/Collective/Cooperative		-0.058	(1.01)	(0.90)	-0.020	(0.32)	(0.31)
Limited liability company		0.319***	(9.25)	(6.12)	0.299***	(7.01)	(4.94)
Joint stock company		0.307***	(3.99)	(3.14)	0.411***	(4.44)	(3.81)
Sector dummies included		Yes			Yes		
Observation		2,738			2,738		
Pseudo R-squared		0.10			0.06		

Note: Probit, marginal effects at the mean of all variables. Standard robust and/or cluster robust standard errors. * ** *** indicates significance at a 10%, 5% and 1% level, respectively for the heteroschedasticity robust estimates. Base: Micro enterprise, HCMC, Household enterprise, Food processing (ISIC 15).

First, we find the usual inverse relationship between size and probability of entry—although this is not well determined in all cases. That is new entrants are more likely to be relatively small enterprises. Second, there is a higher probability that new entrants start up businesses in HCMC, Khanh Hoa and Lam Dong as compared to the other provinces analysed. Third, relatively more new entrants are formally registered. That is new entrants are registered as sole proprietorships, limited liability enterprises or as joint stock companies due to better registration procedures. Finally (not reported), as compared to the base sector (food processing) new entrants are more likely to be found (throughout the estimations) in the wearing apparel (ISIC 18), the tanning and dressing leather (ISIC 19), the non-metallic mineral products (ISIC 26) and in the fabricated metal products (ISIC 28) sectors.

3.2 Enterprise Growth

Turning to revenue and short-run growth characteristics, we first look at the number of enterprises actually keeping formal accounting books. This gives us an idea of the reliability of our financial data. Table 3.7 documents that 63 percent of the enterprises do not keep formal accounting books in

accordance with government guidelines. Moreover, only 15 percent of micro enterprises have formal accounting as compared with 67, 96 and 100 percent for small, medium and large enterprises, respectively. This indicates that financial records from micro enterprises should be handled with caution.

Table 3.7: Formal Accounting

	Yes		No	
Maintain formal accounting book	998 (37.1)		1,694 (62.9)	
Are these accounts audited	Yes		No	
	251 (25.2)		747 (74.8)	
Submit financial report to government authorities	Yes	No	Yes	No
	242 (96.4)	9 (3.6)	672 (90.0)	75 (10.0)

Note: 47 missing observations. Percent in parenthesis. Only 15% of micro enterprises keep formal accounting books, as compared to 67%, 96% and 100% for small, medium and large enterprises, respectively

Of the 37 percent keeping formal accounting books only 25 percent get these accounts audited. However, since over 90 percent of enterprises submit financial statements to government authorities, financial statements from these enterprises may be considered quite trustworthy.

Table 3.8 documents the mean estimates (A: Un-weighted mean - B: Clustered and weighted mean) of the level of real revenue per employee, the number of full-time employees, and their growth between 2003 and 2004 by province and enterprise size. Due to possible misreporting and outlier problems we excluded the 1 and 99 percentile in the revenue and employment variables and in the corresponding growth figures, which leaves us with a total of 2,616 observations.

First, the un-weighted mean revenue estimate is 4,803 USD per employee, which is somewhat below the reported mean for non-household enterprises in GSO (2005). However, the above estimate seems plausible given that over 55 percent of the enterprises in our sample are categorized as micro household enterprises.

Table 3.8: Short-run Growth Performance by Location, Size and Age

		Obs	Real revenue per employee (USD)		Real revenue per employee, growth (percent)		Full-time employees		Full-time employees, growth (percent)	
			A	B	A	B	A	B	A	B
Total	All	2,616	4,803	3,689	2.72	-0.50	17.73	8.73	4.23	2.09
By location	Ha Noi	281	5,972	4,182	4.10	-3.38	29.41	11.78	4.40	1.72
	Phu Tho	263	2,775	2,511	-6.54	-6.18	8.86	4.74	0.62	0.54
	Ha Tay	375	5,091	4,493	2.10	-1.59	14.20	10.49	4.69	3.36
	Hai Phong	200	5,385	4,128	-3.75	-7.00	27.64	7.19	4.50	2.58
	Nghe An	375	2,705	2,295	10.08	7.36	9.22	4.79	5.17	3.08
	Quang Nam	167	3,354	3,158	0.97	0.59	5.69	4.84	2.33	2.06
	Khanh Hoa	94	5,860	6,433	2.04	0.05	20.43	7.16	5.92	-1.97
	Lam Dong	85	4,023	3,118	-2.12	-2.67	14.00	7.27	3.94	3.77
	HCMC	647	6,403	5,202	5.78	1.39	24.72	13.05	6.01	2.61
	Long An	129	4,353	3,977	-0.43	0.25	10.96	5.84	-0.78	-1.57
By size	Micro	1,658	3,802	3,681	1.34	-0.14	4.21	4.13	1.48	1.06
	Small	748	6,251	4,968	4.11	-2.49	18.89	16.31	7.22	5.17
	Medium	197	7,548	6,357	9.20	5.24	95.08	88.61	15.42	10.15
	Large	13	7,670	5,817	0.51	-3.57	502.23	503.82	13.75	37.65
By age	New entrants	757	5,348	4,282	11.32	7.07	19.32	9.09	8.79	4.30
	Incumbent	1,858	4,583	3,895	-0.77	-2.95	17.08	8.61	2.37	1.37

Note: Mean estimates, A) un-weighted and B) clustered and weighted. Real revenue per employee growth rates from 2003 to 2004. We have excluded the one and 99 percentile in both revenue per employee and growth to address outlier problems. We used the manufacturing GDP deflator and an exchange rate approximately 16122 VND to 1 USD. Using a sector specific GDP deflator does not change the overall picture reported in the table. Only 2615 observations in the age category due to one missing observation.

Second, the weighted mean estimates are generally lower than the un-weighted figures illustrating the fact that smaller household enterprises are under-represented in the sample. Third, revenue per employee is higher in urban areas (Hanoi, Hai Phong and HCMC), and the rural provinces of Ha Tay and especially Khanh Hoa. Fourth, revenue per employee increases with enterprise size both when considering the un-weighted and the weighted sample. Fifth, Nghe An stands out together with HCMC in terms of short-run revenue and employment growth. This is so both when considering the weighted and the un-weighted sample means. Finally, new entrants have a better growth performance than incumbents, both in terms of employee growth and growth in real revenue per employee. This is in line with traditional theoretical predictions that (surviving) new entrants grow faster than incumbents.

Table 3.9 shows the revenue and employment numbers by legal ownership form and sector. First, non-household enterprises experience higher growth rates. Household enterprises have negative growth rates. Being formally registered therefore seems to be growth enhancing. Second, mean estimates in line with GSO (2005), confirm that the leading sectors are chemical products, etc.

(ISIC 24), basic metal (ISIC 27), radio, television, etc. (ISIC 32) and vehicles, etc. (ISIC 34) when evaluating real revenue per employee.⁵

Table 3.9: Short-run Growth Performance by Ownership Form and Sector

		Obs	Real revenue per employee (USD) 2004	Real revenue per employee, Growth (percent)	Full-time employees	Full-time employees, Growth (percent)
Total	All	2616	4803	2.72	17.73	4.23
By ownership	Household	1834	3752	-0.74	6.96	1.75
	Private/sole proprietorship	261	6488	5.04	24.45	10.30
	Partnership/Collective/Cooperative	90	5674	12.90	36.00	2.82
	Limited liability company	384	8229	14.29	52.11	10.49
	Joint stock company	47	6815	10.87	84.47	19.06
By sector	15 Food products and beverages	727	4716	2.53	10.35	3.09
	17 Textiles	94	5464	7.60	26.71	3.49
	18 Wearing apparel etc.	93	3197	3.11	49.14	9.82
	19 Tanning and dressing leather	54	3891	0.00	15.98	3.77
	20 Wood and wood products	210	3305	0.29	18.69	4.72
	21 Paper and paper products	67	9571	5.17	37.75	4.13
	22 Publishing, printing etc.	56	6660	-3.56	17.05	2.86
	23 Refined petroleum etc.	11	4036	-3.78	7.64	-3.16
	24 Chemical products etc.	40	9625	12.64	26.28	9.54
	25 Rubber and plastic products	137	7523	7.98	29.16	7.06
	26 Non-metallic mineral products	194	3164	1.25	18.08	6.22
	27 Basic metals	16	7680	1.55	29.19	5.18
	28 Fabricated metal products	446	4473	1.29	9.56	3.37
	29 Machinery and equipment nec.	51	6122	13.57	15.22	4.59
	30 Office machinery etc.	2	3342	-13.79	36.00	20.65
	31 Electrical machinery etc.	33	6883	-7.06	25.27	13.56
	32 Radio, TV etc.	10	8423	45.84	35.60	1.28
	33 Medical equipment etc.	3	6420	14.58	27.33	-9.61
	34 Vehicles etc.	20	7397	40.36	119.65	15.76
	35 Transport equipment	16	3901	0.50	54.63	-0.96
36 Furniture	331	4034	-0.20	14.13	2.56	
37 Recycling	5	4194	-4.01	12.8	-2.22	

Note: Un-weighted mean estimates. Real revenue per employee growth rates from 2003 to 2004. We have excluded the one and 99 percentile in both revenue per employee and growth to address outlier problems. Moreover, some enterprises did not report revenue figures from 2003. We used the manufacturing GDP deflator and an exchange rate approximately 16122 VND to 1 USD. Using a sector specific GDP deflator does not change the overall picture reported in the table.

Sectors with low revenue per employee are, as expected, wearing apparel (ISIC 18) and tanning and dressing leather (ISIC 19). These are also in line with figures reported in GSO (2005). The short-run revenue per employee growth rates vary a lot between sectors, even when using sector specific price deflators (not reported). It seems especially as if the radio, television, etc. (ISIC 32) and the vehicles, etc. (ISIC 34) sectors are expanding rapidly. In this survey, we find the latter sector (ISIC

⁵ In addition to these sectors GSO (2005) report high a turnover per employee for ISIC 23 and ISIC 30. Our survey has relatively few enterprises in these categories explaining the low mean estimate.

34) is also the one which has on average most employees and among the highest on average employee growth rates.

Table 3.10: Short-run Growth Determinants

		OLS – Un-weighted			OLS - Weight Adjusted		
		Coefficient	<i>t</i> -stats robust	<i>t</i> -stats cluster robust	Coefficient	<i>t</i> -stats robust	<i>t</i> -stats cluster robust
Age	New entrant	0.098***	(4.56)	(5.11)	0.093***	(4.37)	(4.57)
Size	Small	-0.042*	(1.88)	(2.05)	-0.029	(2.00)	(1.55)
	Medium	-0.054	(1.19)	(1.49)	-0.024	(0.71)	(0.68)
	Large	-0.088	(1.29)	(1.17)	-0.071	(0.95)	(0.85)
Location	Ha Noi	-0.031	(1.00)	(1.38)	-0.035	(1.33)	(1.42)
	Phu Tho	-0.075***	(3.30)	(4.01)	-0.051**	(2.55)	(2.74)
	Ha Tay	0.010	(0.34)	(0.26)	0.004	(0.18)	(0.13)
	Hai Phong	-0.082***	(3.49)	(4.03)	-0.064***	(3.10)	(3.78)
	Nghe An	0.074*	(2.28)	(2.35)	0.071**	(2.42)	(2.43)
	Quang Nam	-0.001	(0.05)	(0.08)	0.004	(0.14)	(0.22)
	Khanh Hoa	-0.030	(0.61)	(0.68)	-0.012	(0.36)	(0.46)
	Lam Dong	-0.063**	(2.10)	(3.00)	-0.052*	(1.64)	(1.81)
	Long An	0.003	(0.09)	(0.12)	0.020	(0.66)	(0.97)
Ownership	Private/sole proprietorship	0.067**	(1.97)	(2.17)	0.056	(1.61)	(1.88)
	Partnership/Collective/Cooperative	0.187**	(2.63)	(2.44)	0.165**	(2.52)	(2.25)
	Limited liability company	0.166***	(3.98)	(5.33)	0.162***	(4.03)	(5.59)
	Joint stock company	0.139**	(2.01)	(2.49)	0.127**	(2.15)	(2.56)
Sector dummies included		Yes			Yes		
Observation		2,615			2,615		
R-squared		0.06			0.06		

Note: OLS - Dependent variable: Real revenue per employee growth. Standard robust and cluster robust standard errors. *, **, *** indicates significance at a 10%, 5% and 1% level, respectively. Base: Micro enterprise, HCMC, Household enterprise, Food processing (ISIC 15).

Table 3.10 shows OLS estimates where all the traditional determinants of enterprise dynamics documented in Tables 3.8 and 3.9 are included. Summarizing the results, we find the following: First, new entrants grow faster. However, the traditional inverse relationship between growth and size is not well-determined. As compared to HCMC, Nghe An is standing out in terms of real revenue per employee growth. “Low performing” provinces in terms of growth are Phu Tho, Hai Phong and Lam Dong. Finally, non-household enterprises experience higher growth rates, providing a motivation for a closer look at the effects of legalising and formalizing enterprise operations. However, we see that the traditional determinants explain only six percent of the short-run variation in real revenue per employee growth rates. In the following sections we therefore seek additional indications and explanations for the observed development and dynamics of Vietnamese manufacturing enterprises.

4 Bureaucracy, Informality, Tax Evasion and Bribes

Business informality, regulation, taxation and corruption are fundamental in any discussion of private sector development and the business environment in developing countries. High formal sector entry costs, high regulatory compliance costs and punitive tax rates can push enterprises to operate informally, foregoing legal recognition in order to reduce operating costs. The ability of an enterprise to reduce or avoid these costs also relates to the corruptibility of public officials. Corruption may also exist due to predatory public officials working to extract private rents for fictitious infractions or questionable interpretations of the rules. The issues of bureaucracy, taxation, and corruption have potentially differing impacts on heterogeneous enterprises, in particular in terms of enterprise size.

4.1 Degree of Informality and Registration

Starting with the degree of informality Table 4.1 documents at which government level the enterprise is registered by size category. As expected, most of the non-registered enterprises are household micro enterprises. Moreover, the larger an enterprise becomes the higher the level of administrative registration.

Table 4.1: Level of Administrative Registration

	Micro	Small	Medium	Large	Total
Commune/Ward	219	55	2	1	277
District	796	378	54	4	1,232
Province/City	96	309	152	11	568
Not registered	579	49	2	0	630
Missing observations	26	6	0	0	32
Total	1,716	797	210	16	2,739

The level of administrative registration also impacts whether enterprises have a tax code. As Figure 4.1 shows not all enterprises have a formal tax code even though they are registered at some official level. Not having a tax code does not mean that enterprises do not pay taxes. It is more an indicator of the level of registration and formality facing the enterprise. Only 34 percent of the enterprises registered at the commune level have a formal tax code. This number increases sharply to 75 and 98 percent at the district and province level, respectively. Figure 4.1 also documents the

numbers of enterprises registered under the New Enterprise Law enacted in 2000 by registration level. As expected, most enterprises registered at the provincial level are also registered under the New Enterprise Law.

Figure 4.1: Percent Having a Tax Code by Level of Registration

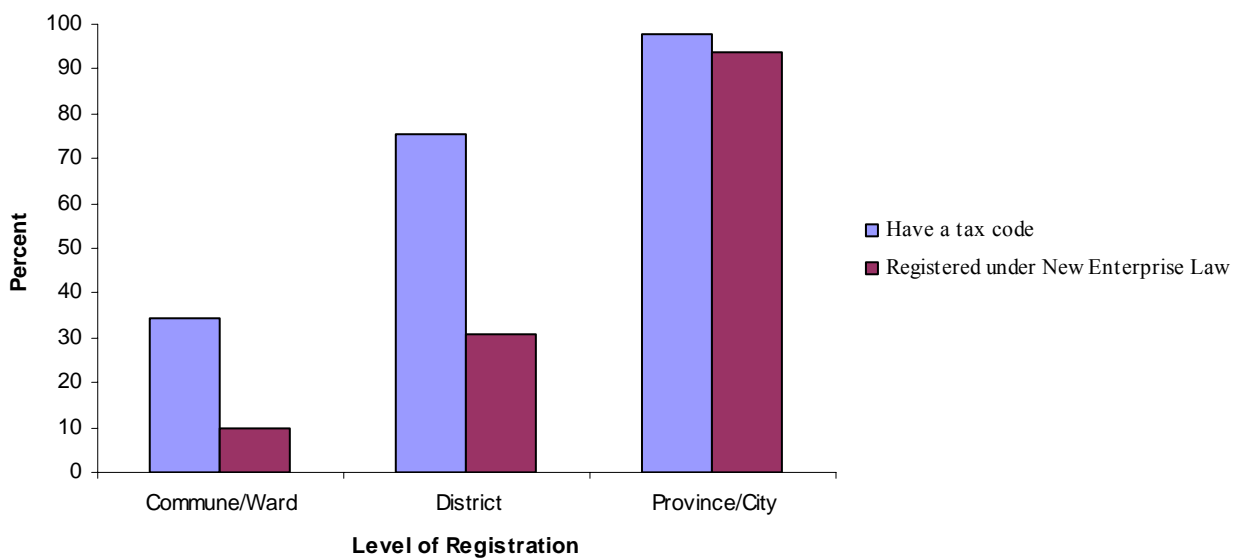


Table 4.2 shows mean growth rates for real revenue per employee for different levels of registration. First, registered enterprises experience higher growth rates than enterprises not registered. Second, among the registered enterprises around 25 percent do not have a formal tax code. These enterprises experience, on average, lower growth rates as compared to registered enterprises having a formal tax code. Third, taking the registration level one step further, we see that around 58 percent of the enterprises having a formal tax code are also registered under the New Enterprise Law (NEL).

These enterprises do remarkably well as compared to the registered enterprises with a tax code but which are not registered under NEL. The overall picture confirms the above intuition that formal registration is positively associated with performing well economically.

Table 4.2: Registration and Growth

	Registered	Not registered
Observations	1,981	605
Growth mean	3.49	0.19
Growth median	(-3.86)	(-5.17)
	Have tax code	No tax code
Observations	1,492	489
Growth mean	4.58	0.15
Growth median	(-3.72)	(-4.38)
	NEL	Not NEL
Observations	870	622
Growth mean	9.61	-2.46
Growth median	(-2.67)	(-4.48)

Note: Real revenue per employee growth (median in parenthesis)

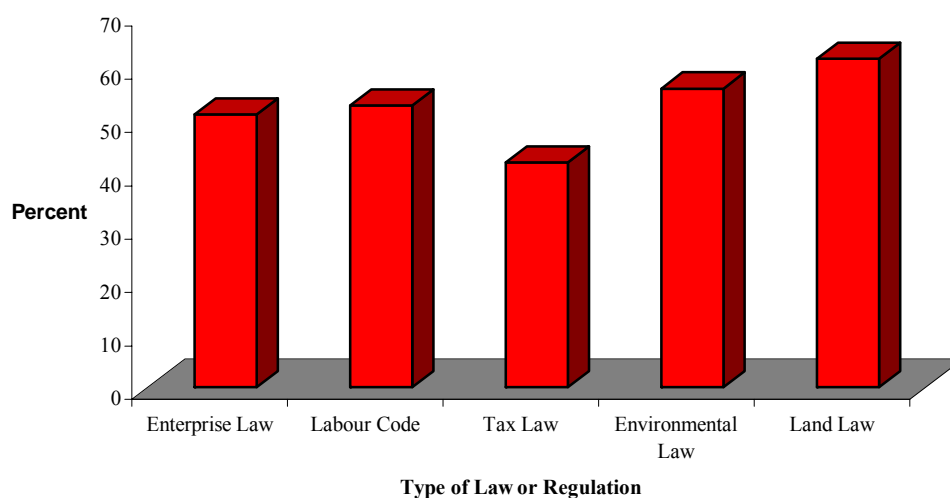
However, causality is difficult to determine from this exercise and this issue needs further study, which is beyond the scope of this report.

4.2 Bureaucratic Burden and Administration

The World Bank's "Doing Business" survey (Doing Business, 2006) ranked Vietnam 104 out of 175 countries in terms of ease of doing business. The conventional wisdom in the media and in the public discourse for a long time has been that red tape and general bureaucratic burdens are a major problem in Vietnam. Removal of bureaucratic requirements is often considered central for future business development. However, one reason for a perceived huge burden of bureaucracy from a enterprise's point of view is the lack of knowledge of specific laws and government regulations. Figure 4.2 lists the percentage of enterprises having poor or no knowledge of laws and regulations relevant for an average enterprise.

Enterprises' perception of their knowledge of specific laws and regulations are quite poor. Over half of the enterprises have poor or no knowledge about the Enterprise Law, Labour Code, Environmental Law and the Land Law. In addition over 40 percent of the enterprises have only weak knowledge about the tax law. These results should be kept in mind when discussing the burden of bureaucracy, and puts focus on the need to educate enterprises about new and existing laws.

Figure 4.2: Percent of Enterprises with Poor or No Knowledge of Specific Laws and Regulations



Among the specific bureaucratic problems faced by enterprises is the time and delays in obtaining business licenses and registration. However, when focusing on this bureaucratic burden Vietnam ranks among industrialized countries (ranked 25 in 2006) according to the Doing Business survey (2006), and is in line with the very few enterprises considering obtaining licenses and permits as a major obstacle for enterprise growth. According to the World Bank (2006) this relatively low level of bureaucracy and red tape has been reached mainly due to dramatic simplifications in business registration introduced by the Enterprise Law of 2000, which reduced the number of licenses for doing business.

Starting with the time it takes from application to be approved for starting a business, Table 4.3 provides median and mean statistics by province, enterprise size and age (for registered enterprises). The median time for getting approval for starting a business is about 15 days, whereas the mean is approximately 23 days for the entire sample. This corresponds with the results obtained by VNCI (2006) (mean 22 days) and the median result reported in Doing Business (2006) (15 days). Our results suggest that enterprises in Lam Dong face larger bureaucratic difficulties than enterprises in other provinces when trying to obtain a business license.

Table 4.3: Time Used on Bureaucratic Procedures (1)

	Time to get application form approved for starting a business (days)		Number of registrations, licenses and permits		Shortest time used to obtain relevant licenses etc. (days)		Longest time used to obtain relevant licenses etc. (days)	
	Median	Mean	Median	Mean	Median	Mean	Median	Mean
Total	15.0	22.8	2.0	2.2	10.0	23.2	30.0	72.0
Ha Noi	15.0	28.8	3.0	3.1	7.0	9.0	20.0	45.5
Phu Tho	15.0	16.9	0.0	0.9	10.0	12.1	30.0	80.2
Ha Tay	10.0	15.1	1.0	1.6	10.0	36.6	30.0	70.2
Hai Phong	11.0	16.6	2.0	2.6	7.0	14.2	26.5	54.7
Nghe An	15.0	23.8	1.0	1.5	20.0	59.6	30.0	104.8
Quang Nam	7.0	13.3	2.0	2.3	5.0	13.2	23.0	41.5
Khanh Hoa	20.0	24.2	3.0	3.1	7.0	7.0	30.0	46.2
Lam Dong	60.0	52.6	2.0	1.7	50.0	45.3	90.0	87.5
HCMC	15.0	22.9	3.0	3.1	10.0	13.0	30.0	79.9
Long An	30.0	36.8	2.0	1.6	22.5	30.8	60.0	100.6
Micro	15.0	21.5	2.0	1.7	10.0	28.5	30.0	76.6
Small	15.0	23.2	2.0	2.8	7.0	17.0	30.0	65.7
Medium	20.0	28.1	3.0	4.1	7.0	14.1	30.0	76.1
Large	15.0	27.1	4.5	4.8	7.0	10.4	30.0	148.3
New entrant	15.0	22.2	2.0	2.4	8.0	17.0	30.0	61.8
Incumbent	15.0	23.1	2.0	2.2	10.0	26.0	30.0	78.6

Looking at the number of registrations, licenses and permits enterprises have, Table 4.3 shows (not surprisingly) that it increases with size. Larger enterprises engage in diversified activities, including trade, which require clearance by government authorities. This also explains why Ha Noi, Khanh Hoa and HCMC (the provinces with the biggest enterprises) have a higher average number of registrations, licenses and permits. However, it should be noted that the mean number a licences generally needed for doing business is low compared to other developing countries (Doing Business, 2006).

Formal property rights are not well established in the Vietnamese legal system, but as noted in World Bank (2006) the enforcement of property rights has operated through informal mechanisms. However, a formal land property rights system is emerging in Vietnam, with more and more enterprises obtaining formal land use rights certificates (LURC). This forces enterprises through the bureaucratic system. Table 4.4 shows that the average number of enterprises having a land use right certificate (LURC) is around 53 percent, which is in line with the average found for the total economy in VNCI (2006). The mean number of days spent to obtain a LURC is around 134, which also corresponds well with VNCI (2006). However, it is noticeable that the median time to obtain a LURV is only around 60 days, suggesting a fairly skewed distribution. The time it takes to obtain

the LURC is increasing in enterprise size, and is highest in urban areas. For example, enterprises in Khanh Hoa have to wait longer for a LURC than their rural counterparts.

Table 4.4: Time Spent on Bureaucratic Procedures (2)

	Percent having a LURC	Time to obtain LURC (days)		Number of inspections in 2004		Percent of management's working time spent on dealing with government regulations and officials	
	Mean	Median	Mean	Median	Mean	Median	Mean
Total	53.4	60.0	133.8	0.0	1.2	20.0	29.1
Ha Noi	26.4	60.0	187.9	1.0	1.6	50.0	44.5
Phu Tho	76.1	40.0	96.0	0.0	0.3	10.0	17.6
Ha Tay	54.9	60.0	103.4	0.0	0.5	10.0	17.6
Hai Phong	46.6	90.0	168.8	1.0	1.2	10.0	23.0
Nghe An	61.0	37.5	141.9	0.0	0.8	10.0	14.8
Quang Nam	62.0	30.0	76.7	1.0	1.2	30.0	37.7
Khanh Hoa	25.0	90.0	242.2	2.0	1.9	50.0	48.5
Lam Dong	57.5	90.0	116.3	0.0	0.2	50.0	44.4
HCMC	48.9	90.0	172.3	2.0	2.0	30.0	38.7
Long An	82.2	75.0	126.0	0.0	0.8	20.0	29.9
Micro	60.9	60.0	116.1	0.0	0.8	10.0	22.1
Small	44.0	60.0	175.5	1.0	1.7	30.0	39.0
Medium	30.5	90.0	183.2	2.0	2.3	50.0	52.1
Large	12.5	607.5	607.5	3.0	3.3	60.0	61.7
New entrant	41.6	60.0	117.9	1.0	1.3	30.0	32.5
Incumbent	58.4	60.0	138.7	0.0	1.1	20.0	27.6

Another bureaucratic cost facing an enterprise is inspections by government officials. The number of yearly inspections is listed in Table 4.4. The typical enterprise has no inspections (median zero), although the mean number of inspections is 1.2. Contrary to VNCI (2006) we find a higher number of inspections in HCMC, Hanoi and Khanh Hoa. The result obtained in this survey is very much related to the fact that the number of inspections is increasing in enterprise size as one would expect given the above diversification argument. Finally, the percent of management's time spent on dealing with government regulations and officials show that managers of bigger urban enterprises use a larger fraction of their working time on administrative duties. However, enterprise managers in Lam Dong, a rural province, spend a greater percentage of their time dealing with authorities than expected for such a rural province.

4.3 Government/Business Assistance and Social Networks

The Vietnamese Government has been very involved in the private sector development both from the regulatory side and in terms of direct assistance. As shown in Hansen et al (2006), Vietnamese authorities played a significant role in promoting private sector development also at the individual enterprise level. Table 4.5 shows that three out of five enterprises have received some sort of government assistance, with the lowest share of receivers in urban centres HCMC and Hanoi. Relatively few enterprises have received other kinds of business support, such as from Trade Promotion, SME Promotion and Industrial Extension agencies and programmes. Direct government assistance still plays a dominant role in providing business assistance to individual enterprises. However, direct government assistance to the enterprise is often thought of as having a consequence for the enterprise, whether in term of a bribe or other non-monetary favours (such as employing a family member of the government official, or selling goods at a price below the market price)

Table 4.5: Government and Business Assistance

	Direct Government Assistance	Trade Promotion Agency	SME Promotion Agency	Industrial Extension Agency
Hanoi	51.8	5.0	5.7	1.3
Phu Tho	61.6	0.7	2.2	0.4
Ha Tay	72.7	5.1	4.1	2.5
Hai Phong	90.7	2.5	3.9	1.0
Nghe An	81.6	3.9	4.9	2.3
Quang Nam	65.5	1.8	7.6	1.2
Khanh Hoa	70.0	2.0	2.0	2.0
Lam Dong	86.2	0.0	0.0	0.0
HCMC	29.2	4.0	1.6	1.2
Long An	66.7	7.0	5.4	3.1
Total	60.5	3.6	3.6	1.5

Table 4.6 provides an overview of the level of government providing assistance to enterprises and whether or not the assistance is paid for through a bribe. A total of 1,656 enterprises received some sort of government assistance during their time of existence. Around 47 percent of the enterprises receive assistance mainly from the commune level authorities, as compared to 41 and 12 percent for the district and provincial level, respectively. It is interesting that enterprises to a larger extent have to provide an informal payment for assistance received from higher level authorities. In the next subsection we look closer at the determinants of bribe payments.

Table 4.6: Commune, District or Province Assistance

	Commune/Ward	District	Province/City	Other	Total
Total	783 (47.3)	672 (40.6)	193 (11.7)	8 (0.5)	1,656 100.0
Pay bribe	72 (9.2)	100 (14.9)	50 (25.9)	2 (25.0)	224

Note: Numbers in parenthesis are percentages

The ease with which an enterprise can do business may also be related to the informal network of owner and managers. There is a huge amount of anecdotal evidence in Vietnam that social networks play a crucial role in a lot of business aspects, such as, the ease with which licenses and permits are obtained, easier access to government contracts, easier access to credit on favourable terms, lower tax and informal payments etc. Table 4.7 focuses on specific formal and informal network ties. While nine percent of enterprise owners are members of the Communist Party, this share of owners having Party membership increases with enterprise size. Similarly, the share of enterprises having network ties with one or more bank official is also increasing in enterprise size. However, a first glance at the differences in revenue growth rates between enterprises with and without network ties does not show any significant differences in economic performance. A full analysis is, however, required to establish causality. Counter-veiling factors may be at work.

Table 4.7: Network Ties

	All	Micro	Small	Medium	Large	t-test	Member/No network
Member of the Communist Party	9.0	6.2	12.0	18.1	43.8	0.023	(0.83)
Has an official position in a local cadre	6.1	5.2	8.2	5.2	6.3	-0.034	(1.04)
Manager/owner is a war veteran	7.0	6.6	7.0	10.5	6.3	0.024	(0.80)
Do you currently have regular contact with (at least once every 3 months) which you find useful for your business operations							
Bank officials?	34.1	25.3	43.3	66.7	81.3	0.005	(0.29)
Mass organizations?	36.7	36.9	33.9	43.3	56.3	-0.018	(1.12)

Note: t-test performed on growth of real revenue per employee. t-stats in parenthesis.

Table 4.8 looks at formal membership of business associations. Around nine percent of the enterprises sampled are members of one or more business associations, a number which is increasing in enterprise size. There is a lot of variation across provinces, with surprisingly high shares in rural Nghe An and Ha Tay.

Table 4.8: Business Association Membership

	Member	t-test Member/No network	
All	9.3	0.115***	(4.22)
Micro	2.1	0.134**	(2.21)
Small	17.6	0.097**	(2.13)
Medium	33.3	0.086	(1.23)
Large	50.0	0.153	(1.01)
Ha Noi	15.1	0.218***	(2.79)
Phu Tho	1.8	-0.054	(0.72)
Ha Tay	10.4	0.090	(1.33)
Hai Phong	14.2	0.035	(0.83)
Nghe An	11.2	0.142*	(1.73)
Quang Nam	3.5	-0.001	(0.01)
Khanh Hoa	6.0	-0.079	(0.29)
Lam Dong	1.2
HCMC	10.4	0.083	(1.37)
Long An	4.7	0.005	(0.05)

Note: Approximately 90 percent of enterprises who is member of one or more business associations find them useful or very useful for their business operations. t-test performed on real revenue per employee growth. t-stats in parenthesis. ***, **, * indicates significance at a 1, 5 and 10 percent level, respectively.

Again the differences in economic performance between members and non-members are carried out using simple t-tests. On average it seems favourable to be member of a business association. A significant positive difference in growth of revenue per employee is found among micro and small enterprises, and in Ha Noi and Nghe An. However, causality is difficult to determine from this simple test. Fast growing enterprises might become members, and the result is therefore not necessarily a positive network effect of being member of a business association.

4.4 Taxes and Informal Costs

This final section provides an overview of the burden of taxes and informal payments facing Vietnamese manufacturing enterprises. Table 4.9 documents that enterprises generally pay very few taxes - The economic tax burden is thus fairly low. This also confirms the statement by the Ministry of Finance that there is a serious situation of tax evasion among private enterprises (see Toan et al., 2004). The average tax payment was 2.63 percent of total revenue in 2004, and 14 percent of the enterprises paid zero taxes. It is noteworthy, that 91 percent of the non-tax paying enterprises are not formally registered.

Table 4.9: Fees and Taxes

	Total fees and taxes (percent of total revenue)		Share paying zero taxes
	Mean	Median	Percent
Total	2.63	1.24	14.07
Ha Noi	3.21	1.62	8.08
Phu Tho	0.84	0.32	17.75
Ha Tay	0.70	0.12	27.09
Hai Phong	2.55	1.75	5.88
Nghe An	1.63	0.40	38.28
Quang Nam	1.58	1.11	12.87
Khanh Hoa	4.08	2.05	0.00
Lam Dong	3.71	2.69	1.15
HCMC	4.58	3.39	1.73
Long An	3.18	2.02	8.53
Micro	2.17	0.93	20.80
Small	3.35	1.89	3.27
Medium	3.58	1.93	0.96
Large	3.36	2.46	0.00

Note: Three missing observations. Some 350 of the enterprises not paying taxes (91 percent) are also not registered. The data includes further details on the types of taxes paid.

Figure 4.3 shows the level of government authority that collects fees and taxes paid. Around 91 percent of the taxes paid go to the commune and district level. Given the low ability of tax authorities to collect a sustainable amount from private manufacturing enterprises reflected in the table, attention must be given in the future to developing a tax system, which is both transparent and easily enforced, especially for commune and district level authorities.

Informality, regulation, close involvement with government officials and taxation are potentially closely related to bribery and corruption, and they are prominent components of the “business environment” in a developing country. Given the relative low tax burden facing the enterprises, we focus on informal payments, which from the enterprise’s point of view are best seen as a form of indirect taxation. Bribes may be offered in exchange for a given service delivered by a government official. We therefore try to look at 1) How many enterprises pay bribes, 2) How much is actually paid and 3) Why was the bribe paid? Table 4.10 and Figure 4.4 summarize the results. Table 4.10 shows some 41 percent of the enterprises pay bribes. However, the bribes paid are relatively small, measured as a share of total revenue. The mean is 0.5 percent and the median around 0.2 percent of total revenue. This confirms the results reported in World Bank (2006) that corruption and bribes are widespread, but petty. This does not, however, mean that bribes do not affect the way

enterprises carry out business and anecdotal evidence tells us that from the enterprise’s point of view bribes are needed to get things done and “seize the day”.

Figure 4.3: Who Collects Fees and Taxes?

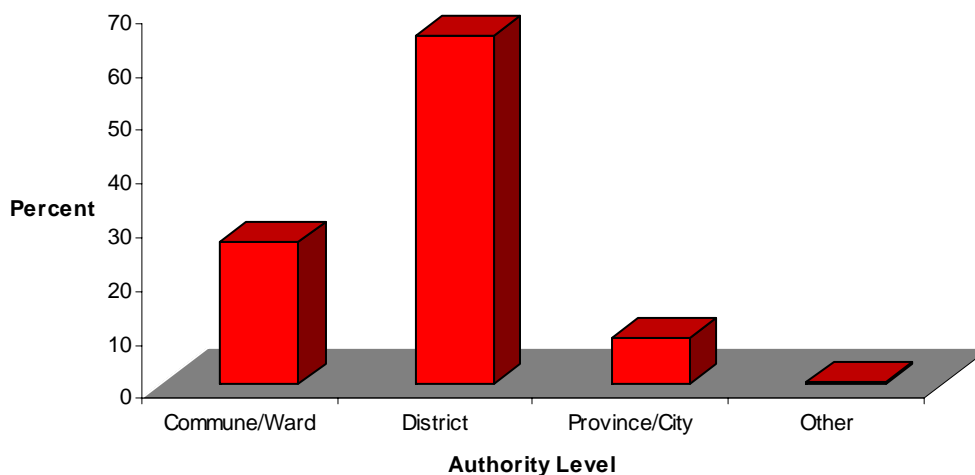


Table 4.10: How Many Enterprises Pay Bribes and How Much Do They Pay?

		Yes	No			
Enterprises paying bribes	Observations	1129	1610			
	Percent	(41.2)	(58.8)			
How much did you pay in 2004 (as a percentage of total revenue)	Mean	0.50				
	Median	0.17				
How often does the enterprise pay bribes		Always	Often	Occasionally	Seldom	Never
	Percent	(1.3)	(4.5)	(18.3)	(17.1)	(58.8)

Note: Only 16% know in advance approximately how much the bribe payments/communication fees will be in the coming year.

Figure 4.4 documents that 36 percent of bribe paying enterprises pay bribes to get easier access to public services. The second most frequent reason for paying bribes is to deal with taxes and tax collectors. Finally, 16 percent paid a bribe in order to get favourable conditions in a bid for a government contract.

Figure 4.4: What is the Bribe Payment Used For?



Get connected to public services	A
Get licenses and permits	B
Deal with taxes and tax collectors	C
Gain government contracts/public procurement	D
Deal with customs	E
Gain contract from private customer	F
Create a close and not harmful relationship with customers	G
Create a close and not harmful relationship with government authorities	H
Not well specified	I

Turning to the question of which manufacturing enterprises pay bribes, in Table 4.11 we list the results obtained from running a probit regression for the usual determinants previously described. First, being a new entrant and paying bribes are positively associated. Second, larger enterprises have a higher probability of paying bribes. Third, turning to location characteristics, enterprises in Khanh Hoa pay a bribe more frequently than enterprises in HCMC, whereas enterprises in Quang Nam have a lower probability of paying bribes. Finally, household enterprises are less likely to pay bribes. This suggests that being registered and paying bribes are related (Enterprises more visible to “corrupt” government officials).

This is confirmed by Table 4.12 where we include some of the variables described in Section 4. Being a registered enterprise is positively and significantly correlated with paying bribes. This also goes for enterprises having a tax code and enterprises registered under the New Enterprise Law.

Table 4.11: Bribe Determinants: The Usual Suspects

		Un-weighted			Weight Adjusted		
		Probit	t-stats robust	t-stats cluster	Probit	t-stats robust	t-stats cluster
Age	New entrant	0.106	(1.74)	(1.44)	0.154*	(2.12)	(1.70)
Size	Small	0.643***	(9.20)	(7.98)	0.649***	(7.60)	(9.25)
	Medium	1.000***	(7.82)	(7.55)	1.015***	(5.21)	(4.24)
	Large	1.756***	(3.36)	(4.00)	2.116***	(3.34)	(3.49)
Location	Ha Noi	0.283	(2.86)	(1.12)	-0.001	(0.01)	(0.00)
	Phu Tho	-0.240	(2.23)	(1.09)	-0.530**	(4.39)	(2.21)
	Ha Tay	-0.263	(2.72)	(1.02)	-0.624**	(5.39)	(2.18)
	Hai Phong	0.471*	(4.17)	(1.89)	0.293	(2.08)	(1.03)
	Nghe An	0.019	(0.21)	(0.07)	-0.366	(3.38)	(1.30)
	Quang Nam	-0.699***	(4.93)	(3.29)	-0.995***	(6.17)	(4.26)
	Khanh Hoa	1.374***	(7.65)	(5.50)	1.195***	(6.22)	(4.76)
	Lam Dong	0.066	(0.43)	(0.29)	-0.265	(1.48)	(1.11)
	Long An	-0.106	(0.77)	(0.42)	-0.392	(2.46)	(1.40)
Ownership	Private/sole proprietorship	0.414***	(4.42)	(2.71)	0.183	(1.62)	(0.98)
	Partnership/Collective/Cooperative	0.218	(1.41)	(1.26)	0.245	(1.39)	(1.35)
	Limited liability company	0.613***	(6.48)	(3.57)	0.360*	(3.07)	(1.80)
	Joint stock company	0.498**	(2.40)	(2.07)	0.255	(0.94)	(0.87)
Sector dummies included	Yes			Yes			
Observation	2738			2738			
Pseudo R-squared	0.21			0.15			

Note: Probit, marginal effects at the mean of all variables. Standard robust and/or cluster robust standard errors. *, **, *** indicates significance at a 10%, 5% and 1% level, respectively. Base: Micro enterprise, HCMC, Household enterprise, Food processing (ISIC 15).

Table 4.12: Additional Bribe Determinants

		Un-weighted			Weight Adjusted		
		Probit	t-stats robust	t-stats cluster	Probit	t-stats robust	t-stats cluster
Registration/Tax	Registered	0.921***	(10.43)	(6.42)	0.784***	(8.24)	(5.10)
	Have tax code	0.694***	(8.45)	(5.79)	0.480***	(5.27)	(3.58)
	Under NEL	0.764***	(7.88)	(5.03)	0.532***	(4.58)	(2.82)
	Have a LURC	-0.049	(0.85)	(0.65)	-0.030	(0.44)	(0.37)
Network	Party member	-0.016	(0.16)	(0.12)	0.049	(0.38)	(0.37)
	War veteran	0.087	(0.85)	(0.97)	0.097	(0.74)	(0.99)
	Member of local cadre	0.136	(1.21)	(0.96)	0.108	(0.79)	(0.64)
	Bank connection	0.202***	(3.26)	(2.94)	0.220**	(2.89)	(2.40)
	Organization connection	-0.014	(0.21)	(0.13)	0.041	(0.49)	(0.32)
Assistance	Received government assistance	0.282***	(4.42)	(2.63)	0.329***	(4.32)	(3.17)

Note: Determinants in Table 4.11 are included in all specifications. Due to multicollinearity, the above determinants are included separately, together with the usual suspects from Table 4.11.

In the network category it is only enterprises with close bank connections that have higher bribe incidence. Finally, the data tells us that there is a clear positive connection between bribe payments and receiving assistance from government officials.

5 Employment, Education and Social Insurance

The purpose of this section is to analyze the structure of the labour market in Vietnamese manufacturing enterprises. The section will focus on owner and employee characteristics and their relationships to the social benefits offered to employees.

5.1 Owner Characteristics

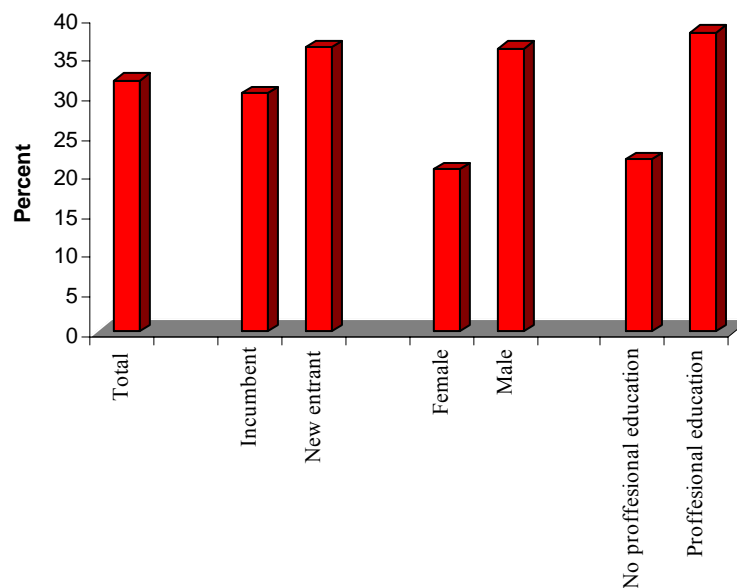
Owner characteristics related to gender and education (managerial skills) is often included in analyses explaining enterprise dynamics. Table 5.1 provides an overview of some typical owner characteristics by enterprise size and age (new entrant).

Table 5.1: Basic Owner Characteristics
(percentage shares)

		Micro	Small	Medium	Large	Total	New entrant
Gender	Percent male ownership	69.2	68.9	71.4	87.5	69.4	66.9
Age	Average age (in years)	44.9	44.0	44.7	47.9	44.7	40.7
Ethnicity	Percent "Hoa"	6.8	6.9	4.8	0.0	6.6	6.0
General education	No education	0.2	0.0	0.0	0.0	0.1	0.1
	Not finished primary	2.8	1.1	0.5	0.0	2.1	1.4
	Finished primary	10.1	3.2	1.9	0.0	7.4	5.1
	Finished lower secondary	39.5	23.3	8.7	12.5	32.2	27.9
	Finished upper secondary	47.4	72.4	88.9	87.5	58.2	65.5
Professional education	No professional education	43.7	25.5	11.1	0.0	35.6	33.3
	Vocational	38.4	28.6	13.0	6.3	33.4	27.5
	Technical secondary	8.4	15.6	15.4	12.5	11.1	12.7
	College/University/Doctoral	9.5	30.3	60.5	81.2	19.9	26.5
Previous work status	Wage employee in state enterprise	22.7	28.1	36.7	50.0	25.5	26.4
	Wage employee in non-state enterprise	24.3	27.0	29.5	12.5	25.4	28.5
	Self-employed in manufacturing	10.7	7.0	3.8	0.0	9.0	6.7
	Self-employed in trade/services	18.8	21.7	16.2	18.8	19.5	22.1
	Work in agriculture	16.0	6.9	2.9	0.0	12.3	9.5
	Student	3.9	5.7	2.9	12.5	4.4	3.9
	Teacher	0.7	1.4	1.0	0.0	0.9	0.7
	Other	2.9	2.3	7.1	6.2	3.0	2.1
Previous occupation	Professional, technical and related	10.2	21.5	23.8	31.2	14.6	15.4
	Administrative and managerial	7.0	15.4	36.2	43.8	11.9	13.5
	Clerical and related worker	2.5	6.2	7.1	0.0	3.9	6.5
	Sales worker	7.1	7.8	5.7	0.0	7.1	8.8
	Service worker	6.8	4.0	1.9	0.0	5.6	5.0
	Manual worker in agriculture	14.7	6.5	2.4	0.0	11.3	8.8
	Manual worker in industry or services	36.5	24.5	12.9	18.8	31.1	27.6
	Other, not well defined	10.6	7.4	6.7	0.0	9.3	8.9
Did not work	4.7	6.8	3.3	6.2	5.2	5.5	

First, around 70 percent of enterprises are owned by males. Compared with the survey done in 2002 this marks a sharp increase in female ownership of Vietnamese manufacturing enterprises (from 20 to 30 percent). Second, enterprise owners are on average 44.7 years old, whereas owners of newly established enterprises are somewhat younger. Third, the relatively high educational level in Vietnam comes out clearly from the data. Very few enterprise owners have no formal education and over 90 percent has at least lower secondary education. It is impressive that 20 percent have a college or university degree, a figure which is even higher for the new entrant category. As expected, owner educational level increases with enterprise size. Fourth, previous experience adds to the general human capital of owners, and the data show that nearly 30 percent of owners were self-employed in their previous job-function. Moreover, around 42 percent were occupied as manual workers in their previous job.

Figure 5.1: Enterprise Owner Spin-off



It is common for employees to leave incumbent enterprises to establish new enterprises in the same line of business, a characteristic referred to as spin-offs (Klepper and Thompson, 2005). These enterprises have been found to perform relatively well in terms of both growth and survival (see Hansen, Rand and Tarp, 2006). Figure 5.1 documents whether the owner had any experience as a wage-worker in the same line of business prior to establishing a enterprise. Some 32 percent of enterprise owners worked in the same line of business prior to the establishment of the enterprise.

Male owners with some sort of professional education operating a newly established enterprise are more likely to have had prior experience in the same line of business.

In the highly dynamic Vietnamese economy people often have more than one job. It is therefore important to capture whether the household of an enterprise owner is strongly influenced by the income generated by the enterprise or whether it only represents secondary income. If an enterprise is not the main income of the enterprise it might influence the effort used on the enterprise and thereby influence enterprise dynamics. Table 5.2 gives an overview of these issues by the gender of the owner.

Around 30 percent of enterprise owners have one or more jobs besides having the enterprise, with slightly more women having “second jobs” than male owners. Only 1.7 percent of enterprise owners have more than one enterprise, meaning that the additional jobs are mainly on contracts as normal wage earners. Some 90 percent of enterprise owners consider the enterprise as the main source of income, with a higher percentage reported by male than women enterprise owners.

Table 5.2: Enterprise Importance for Owner Income Flows
(percentage shares)

		Total	Male	Female
Owner currently has other jobs?		29.7	29.0	31.4
Owner currently has more than one enterprise?		1.7	1.8	1.3
Enterprise the main source of income for the owners household?		89.9	92.2	84.6
How much has the total household real income has changed since 2002	Declined	17.8	16.7	20.4
	Unchanged	20.8	19.1	24.9
	0-25%	44.0	46.3	38.7
	25-50%	12.4	12.9	11.2
	50-100%	3.4	3.4	3.2
	Above 100%	1.0	1.3	0.4
	Don't know	0.6	0.3	1.2

5.2 Employee Characteristics

This section focuses on the education and the composition of employees. In the introduction to Section 3 we discussed whether or not enterprises found worker skill and education levels to be a

constraint to enterprise operations, and only around 3-4 percent reported that worker qualifications and education levels posed a constraint to future growth. The apparent satisfaction with worker education clearly reflects the general high educational level in Vietnam. Table 5.3 shows the response by enterprise owners to the question whether they find it difficult to recruit new workers with appropriate skills. However, we see that difficulties in finding skilled workers increase with enterprise size, indicating that appropriate human capital might be a binding constraint for larger enterprises.

Table 5.3 also shows how enterprises recruit workers. Most new workers are recommended by friends, relatives and close personal contacts to the owner, even among larger enterprises. This might explain why some enterprises experience difficulties in recruiting workers with appropriate skills and it highlights the need among larger enterprises to engage in a more sophisticated recruitment processes.

Table 5.3: Worker Selection and Wage Determination
(percentage shares)

	Enterprise's experience difficulties in recruiting workers with appropriate skills in 2004?				
	All	Micro	Small	Medium	Large
Yes	11.9	5.3	19.5	34.8	50.0
No	49.5	44.1	60.0	52.8	50.0
Did not need to recruit	38.6	50.6	20.5	12.4	0.0
	How does the enterprise hire workers?				
	All	Micro	Small	Medium	Large
Newspaper, advertisement	7.4	3.6	9.1	18.6	6.3
Through labour exchange	4.6	4.1	4.7	4.9	18.8
Recommended by friends, relatives etc.	45.6	42.6	51.8	36.6	56.3
Recommended by local authorities	1.6	0.6	1.6	5.5	0.0
Personal contacts	34.9	47.0	25.6	16.9	0.0
Through employment service centres	5.9	2.2	7.0	16.9	18.8
Other	0.1	0.0	0.2	0.5	0.0
	What is the main basis for determining wage rates?				
	All	Micro	Small	Medium	Large
Wage rates in local non-state enterprises	16.6	15.5	16.6	22.7	12.5
Wage rates in local state enterprises	1.1	0.6	1.4	2.9	6.3
Set by authorities	0.9	0.4	1.0	3.9	0.0
Wage rate for employment in agriculture	1.6	1.7	1.7	1.0	0.0
Individual negotiation with each worker	49.3	52.9	47.1	38.6	25.0
Paying capacity of the enterprise	28.9	27.1	30.6	30.4	56.3
Other	1.5	1.7	1.5	0.5	0.0

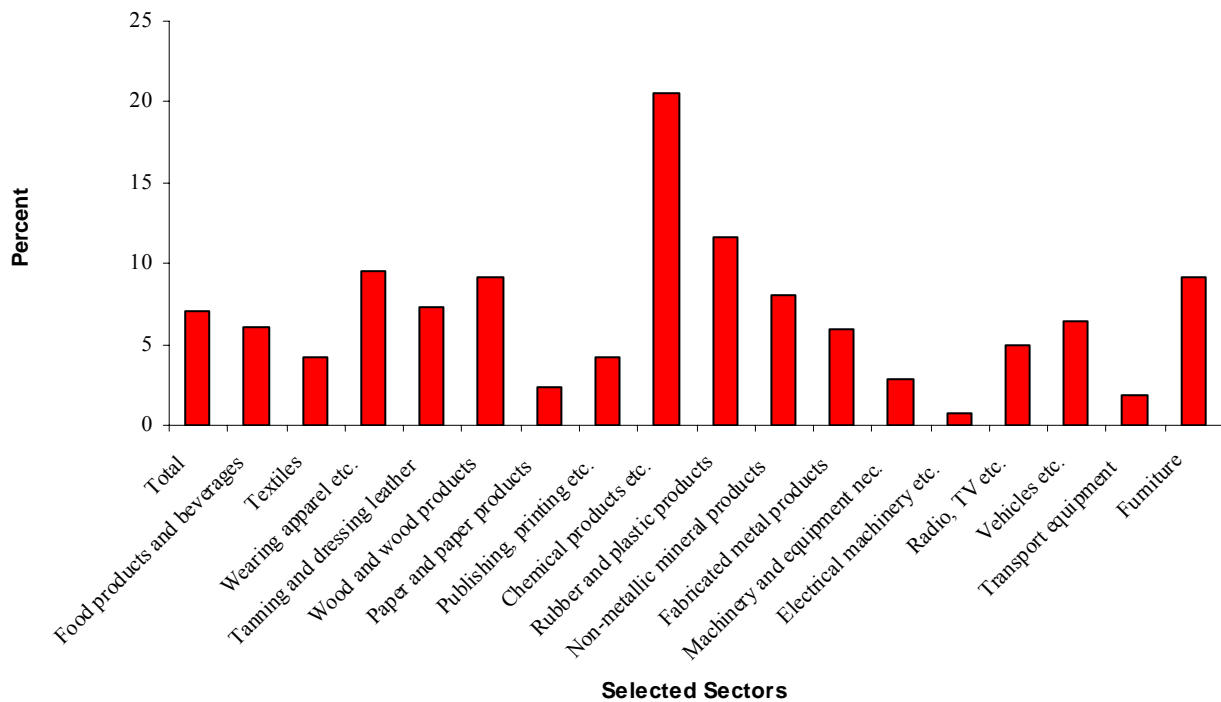
Note: In the question on how to recruit workers we only used info on the enterprises that recruited workers in 2004. Moreover, the wage determinant figures are based on 2211 observations.

Finally, Table 5.3 documents the main basis for determining wages in Vietnamese manufacturing. Only few enterprises set wage rates using some function of the state (minimum) wage as the principal criteria. Most enterprises carry out individual negotiations with each worker or pay according to the capacity of the enterprise. This implies that discussions among the government, unions and private sector regarding minimum wage may have limited effects except on the bottom of the income distribution.

The very flexible labour market conditions are often mentioned as one of the strong characteristics of the business environment in Vietnam. Regulations relating to the hiring and firing of workers, which impact enterprise performance by introducing inefficiencies into the labour market, are considered minor in Vietnam. This is confirmed in Figure 5.2, which shows the number of temporary workers to permanent employees. A high ratio of temporary to permanent workers may imply that hiring and firing costs are prohibitive, thus encouraging greater use of short-term contracts. The average temporary to permanent workers ratio is 7.2 percent. This is fairly low as compared to, for example, a highly regulated country as Mozambique (DNEAP, 2006). Moreover, note also that the use of temporary contracts may relate to seasonal occupations and there is, as expected, a huge difference in the use of temporary employees across sectors.

Another aspect of the composition of the workforce is related to the job function carried out by each worker. Table 5.4 gives an overview of the composition of employees by occupation category. First, some 64 percent of employees in the enterprises considered are male workers. However, the share of women employees increases with enterprise size (for medium sized enterprises the gender composition is almost 50-50). Second, managers are more often male (independent of enterprise size), whereas women are more dominant among office, sales and service workers. Note also that the share of managers decreases, whereas the share of professionals (engineers, economists, technicians and others with university and college degrees) increases with enterprise size.

Figure 5.2: Temporary to Permanent Employee Ratio by Sector



Finally, the total share of production workers is around 80 percent. Notably the share of women production workers increases significantly with enterprise size while it decreases for men. The gender composition is roughly constant across enterprise size, and this is mainly driven by a sharp increase in the employment of female production workers, and not so much by changes in relative composition among managers and professionals.

Table 5.4: Worker Composition by Gender and Occupation Category (percentage shares)

	Total		Micro enterprises only		Small enterprises only		Medium enterprises only	
	Male	Female	Male	Female	Male	Female	Male	Female
Total	64.3	35.7	66.7	33.3	62.3	37.7	52.6	47.4
Managers	6.9	3.3	8.0	3.9	5.6	2.6	2.4	1.2
Professionals	1.8	1.8	0.5	0.8	3.6	3.4	5.4	3.6
Office workers	0.3	0.9	0.0	0.3	0.7	1.8	1.3	2.6
Sales personnel	0.6	2.1	0.4	2.4	1.1	1.9	1.0	1.1
Service workers	0.1	0.5	0.0	0.3	0.1	0.7	0.1	1.0
Production workers	54.6	27.1	57.8	25.6	51.2	27.3	42.4	37.9

Note: All figures in percentages

5.3 Worker Benefits

Social awareness in enterprises is becoming more and more central, particularly given the focus of sociological studies which have taken on women’s higher social commitment. This sub-section looks at the connection between the gender of enterprise owner and the benefits offered to and received by workers.

Table 5.5 looks at on-the-job training and possibilities for job rotation. There is no major difference between male and female owned enterprises when it comes to offering on-the-job training or different rotation schemes for production workers. Around 13 percent of enterprises formally train new employees and 6 percent offer training programmes for existing workers. Some 28 percent of enterprises have an automatic job-rotation system for production workers. This reduces repetitive strain injuries (RSI).

Table 5.5: On-the-Job Training and Job Rotation
(percentage shares)

	Percent that normally train new workers	Percent that normally train (short term) existing workers	Percent with an automatic job rotation system among production workers
Total	13.5	5.7	27.8
Male Owners	14.2	6.2	28.0
Female Owners	11.9	4.8	27.2

Note: All figures in percentages.

Social insurance and other benefits are offered to workers in Vietnam, both formally and informally. Table 5.6 gives an overview of social insurance and worker benefits by gender of owner. First, around 15 percent pay social and health insurance contributions for its employees, and approximately 42 percent compensate workers (informally) for accidents or illness obtained at the workplace. Notably, a larger share of female owned enterprises pay social and health insurance contributions confirming the anecdotal evidence of women’s higher social responsibility in general.

Other worker benefits confirm this conclusion. A larger share of enterprises owned by women give sick leave with pay as well as paid maternity leave and annual leave with pay than their male counterparts. Moreover, the probability of receiving severance pay is higher in enterprises owned by women.

Table 5.6: Social Insurance and Worker Benefits by Gender of Owner
(percentage shares)

	All	Male	Female
Pay contribution to social insurance for employees	14.9	13.7	17.7
Pay contribution to health insurance for employees	15.3	14.2	17.8
Compensate workforce directly for accidents or illness	42.4	42.2	42.8
Employees enjoy any of the following benefits (directly or from the government)	a) Sick leave with pay	30.1	28.9
	b) Paid maternity leave	17.7	16.5
	c) Annual leave with pay	21.5	19.7
When you lay off workers do you in general provide them with severance pay	25.6	23.7	30.0

Table 5.7 gives an overview of HIV activities and policies at the enterprise level. First of all, very few enterprises perceive the HIV/AIDS epidemic as having an effect on enterprise performance and recruitment of labour. Second, only very few enterprises have a HIV/AIDS policy, and it is basically only larger enterprises which have such a policy (not reported).

Table 5.7: HIV Activities and Policies
(percentage shares)

	Total	Male	Female
Percent of enterprises reporting that HIV/AIDS epidemic has a notable effect on enterprise performance	0.2	0.2	0.2
Does your enterprise have an HIV/AIDS policy	1.5	1.8	0.7
Does your enterprise participate in activities related to HIV/AIDS prevention among its workers	4.7	4.8	4.5
If yes, which activity	HIV prevention messages	89.9	91.2
	Free condom distribution	12.7	12.4
	Counselling for HIV/AIDS	41.7	41.1
	Anonymous HIV testing	8.7	9.0
	Financial support for dependents on HIV-infected workers	8.8	8.0
	Other	23.8	26.7

Around 5 percent of enterprises participate in activities related to HIV/AIDS prevention. The dominant activity is HIV prevention messages (90 percent) and counselling for HIV/AIDS (42 percent).

Finally, we look at local trade unions by the gender of the owner, enterprise size and location. Table 5.8 shows that only 9.5 percent of the enterprises sampled have a local level trade union. However, if the enterprise has such a trade union it covers a substantial part of the local plant labour force (on average 76 percent).

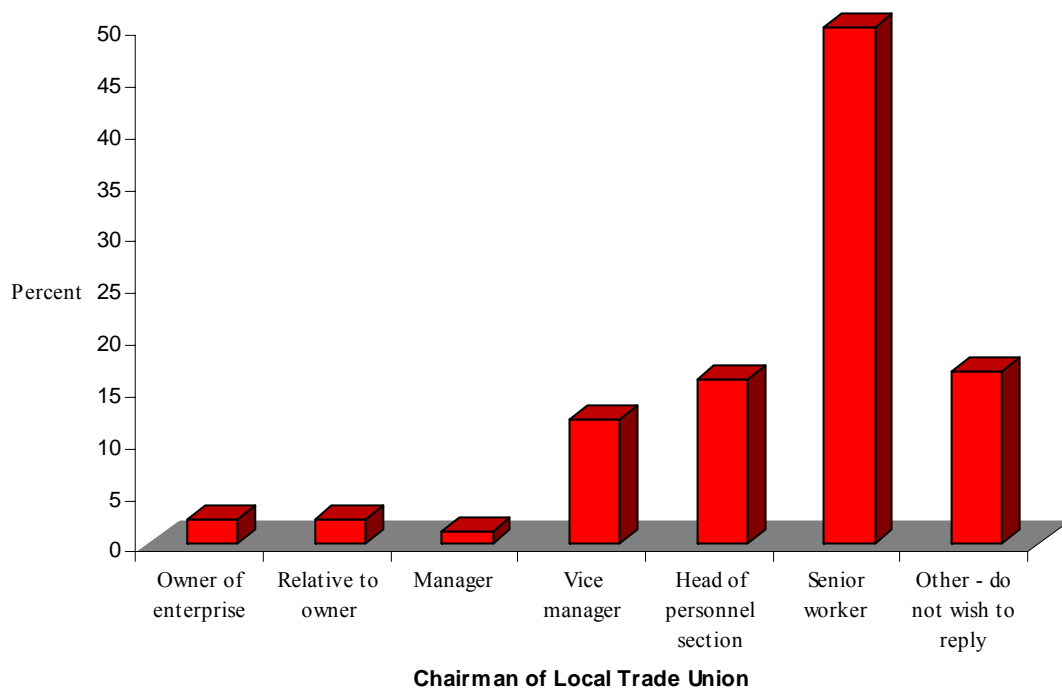
Table 5.8: Trade Union
(percentage shares)

	Percent of enterprises having a local/plant level trade union?	What percentage of workers in the enterprise are members of this trade union?
All	9.5	75.9
Male Owner	9.2	77.7
Female Owner	10.1	72.2
Micro	0.1	100.0
Small	15.6	79.9
Medium	56.2	72.8
Large	93.8	63.8
Ha Noi	12.7	79.3
Phu Tho	2.9	72.4
Ha Tay	3.5	84.2
Hai Phong	14.7	91.7
Nghe An	5.2	84.8
Quang Nam	0.0	..
Khanh Hoa	5.0	98.0
Lam Dong	5.8	83.4
HCMC	19.6	68.5
Long An	2.3	70.0

As expected, major differences between micro and large enterprises exist. Only two micro enterprises (0.1 percent) have a local trade union as compared to 56 and 94 percent for medium and large enterprises, respectively. More enterprises have a local trade union in urban areas as compared to the rural counterparts, which is to some extent related to the enterprise size being larger in urban areas.

The coverage of local trade unions is fairly weak in Vietnamese manufacturing. Figure 5.3 shows that the structure of the local trade union is far from what is intended for such an institution. Only half of the local trade unions have a senior worker as chairman. In 33 percent of the cases the chairman is owner of the enterprise, a relative of the owner, manager, vice-manager or head of the personnel section.

Figure 5.3: Chairman of Local Trade Union



This analysis suggests that there is a clear need for improving the conditions for local level trade unions, both in terms of the number of enterprises committing themselves to establishing such and institution and respecting their organizational structure.

6 Production, Technology and Efficiency

In Section 3 we showed that enterprise owner perception of the most constraining factors to growth did not include the lack of raw materials, skilled workers, suitable technology and modern machinery and equipment. This suggests that the foundation for high technological efficiency among Vietnamese manufacturing enterprises is present. In this section we therefore review the efficiency of Vietnamese manufacturing enterprises.

6.1 Diversification and Innovation

Product diversification is a characteristic often linked with improvements in the probability of survival. Gaining market power, avoiding risk, having access to funds, making products compatible and reaping efficiency gains are, in the view of Jovanovic (1993), some of the potential benefits from diversification. However, diversification may come at the cost of lower short-run revenue growth rates.

Figure 6.1: Diversification

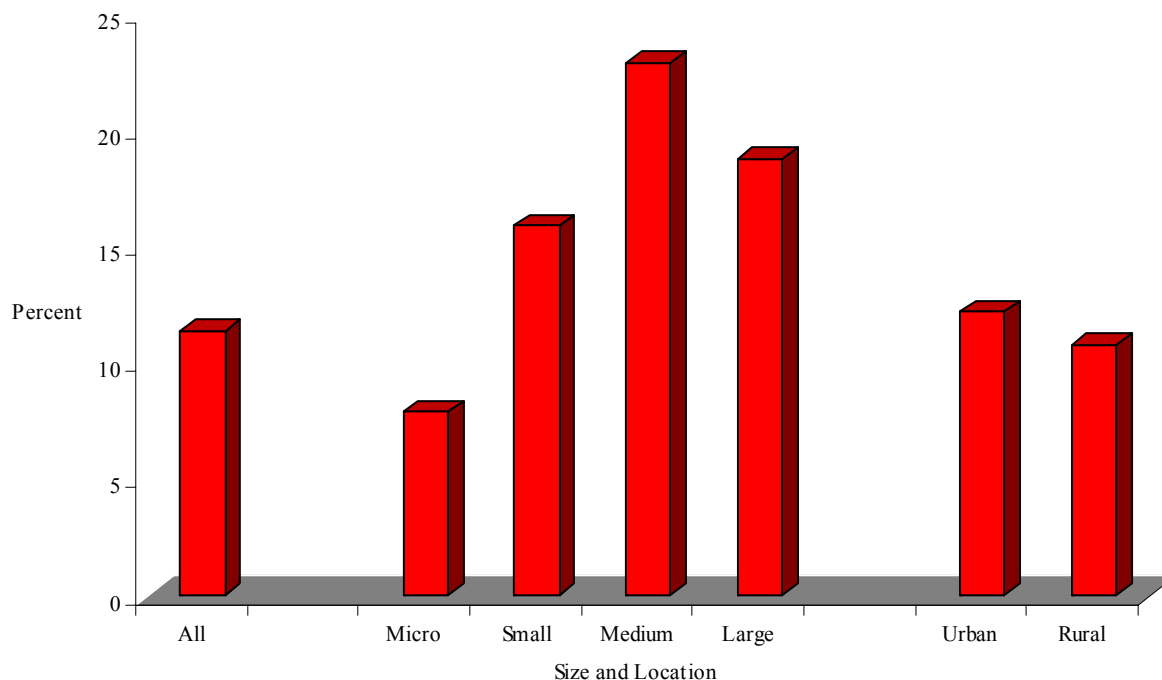


Figure 6.1 demonstrates that only some 12 percent of the enterprises produced more than one product (different ISIC 2 digit level products). This means that the average Vietnamese manufacturing enterprise is relatively specialized. We do not find any differences between new entrants and incumbents in terms of diversification and a simple t-test of the growth rate of revenue per employee by diversification rate is not significant. This means that growth rates do not differ significantly based on whether the enterprise is highly specialized or diversifies into production of several goods.

It has also been suggested that enterprise level innovations should be considered as a potential driving force behind enterprise dynamics. Jovanovic and MacDonald (1994) find that experienced enterprises are more capable of pursuing innovations, and, drive the process of technological change. Technological laggards exit because successful innovators force down prices. Moreover, Klepper (1996) argues that enterprise size and the ability to appropriate returns from innovations may be related. He highlights the importance of enterprise size in appropriating returns from innovations and, in his analytical framework, price declines eventually limit further entry so that older enterprises with the best innovative capabilities get larger shares of the industry output. This could explain the pattern found in Table 6.1, showing innovation rates by age, size, location and gender of owner.

Table 6.1: Innovation Rates

	Introduced new product	Introduced new technology
All	40.6	29.5
New entry	44.3	33.1
Incumbent	39.1	28.0
Micro	32.6	19.1
Small	51.1	42.0
Medium	62.9	63.8
Large	87.5	81.3
Urban	47.2	36.2
Rural	35.6	24.4
Male	43.6	30.5
Female	34.0	27.3

First, around 41 percent of the enterprises sampled introduced a new product during the past three years (since 2002).⁶ For comparison only 30 percent introduced a new technology into the production process. In both cases we find a clear enterprise size effect: Larger enterprises are more innovative and improve technological production processes more often. Moreover, there is, on average, an indication of new entrant enterprises owned by males operating in urban areas being more innovative and having a higher probability of introducing new technology.

Table 6.2: Reasons for Innovation

	New product
Difficulty in selling old product	6.8
Increasing competition from domestic producers	28.7
Increasing competition from foreign competitors	2.4
Requested by purchasing customers	61.5
Other	0.6
	New technology
Needed upgrading in order to face competition	37.3
Upgrading in order to increase profits	22.0
Required by buyers to improve quality	35.2
Required by law, regulations	1.0
Other	4.5

Note: All figures in percentages

Table 6.2 looks at the reasons for introducing new products and technologies. Innovation primarily takes place due to competitive pressure and to fulfil standards required by the customer, while, only 22 percent of the enterprises upgraded technology to increase profits.

Table 6.3 shows the results of probit estimations for determining diversification, innovation and adoption of new technology in Vietnamese manufacturing using the usual suspects (location, ownership form, sector, size and age) described previously. Given the discussion in Section 5, we also included owner characteristics as potential determinants. All estimations use appropriate enterprise weights taking into account the survey design (i.e. stratification of the survey sample and the clustering of enumeration areas/districts) and results are reported with cluster robust *t*-stats. First, the above enterprise size effect is strongly supported by the results in Table 6.3. Larger enterprises diversify, are more innovative and have a higher probability of adopting new technology. Looking at location, HCMC consists of more specialized enterprises (only positive coefficients in the location variables with HCMC as base). One explanation for this phenomenon

⁶ New product is defined as a new 2-digit level ISIC product.

could be that competition is fiercer in HCMC than in any other province considered. This may force enterprises to specialize more – an issue that will be further pursued in Section 7. Another striking result is that enterprises in Hanoi and Khanh Hoa have a higher probability of introducing new technologies than in HCMC. Owner characteristics also come out as key determinants for diversification, innovation and new technology adoption.

Table 6.3: Diversification and Innovation Determinants

		Diversification		Innovation		New Technology	
		Marginal effects	<i>t</i> -stats cluster	Marginal effects	<i>t</i> -stats cluster	Marginal effects	<i>t</i> -stats cluster
Age	New entrant	-0.014	(1.09)	0.016	(0.59)	0.014	(0.50)
Size	Small	0.052***	(2.62)	0.114***	(3.07)	0.172***	(4.48)
	Medium	0.049*	(1.91)	0.249***	(3.50)	0.417***	(5.90)
	Large	-0.045	(1.13)	0.497***	(2.94)	0.578***	(3.12)
Location	Ha Noi	0.073**	(2.07)	0.073	(1.03)	0.228***	(2.95)
	Phu Tho	0.038	(1.06)	-0.019	(0.29)	-0.011	(0.16)
	Ha Tay	0.033	(0.73)	-0.020	(0.16)	0.133	(0.92)
	Hai Phong	0.102**	(2.04)	0.055	(0.68)	0.112	(1.28)
	Nghe An	0.037	(1.22)	-0.043	(0.62)	0.054	(0.55)
	Quang Nam	0.280***	(6.03)	-0.113*	(1.87)	0.013	(0.18)
	Khanh Hoa	0.081*	(1.70)	0.135	(1.37)	0.305***	(3.67)
	Lam Dong	0.123***	(3.21)	0.162*	(1.91)	0.115	(1.10)
	Long An	0.067*	(1.76)	0.177***	(2.80)	0.085	(1.12)
Ownership	Private/sole proprietorship	0.055**	(2.30)	0.179***	(3.10)	0.171***	(3.30)
	Partnership/Collective/Cooperative	0.099***	(2.98)	0.002	(0.03)	-0.013	(0.18)
	Limited liability company	0.113***	(3.36)	0.041	(0.87)	0.103**	(2.53)
	Joint stock company	0.092**	(2.33)	0.190*	(1.92)	0.107	(1.41)
Owner characteristics	Gender	-0.005	(0.43)	0.113***	(4.75)	0.052**	(2.05)
	Education	0.028**	(2.48)	0.029	(1.08)	0.052*	(1.70)
Sector dummies included		Yes		Yes		Yes	
Observation		2,701		2,701		2,701	
Pseudo R-squared		0.11		0.11		0.10	

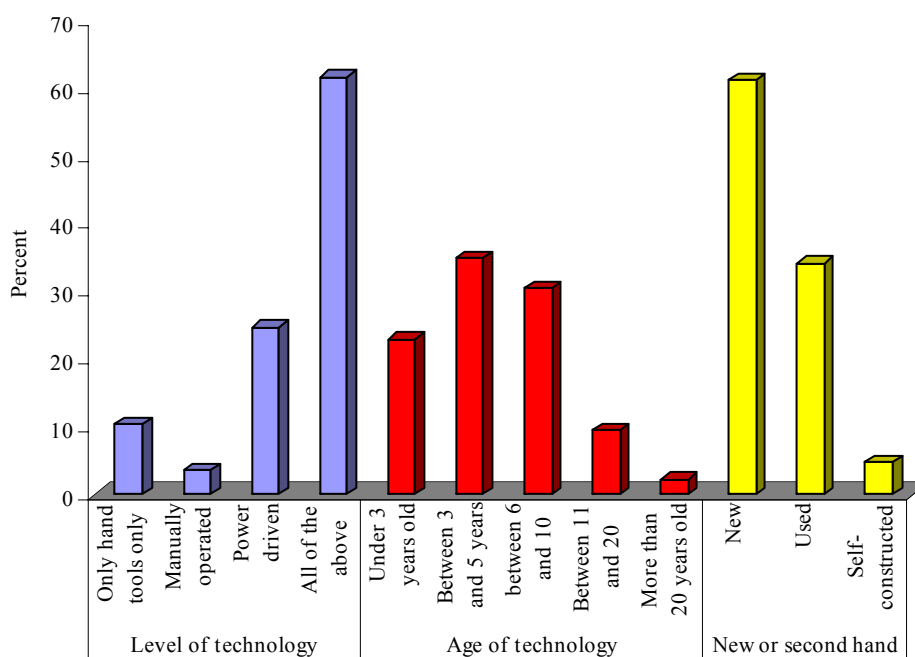
Note: Probit, marginal effects at the mean of all variables. Standard robust and/or cluster robust standard errors. *, **, *** indicates significance at a 10%, 5% and 1% level, respectively. Base: Micro enterprise, HCMC, Household enterprise, Food processing (ISIC 15).

Owner education seems to matter for the diversification and new technology adoption decision, whereas gender of the owner is important in determining innovation and implementation of new technologies. Educated owners have a higher probability of engaging in production of more than one product and male owners are more innovative. Moreover, being male and having higher level education increases the probability of introducing a new technology into the production process.

6.2 Capacity Utilization and Technical Efficiency

Before looking at capacity utilization rates Figure 6.2 show some characteristics of the technology employed by Vietnamese manufacturing enterprises. Around 10 percent of enterprises use only hand tools in their production. The machinery and equipment used is fairly new – some 88 percent is no more than 10 years old. Finally, more than 61 percent of the technology was purchased new, whereas around 34 percent was bought second hand. Recently theory has emerged that enterprises which buy used capital goods are often the ones severely credit constrained. This hypothesis will be pursued in Section 8, which studies access to finance.

Figure 6.2: Technology Characteristics



Enterprises were asked by how much they would be able to increase their production from the present level using existing equipment/machinery only. Table 6.4 shows the results by age, enterprise size and location.

Around 17 percent would not be able to increase production and around two-thirds could increase its production level by no more than 25 percent. This indicates that capacity utilization rates are relatively high in Vietnamese manufacturing. In the enterprise size category, micro and small

enterprises are closer to producing at their optimal capacity than medium and large enterprises. Similarly, 7 percent of urban enterprises could more than double their existing production as compared to 1.6 percent in rural areas.

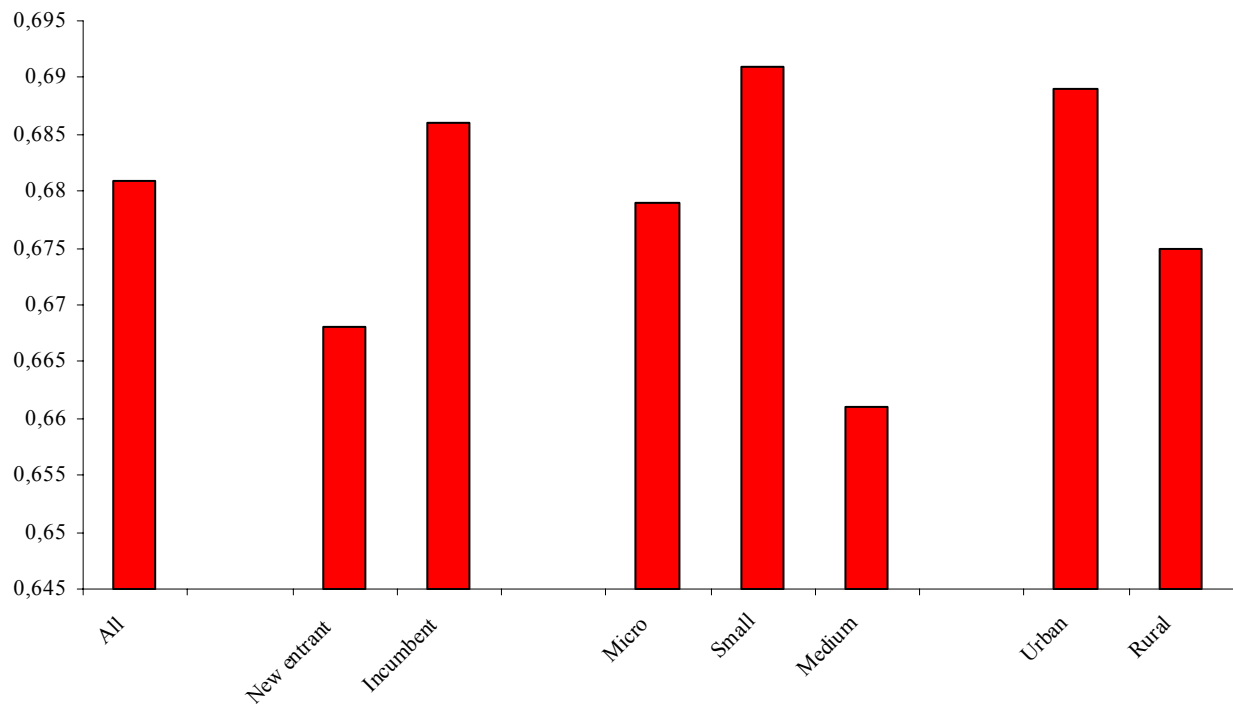
Table 6.4: Capacity Utilization

		Not at all	By no more than 10 percent	By between 10 and 25 percent	By between 25 and 50 percent	By between 50 and 100 percent	By more than 100 percent
Total	All	16.8	21.7	29.1	20.8	7.7	3.9
Age	New entrants	15.9	22.5	28.9	21.6	7.2	3.9
	Incumbents	17.1	21.3	29.2	20.5	8.0	3.9
Size	Micro	17.7	22.2	28.2	19.5	8.3	4.0
	Small	16.1	20.1	29.9	24.0	6.8	3.3
	Medium	11.9	23.8	34.3	17.6	7.1	5.3
	Large	12.5	12.5	25.0	43.8	0.0	6.3
Location	Urban	17.6	21.6	26.8	19.3	7.7	7.0
	Rural	16.1	21.7	30.9	22.0	7.8	1.6

Note: Question – "How much can the enterprise increase its production using existing equipment/machinery only."

Figure 6.3 examines technical efficiency in Vietnamese manufacturing.

Figure 6.3: Average Technical Efficiency



Technical efficiency is estimated using a stochastic frontier production model (value added as output measure) in which total employment and the value of physical capital is used as inputs. Technical efficiency indicates enterprise ability to produce the highest level of output from a given bundle of labour and capital. An enterprise operating at the highest level of efficiency possible is expected to have a technical efficiency index of one.

The average technical efficiency is around 0.68. Tybout (2000) finds little support for the view that developing country markets are relatively tolerant of inefficient enterprises and reports mean technical efficiency levels around 60 to 70 percent of the best practice frontier. Our technical efficiency results for Vietnamese manufacturing are within this range. The figure suggests that incumbent enterprises are technically more efficient than new entrants, and the same goes for urban enterprises compared with its rural counterparts. This is confirmed by Table 6.5, which reports the result of a technical efficiency regression with the usual suspects as determinants.

Table 6.5: Technical Efficiency Determinants

		Coefficient	t-stat
Age	New entrants	-0.028**	(2.18)
Size	Small	0.003	(0.39)
	Medium	-0.022	(1.52)
	Large	-0.369***	(5.42)
Location	Ha Noi	-0.065***	(2.93)
	Phu Tho	-0.038***	(2.57)
	Ha Tay	-0.041*	(1.89)
	Hai Phong	-0.065***	(2.78)
	Nghe An	-0.073***	(2.61)
	Quang Nam	0.009	(0.58)
	Khanh Hoa	0.048***	(2.77)
	Lam Dong	0.026***	(2.81)
	Long An	0.061***	(3.42)
Ownership	Private/sole proprietorship	0.003	(0.25)
	Partnership/Collective/Cooperative	-0.030	(0.81)
	Limited liability company	0.031**	(2.22)
	Joint stock company	0.034	(1.13)
Sector dummies included		Yes	
Observation		2,165	
Pseudo R-squared		0.12	

Note: OLS - Dependent variable: Technical efficiency. Weighted estimates. Cluster robust standard errors. * ** *** indicates significance at a 10%, 5% and 1% level, respectively. Base: Micro enterprise, HCMC, Household enterprise, Food processing (ISIC 15).

New entrants are less efficient than incumbents, a result consistent with results obtained by Aw *et al.* (2001) for Taiwanese manufacturing enterprises. Location plays a crucial role for determining technical efficiency. Looking closer at the provinces we find evidence of enterprises located in the

Northern provinces (Hanoi, Phu Tho, Ha Tay, Hai Phong and Nghe An) are less efficient than enterprises in the Southern provinces (Khanh Hoa, Lam Dong, Long An and HCMC).

6.3 Details on Production Inputs and Business Services

In this sub-section we focus on key inputs into manufacturing production processes. Generally enterprise owners perceive access to raw materials and energy as only a minor constraint to growth for the enterprise. This can be seen from Figure 6.4, which shows enterprise perceptions of raw material and energy availability. First of all, it is worth noting that rural and urban enterprises are equally satisfied with the quantity and quality of raw materials. A higher proportion of urban enterprises have difficulties in securing adequate supplies of energy and fuel. From Figure 6.4 it is clear that availability of raw materials and energy becomes an increasing problem with enterprise size.

Figure 6.4: Availability of Raw Materials and Energy

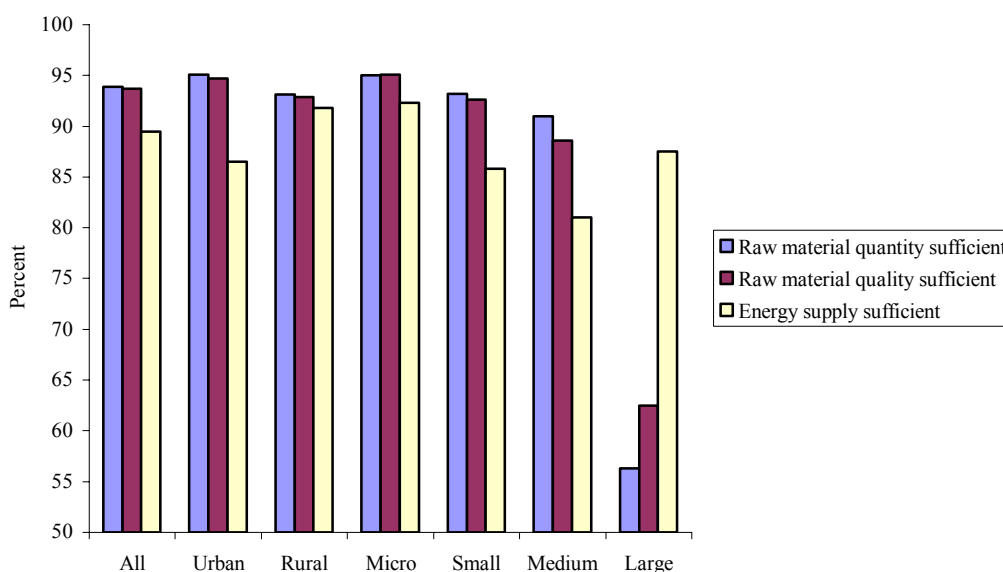


Figure 6.5 reports details on the provider of raw materials to the enterprise. Around 88 percent of enterprises get their raw materials from households or other non-state enterprises. Only 2.2 percent of the raw materials are imported. Some 24 percent of enterprises receive inputs from the agricultural sector (not reported), mainly going into the food processing sector (ISIC 15). Around 79 percent of intermediate inputs are provided by a supplier within the same province as the receiving enterprise. This helps keeping down transportation costs.

Finally, on Table 6.6 we focus on business services. Transport services are by and large the most important service cited by enterprises of all sizes. Some 55 percent consider transport services important for running their business. All other business services are used to a much lesser extent, but the usage of business services tends to increase with enterprise size. It should also be noted that 98 percent of the enterprises think that business services are readily available and delays in services have no significant effect on enterprise operations.

Figure 6.5: Details on Supplier of Raw Materials

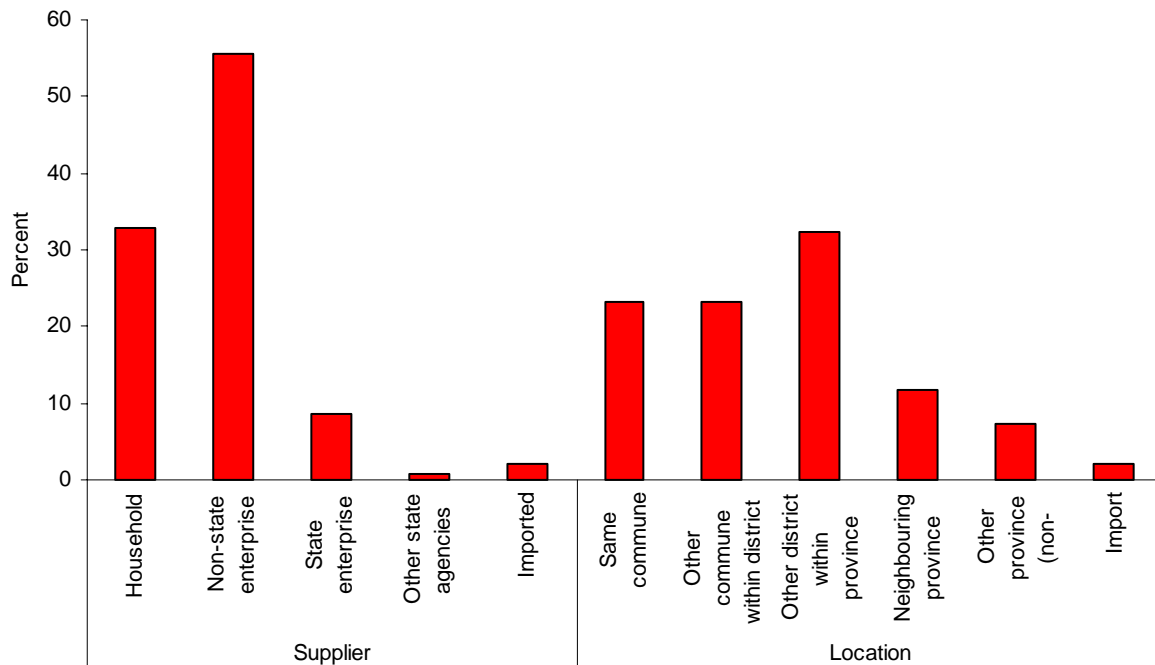


Table 6.6: Enterprises Considering the Following Business Services Important

	All	Micro	Small	Medium	Large
Market information and trade promotion services	1.9	1.2	2.6	4.3	0.0
Information services on technology and inputs	1.3	1.5	0.8	1.4	0.0
Transport services	55.1	50.4	62.6	65.2	56.3
Tax services	4.5	2.9	7.7	5.2	6.5
Audit services	0.8	0.1	2.0	1.4	12.5
Legal services	2.0	0.6	3.3	7.1	12.5
Don't use the above services	34.5	43.2	21.1	15.2	12.5

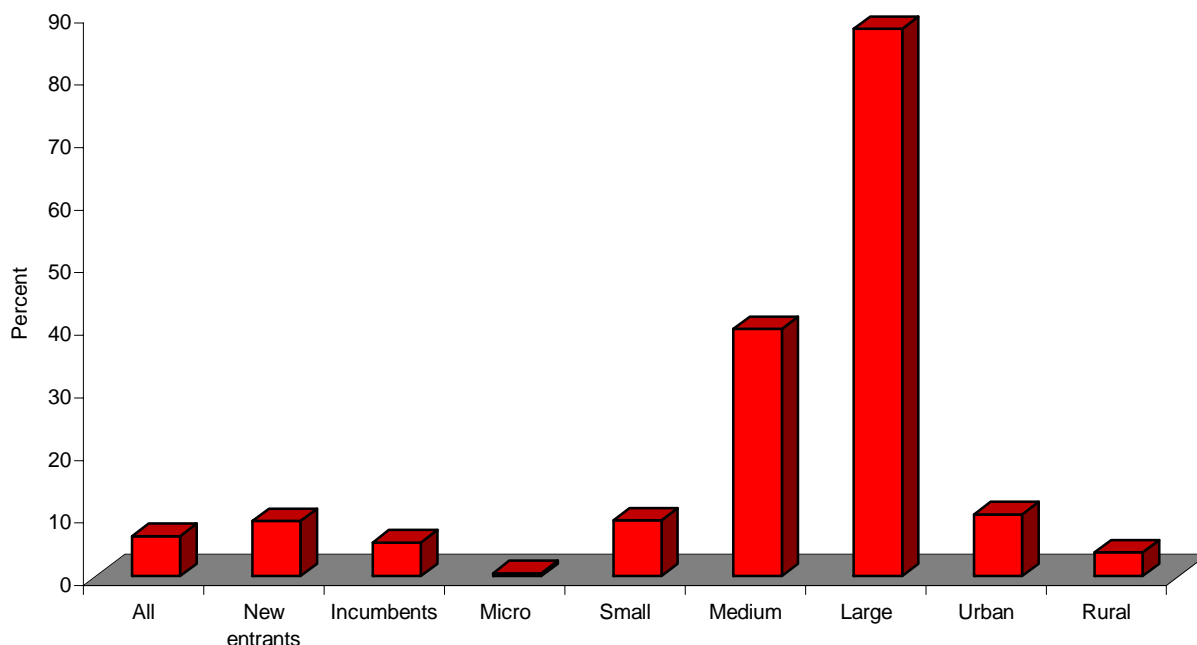
7 Exports and Sales Structure

In order to advise on which export oriented policies to pursue and whether it is sensible at all to encourage manufactured exports, we need to understand the export behaviour and the general sales structure of Vietnamese manufacturing enterprises. This section provides an overview of the insights which the 2005 SME survey can provide in this respect.

7.1 Export Behaviour

Figure 7.1 provides an overview of exporting enterprises. Some 176 enterprises out of the 2,739 surveyed engage in exporting activities, corresponding to 6.4 percent. The share of exporting enterprises among new entrants is higher than for incumbent enterprises. Also, there is a clear enterprise size effect. Larger enterprises have a higher probability of exporting. Finally, around ten percent of urban enterprises engage in exporting as compared to four percent in rural areas.

Figure 7.1: Percent Exporting



Looking closely at the 176 exporting enterprises Table 7.1 documents that over 60 percent of exporting enterprises total sales revenue comes from exporting. This share is higher for incumbent and rural enterprises than urban and new entrants.

Table 7.1: Details on Exporting Enterprises

	All	New Entrants	Incumbents	Urban	Rural
Observations	(119)	(44)	(75)	(87)	(32)
How many foreign customers does the enterprise have	5.1	5.1	5.1	4.8	5.9
What percentage of sales did the enterprise export	63.5	61.3	64.8	61.3	69.6
Receive product specifications, designs or materials from customer	71.7	78.1	68.1	69.5	77.4
Have long-term relations with your main foreign customer	86.6	84.1	88.0	86.2	87.5
Use legal advisors when entering direct export contracts	33.6	34.1	33.3	21.8	65.6
Foreign customers requested certification of your procedures/products	56.3	56.8	56.0	54.0	62.5
Cooperation with foreign partners provided technology or expertise directly	76.5	77.3	76.0	75.9	78.1

Note: Figures in percentages (Observations in parenthesis). Out of the 176 exporting enterprise only 119 enterprises provided information to the above questions.

The average number of foreign customers is five and the median three. Around 20 percent of exporting enterprises have only one customer, and 30 customers is the highest figure reported. This illustrates that exporting enterprises have relatively few foreign trading partners when engaging in direct exports. Seven out of ten enterprises receive product specifications, designs or materials from their foreign trading partner and foreign customers requested certification of the enterprise's products in over half of the cases. Only one-third of enterprises use legal advisors when entering direct export contracts, but two-thirds of rural exporters seek legal advice before committing to an export contract. Finally, over three quarters of exporting enterprises were provided with technology or expertise from their foreign partners that they otherwise would not have had access to.

Table 7.2 examines the determinants of exporting. We especially investigate whether efficiency (lagged) matters for exporting when controlling for enterprise age and size and other enterprise characteristics. First of all, we see that lagged technical efficiency is positively associated with the probability of exporting. It is difficult to assert a causal interpretation even though we have lagged the efficiency level. As we learned above, exporting enterprises are often provided with technology and expertise, which could make them more efficient. On the other hand, efficient enterprises may

self-select into the export market. It is beyond the scope of this report to determine causation, which is left for future research.

Table 7.2: Export Determinants

	Coefficient	t-stats
Efficiency (lagged)	0.014	(2.15)
Enterprise age (x 1,000)	0.007	(0.05)
Enterprise size (x 1,000)	0.365	(7.36)
Ha Noi	-0.003	(0.95)
Phu Tho	-0.003	(0.97)
Ha Tay	-0.004	(1.77)
Hai Phong	-0.001	(0.31)
Nghe An	-0.004	(2.00)
Quang Nam	-0.005	(3.30)
Khanh Hoa	0.005	(0.68)
Lam Dong	-0.002	(0.51)
Long An	-0.005	(2.51)
Private/sole proprietorship	0.017	(2.12)
Partnership/Collective/Cooperative	0.005	(0.58)
Limited liability company	0.031	(3.41)
Joint stock company	0.008	(1.06)
Sector dummies included		Yes
Observation		2,172
Pseudo R-squared		0.38

Note: Probit, marginal effects at the mean of all variables. Weighted estimates and cluster robust standard errors. *, **, *** indicates significance at a 10%, 5% and 1% level, respectively. Base: HCMC, Household enterprise, Food processing (ISIC 15).

Enterprise size, as expected, has a significant influence on the probability of exporting. Exporting enterprises are more likely to come from HCMC than from Ha Tay, Nghe An, Quang Nam and Long An. We also estimated a series of other specifications and it is worth noting (although not reported) that enterprises that have professionally educated owners have a higher probability of entering the export market. However, gender of the owner is not associated with exporting in this sample of Vietnamese manufacturing enterprises.

7.2 Sales Structure

The second part of this chapter focuses on enterprise sales structure. Figure 7.2 gives an indication of the perceived competition faced by the enterprises by a rural/urban distinction. Around 46 percent of enterprises state that they face severe completion in their line of business. Urban areas are more competitive than rural from this perception based measure. The same story evolves when

focusing on the enterprises that have accumulated goods which are difficult to sell. Sectors (not reported) which consider the competition most severe are: i) Paper and paper products, ii) Publishing etc. iii) Chemical product etc., and iv) Radio, TV etc. (ISIC 21, 22, 24 and 32).

Figure 7.2: Perceived Competition

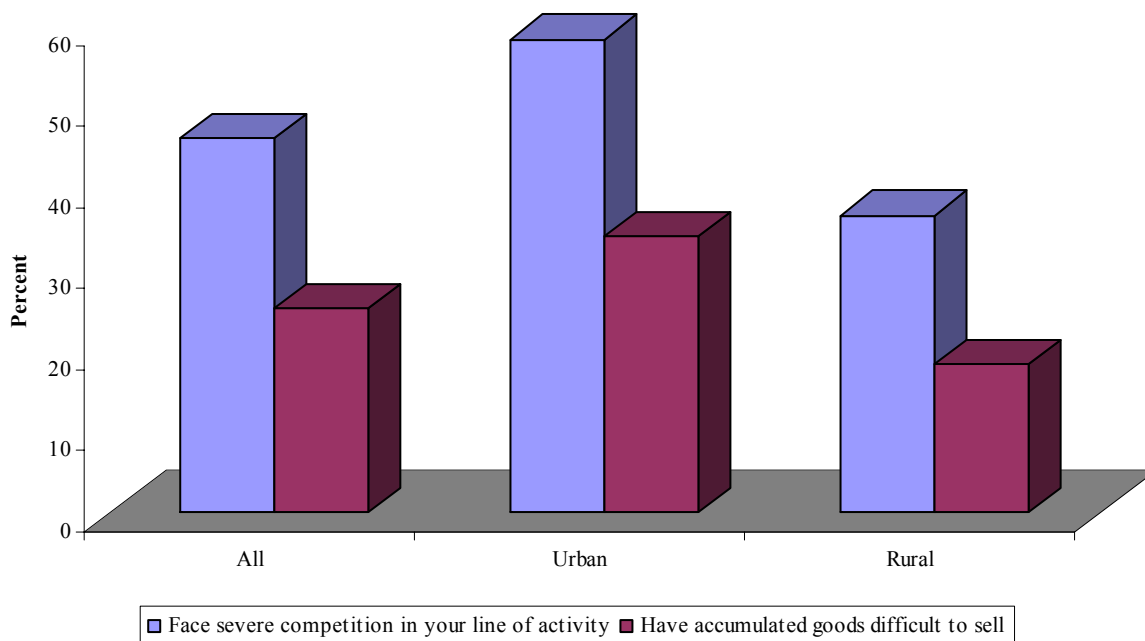


Table 7.3 looks at use of enterprise produced output. Around 32 percent of output produced is used for final consumption, leaving approximately 68 percent as intermediate inputs into agriculture, other manufacturing/industry or services. Enterprises facing severe competition sell a lower share as final consumption than enterprises with more limited competitive pressures.

Table 7.3: Use of Production

	All	Severe Competition	Competition Not Severe
Final consumption	32.1	26.0	37.5
Intermediate inputs in agriculture	1.2	0.8	1.5
Intermediate inputs in manufacturing	17.6	18.3	16.9
Intermediate inputs in services	48.8	54.6	43.9
Don't Know	0.3	0.3	0.2
Total observations	(2,739)	(1,269)	(1,470)

Note: Figures in percentages (observations in parenthesis)

Diversifying the customer base can make enterprises less vulnerable to demand shocks. Table 7.4 reports that over 59 percent of the enterprises sampled have over 20 customers. There seems to be a positive association between enterprises with a larger customer base and enterprises located in rural areas not feeling severe competitive pressures.

Table 7.4: Customer Base

	All	Severe Competition	Competition Not Severe	Urban	Rural
Exclusively one customer	1.2	1.1	1.3	1.4	1.0
2-5 customers	8.4	9.1	7.8	10.6	6.7
6-10 customers	13.4	13.6	13.1	17.1	10.4
11-20 customers	17.7	20.7	15.1	21.1	15.1
Over 20 customers	59.3	55.4	62.7	49.8	66.8

Note: All figures in percentages

Figure 7.3 provides an overview of the location of customers. There are huge differences in the location of customers between urban and rural enterprises. However, this difference is within province where 73 and 80 percent of customers are located, respectively. Around 38 percent of rural enterprise customers are located within the commune where the enterprise is located, as compared to only 8 percent for urban enterprises. Note also that only 10 percent of enterprise sales go to non-neighbouring provinces.

Turning to the general sales structure of the enterprises most important product (Table 7.5) the results from Table 7.3 are confirmed: Enterprises that feel strong competitive pressure mainly sell/produce products to other domestic non-state enterprises as intermediate inputs. Exporting enterprises which sell to individual consumers (final consumption) and exporting enterprises experience a relatively lower burden of competition. Similarly, urban enterprises sell a relatively larger share of their main product to other non-state enterprises as intermediary inputs as compared to their rural counterparts. Moreover, it is confirmed that exporting enterprises are primarily located in urban areas.

Figure 7.4 looks at the main criteria for setting prices. Around 65 percent of enterprises set prices as a fixed mark-up over production costs. One-fifth of enterprises conduct individual negotiations with

each customer and only around 10 percent take competitor prices into consideration when determining their own product price.

Figure 7.3: Location of Customers

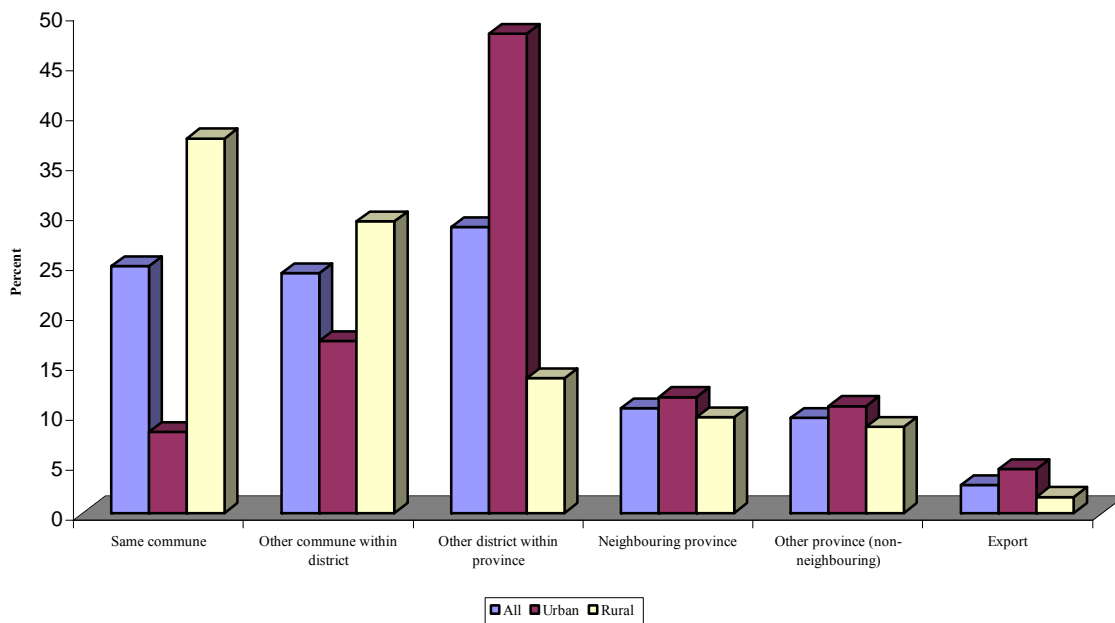


Table 7.5: Sales Structure

	All	Severe Competition	Competition Not Severe	Urban	Rural
Individual people (non-tourists)	31.3	24.9	37.2	21.0	39.6
Domestic, non-state enterprises	58.1	64.2	52.7	63.3	54.1
State enterprises	6.1	6.8	5.1	9.6	3.0
Non-commercial government authorities	0.5	0.6	0.4	0.4	0.5
Tourists	0.4	0.3	0.6	0.3	0.5
Export	2.8	2.3	3.2	4.4	1.6
Foreign invested companies	0.7	0.8	0.7	0.9	0.6
Other	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0

Figure 7.4: Main Criteria for Setting Prices

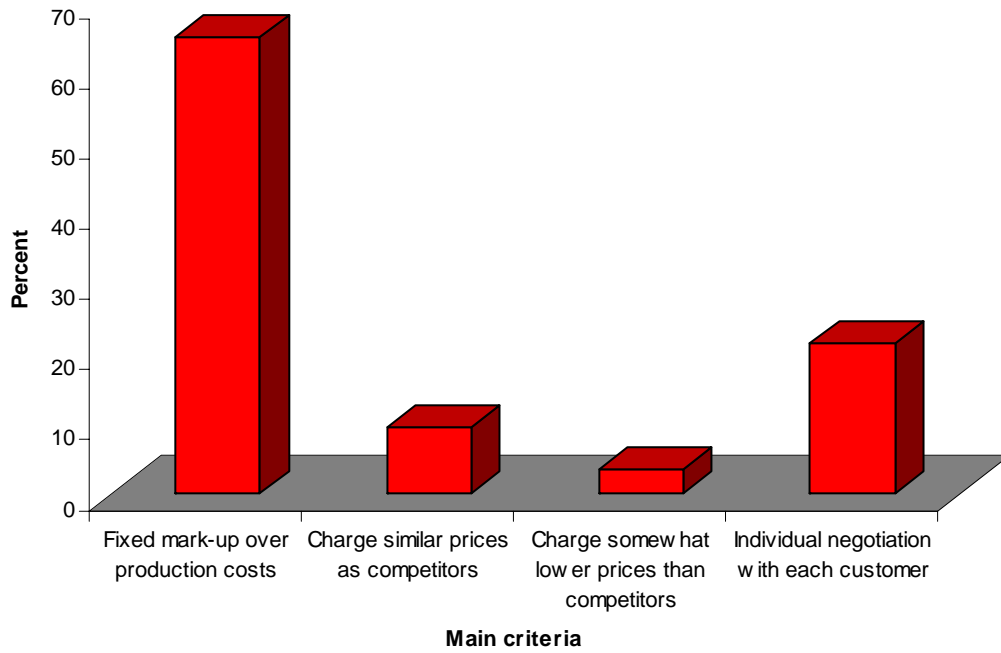
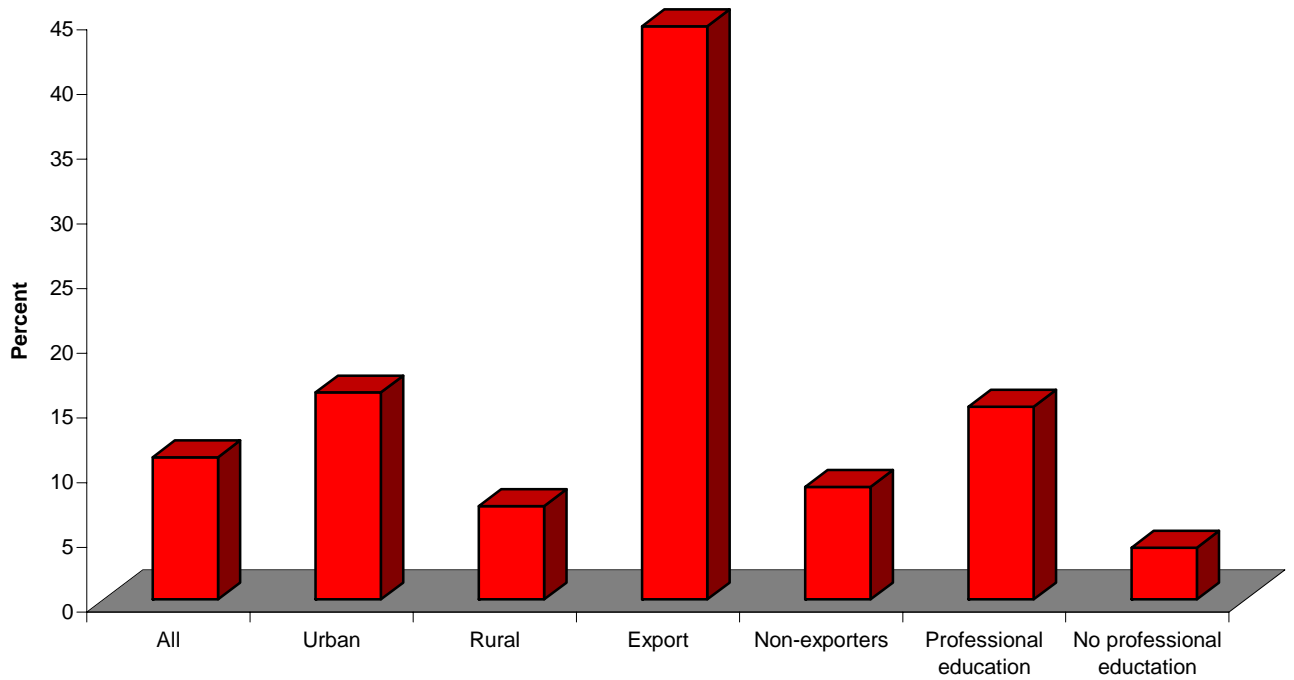


Figure 7.5: Advertisement



Finally we look at advertisement in Figure 2.5. Only 11 percent of enterprises advertise their products, but there are huge differences across sectors (not reported). A larger proportion of urban enterprises and enterprises with professionally (higher) educated owners advertise. Notably, nearly half of the exporting enterprises advertise, indicating that visibility is crucial for many exporting enterprises.

8 Investment and Access to Finance

In Section 3 we reported that enterprises consider credit constraints as the most serious obstacle for future enterprise growth. Table 8.1 reports results related to the perception, documenting enterprise owner perceptions of the most severe constraint to starting up new projects. The number one concern and constraint in both rural and urban areas is lack of capital. This is very well understood by policymakers in Vietnam and the removal of credit constraints is one of the central elements of future private sector policies. Lack of demand and difficulties in finding new and suitable premises are significant concerns for enterprises thinking about expanding the business. However, around 21 percent of enterprises (26% for urban and 18% in rural areas) do not face problems when starting new projects.

Table 8.1: Most Severe Constraint When Starting Up New Projects

	All	Urban	Rural
Lack of capital	29.8	23.0	35.1
Lack of raw materials	1.6	0.7	2.4
Lack of market outlet	20.4	18.3	22.0
Lack of technical know-how	1.4	1.2	1.6
Lack of suitable machinery	4.4	5.6	3.4
Difficulty in finding premises	13.9	17.1	11.4
Complicated government regulations	1.3	1.9	0.8
Lack of skilled workers	4.9	5.9	4.2
Negative attitude of local officials	0.4	0.3	0.5
Other	0.3	0.4	0.2
No problem	21.6	25.6	18.4
Total	100.0	100.0	100.0

8.1 Investments and Debt

Investment and credit constraints are closely linked and we begin by establishing an overview of the enterprises' investments since the last survey in 2002. Table 8.2 documents that 62 percent of enterprises made new investments during the past three years. The probability of investing increases with enterprise size and urban enterprises invest less frequently than rural enterprises, a result driven by low investment rates in HCMC. In a recent paper Rand (2006) documents that retained earnings were a major source of financing in 2002. This is still the case in 2005. Some 67 percent of new investments are financed using internal funds. This figure decreases with enterprise size, although large enterprises still use 48 percent of their own capital in investment financing. There is

a slight indication of urban enterprises using less external funds than rural when financing investments. This result corresponds well to recent findings in Rand (2006) and is explained by the limited uncertainty about land-use-rights in rural areas. Many rural households possess the necessary LURC, which can be used as collateral. The situation in urban areas is more complex, and the possibilities to use land right certificates as collateral are more limited.

Table 8.2: New Investment

	Percent of enterprises that has made investments since 2002	Percent financed by own capital/retained earnings	Main purpose of investment						
			Add to capacity	Replace old equipment	Improve productivity	Improve quality	Produce a new output	Safety and environmental requirements	Other purpose
All	62.2	66.9	61.6	17.6	11.1	2.8	3.6	1.8	1.5
Micro	55.5	67.3	58.7	19.8	12.7	2.1	2.6	2.0	2.1
Small	72.4	69.3	63.8	16.1	9.4	4.3	4.0	1.5	0.9
Medium	76.7	57.1	70.2	10.6	8.7	1.9	6.2	1.2	1.2
Large	81.3	48.2	69.2	0.0	7.7	0.0	23.1	0.0	0.0
Urban	56.5	71.2	61.8	15.8	10.4	5.0	4.7	2.1	0.2
Rural	66.6	64.0	61.4	18.7	11.7	1.3	2.8	1.6	2.5

Note: All numbers in percentages.

Looking at purposes of investments, around 60 percent of enterprises (independent of enterprise size and location) reported that investments were made to add to existing capacity. The second most important category of investments, however, differs markedly between small and large enterprises. Smaller enterprises have a larger tendency to replace old equipment than their larger counterparts. Larger enterprises are more innovative (introduce new products) than smaller enterprises, confirming the result from Section 6.

Table 8.3: Environmental Investments

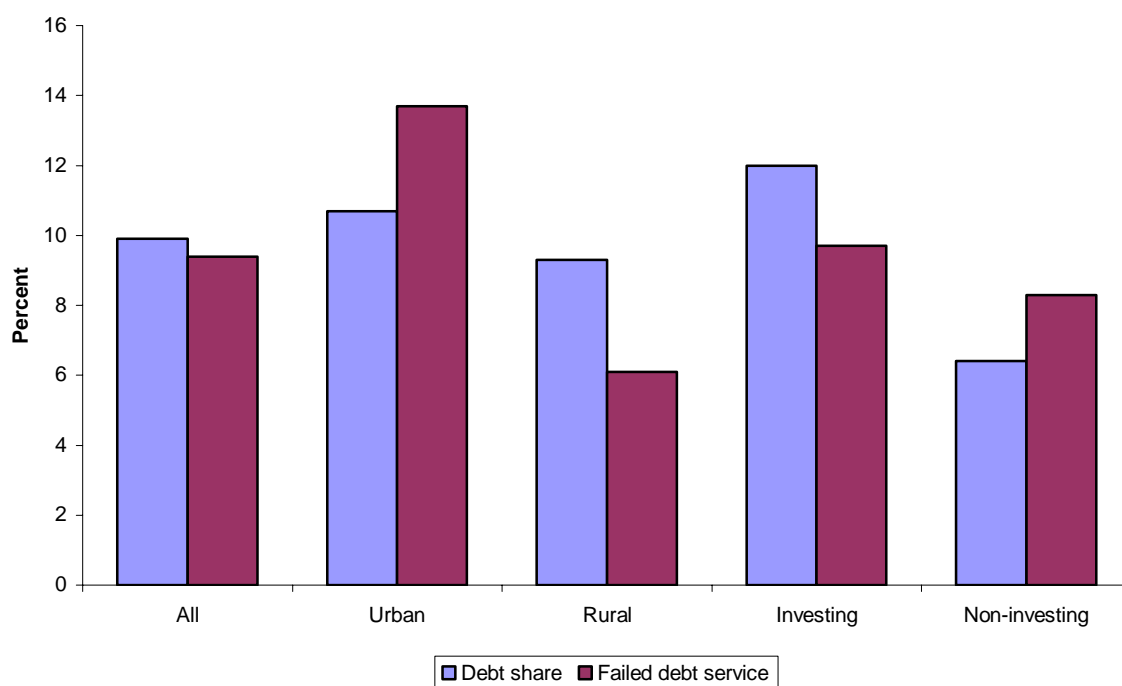
	Yes	No
Production causes environmental problems	572 (20.9)	2167 (79.1)
Made investments in environmental treatment	265 (46.3)	307 (53.7)
Required by law/regulations	243 (91.7)	22 (8.3)

Note: Number of observations (percent in parenthesis)

Relatively few enterprises report their main investment as being in safety and environmental requirements; even though 21 percent of enterprises report that their production causes environmental problems (see Table 8.3).

Some 46 percent of the enterprises acknowledging that their production is environmental damaging made investments in order to help cope with the problems, most of them due to the fact that it was required by government requirements and law. The enterprises not investing in technology that reduce environmental burdens of production report that their main reasons for not doing so as that they not required by regulation (49 percent) or that they could not afford to implement the investment needed (43 percent) despite of regulation requiring them to do so.

Figure 8.1: Debt and Debt Service



The level of enterprise debt influences liquidity and may restrict access to finance. Figure 8.1 shows the total debt in the average enterprise and whether the enterprise ever failed to service its debt. The debt share in Vietnamese enterprises is very low (around 10 percent of total assets) confirming the results in Rand (2006). Some 41 percent of enterprises have no debt (not reported) and investing enterprises have a slightly higher debt-to-assets ratio than non-investing enterprises. Around nine

percent of the enterprises having debt failed to service their obligations at least one time, with a higher percentage of urban enterprises failing debt service.

8.2 Access to Credit

This sub-section will focus on both formal and informal credit. Informal credit plays a huge role in the Vietnamese credit market for SMEs, as documented in Rand (2006). It can, for example, help fast growing enterprises “seize the day” by providing credit in difficult situations where enterprises do not have the time to go through troublesome administrative procedures. The number of enterprises applying and obtaining bank loans or other forms of formal credit since 2002 is shown in Table 8.4. Only 39 percent of enterprises have applied for a bank loan in the past three years. Out of these 1,069 enterprises, 19 percent experienced problems with their loan application and were denied credit. These enterprises can thus be classified as credit constrained, and amounts to approximately 7.3 percent of the sample. This does not mean, however, that they did not obtain any formal loans. Actually this group of applicants received an average of 1.7 formal loans during the period 2002 to 2005. For comparison the non-constrained group (applied for loan and did not experience severe problems in obtaining loans) received 2.2 loans on average during the same period. It is also worth noting that even though enterprises obtained some amount of credit, they still consider themselves in need of a loan. Some 82 percent in the credit constrained group still (not surprisingly) report needing a loan, but notably 60 percent in the “non-constrained” group still have need for a loan. Considering these enterprises as credit constrained as well, expands this group to 26.5 percent of the total sample.

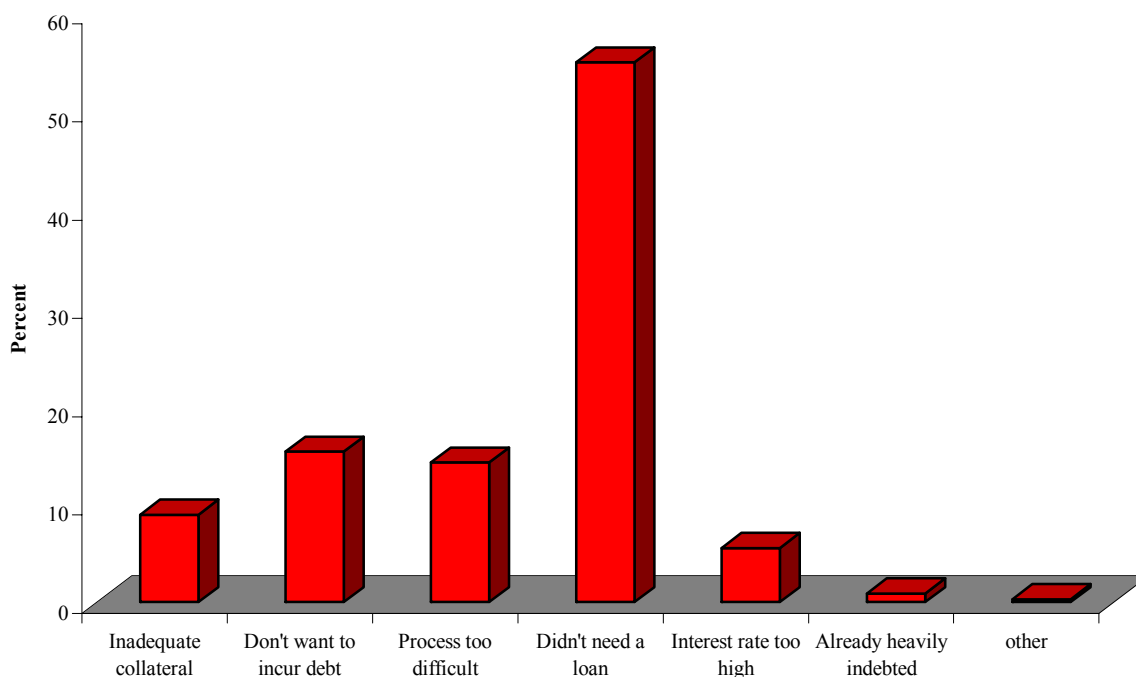
Table 8.4: Access to Credit

	Yes	No
Enterprise applied for formal loan	(1069) 39.0	(1670) 61.0
Problems getting loans	Yes (201) 18.8	No (868) 78.2
Number of loan applications accepted since 2002	1.7	2.2
Number of loan applications denied since 2002	0.8	..
Are you still in need of a loan	82.1	60.4

Note: All numbers in percentages (observations in parenthesis)

Some of the enterprises in the non-applicant group (1,670 observations) may also be credit constrained. Figure 8.2 lists the reason given by the enterprise for why they did not apply for a loan in the past three years. Around 70 percent of enterprises do not want to incur debt or are not in need of a loan. The remaining 30 percent did not apply for a formal loan because they did not have adequate collateral, they find loan processes are too difficult or interest rates are too high. Adding these 30 percent of the non-applicants to the group of credit constrained enterprises means that 1,224 enterprises (44.7 percent) can be considered as having limited access to credit. This number is somewhat higher than numbers reported in Rand (2006) because here we include some of the non-applicants in the credit constrained measure.

Figure 8.2: Why Don't Enterprises Apply for Loans?



Details of the most important formal loan (in value terms) are given in Table 8.5. The details cover 1,018 enterprises, corresponding to around 37 percent of the enterprises sampled. Of these, 69 percent have obtained their most important formal loan from a State Owned Commercial Bank (SOCB). SOCBs have a stronger market position in rural areas than in urban cities, where 30 percent of loans are allocated by private/joint stock banks. Loan amounts are significantly higher in urban areas (51,502 USD as compared to an average of US\$12,171 in rural areas), a result which to

is some extent related to enterprise size (larger enterprises located in urban areas). However, urban areas get larger loans even when controlling for enterprise size (not reported). Urban areas face somewhat lower interest rates. Rural enterprises pay on average 0.989 percent per month in interest as compared 0.897 percent per month in urban areas, corresponding to a factor of 10 percent.

Table 8.5: Details of the Most Important Formal Loan

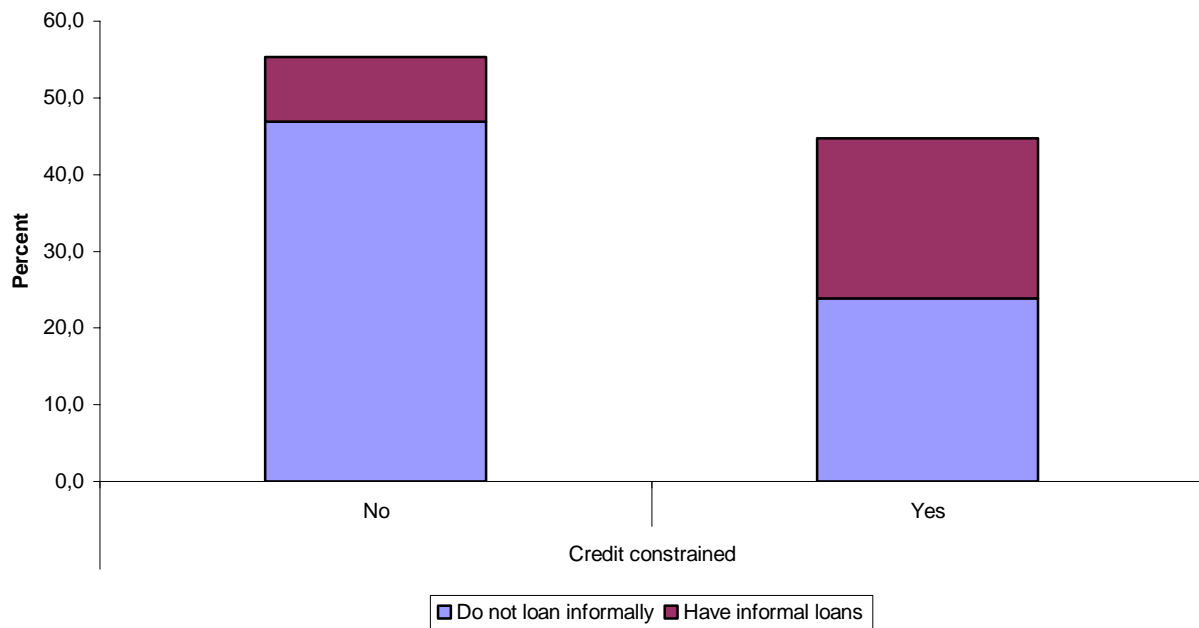
		All	Urban	Rural
Source (percent)	State owned commercial bank (SOCB)	69.0	55.0	76.1
	Private/joint stock bank	11.4	30.9	1.6
	Foreign bank	0.5	1.5	0.0
	Social policy bank	7.4	6.5	7.9
	Development assistance fund (DAF)	1.5	1.2	1.6
	Targeted programs	6.4	4.4	7.4
	Other enterprises	0.3	0.3	0.3
	Credit fund	3.5	0.2	5.1
Loan amount (USD)	Mean	25,110	51,502	12,171
	Median	5,625	18,750	1,875
Interest rate (percent per month)	Mean	0.958	0.897	0.989
	Median	1.000	0.930	1.030
Collateral (percent)	Yes	82.5	84.1	81.7
What type of collateral? (percent)	LURC	51.1	29.8	62.2
	Housing	35.7	46.3	30.2
	Capital equipment	6.6	12.6	3.5
	Personal belongings	6.5	11.3	4.0
	Other	0.1	0.0	0.2

Note: Two-thirds of the loans described are given to rural enterprises. In 17 percent of the cases the loan is backed by a guarantor, which most often in a family member of the enterprise owner.

Around 82 percent put up collateral for the most important formal loan. In rural areas 62 percent use LURCs as collateral as compared to only 30 percent in urban areas. This confirms the argument above that many rural enterprises possess the necessary LURC, which can be used as collateral. The situation in urban areas is more complex, and the possibilities to use land right certificates as collateral are more limited.

Enterprises that are credit constrained have the option of going to the informal credit market, which is fairly well developed in Vietnam. Figure 8.3 confirms that around half of the credit constrained enterprises have informal loans as compared to only 15 percent of non-constrained enterprises. Looking at the details of the most important informal loan in Table 8.6 (in terms of value), most informal loans are provided by a relative of the owner. Interestingly, over 10 percent of informal loan come from other enterprises.

Figure 8.3: Informal Loans and Credit Constraints



Informal loan amounts are on average much lower than formal loans, and again larger informal loans are given in urban areas. Interest rates are on average lower than for formal loans, driven by the fact that enterprises do not pay interest on over half the informal loans (median zero). This is caused by the fact that these loans are often obtained from friends and relatives. Informal loans are also characterized by not requiring collateral.

Table 8.6: Details on Informal Loans

		All	Urban	Rural
Observations		(800)	(422)	(378)
Source (percent)	Private moneylender	22.7	15.6	30.7
	Relative to owner	42.0	43.8	40.0
	Other individuals	22.2	29.2	14.5
	Enterprise	11.8	9.3	14.5
	Other	1.3	2.1	0.3
Loan amount (USD)	Mean	9,130	13,032	4,843
	Median	1,875	3,125	1,250
Interest rate (percent per month)	Mean	0.657	0.520	0.813
	Median	0.000	0.000	0.000
Collateral (percent)	Yes	2.3	1.4	4.2

Finally, we look at the determinants of obtaining informal loans. Besides the usual suspects included throughout this report we use our indicator variable for being credit constrained and a growth indicator (in this case we use employment growth) as potential determinants of using informal credit. First of all, fast growing enterprises use informal credit more frequently, confirming the result in Rand (2006) that informal credit plays a crucial role for successful enterprises in expanding and trying to “seize the day” of present market opportunities. As expected, enterprises constrained in the formal credit market more often seek to informal credit sources and new entrants are also more likely to obtain informal loans than incumbents. All the negative coefficients in the location category suggest that enterprises in HCMC rely more frequently on informal loans than in the other provinces considered.

Table 8.7: Who Uses Informal Loans?

		Coefficient	t-stats
Growth	Employment growth	0.166***	(2.88)
Credit access	Credit constrained	0.293***	(10.76)
Age	New entrant	0.057**	(2.26)
Size	Small	0.013	(0.41)
	Medium	-0.031	(0.50)
	Large	-0.184**	(2.43)
Location	Ha Noi	-0.118**	(2.06)
	Phu Tho	-0.161***	(2.82)
	Ha Tay	-0.062	(1.04)
	Hai Phong	-0.043	(0.65)
	Nghe An	-0.160**	(2.47)
	Quang Nam	-0.091	(1.28)
	Khanh Hoa	-0.148***	(3.04)
	Lam Dong	-0.161***	(3.39)
Ownership	Long An	-0.169**	(2.42)
	Private/sole proprietorship	-0.038	(1.25)
	Partnership/Collective/Cooperative	-0.058	(1.06)
	Limited liability company	0.050	(0.93)
	Joint stock company	0.042	(0.56)
Sector dummies included			Yes
Observation			2,615
Pseudo R-squared			0.15

Note: Probit, marginal effects at the mean of all variables. Weighted estimates and cluster robust standard errors. *, **, *** indicates significance at a 10%, 5% and 1% level, respectively. Base: Micro enterprise, HCMC, Household enterprise, Food processing (ISIC 15).

9 Conclusion

This report documents the findings from an enterprise survey conducted in 2005 in Vietnam. Given the structure of the survey instrument, much of the data collected is directly comparable to a similar survey carried out in 2002 (available on www.econ.ku.dk/rand), thus providing a unique and rich dataset on Vietnamese manufacturing enterprises. This permits (i) an up-to-date analysis of recent developments in the business environment from the point of view of the enterprise sector, (ii) comparisons with previous results, and (iii) the establishment of basic associations between enterprise characteristics and enterprise growth and survival rates.

A series of interesting statistics and policy-relevant recommendations emerge from these data by itself. They are presented below:

1. Around 9 percent of incumbent manufacturing enterprises exit the market each year, a level comparable to average exit rates reported for a number of developing countries. A larger proportion of new entrants are formally registered. This indicates that the registration and formalization process is helped by enterprise dynamics inherent in the Vietnamese manufacturing sector.
2. New entrants grow faster. However, the traditional inverse relationship between growth and enterprise size is not well-determined. Nghe An stands out in terms of growth of real revenue per employee. Similarly, “low performing” provinces in terms of growth are Phu Tho, Hai Phong and Lam Dong. Non-household enterprises experience higher growth rates, so we took a closer look at the effects of legalising and formalizing enterprise operations.
3. Registered enterprises experience higher growth rates than non registered enterprises. However, among the registered enterprises around 25 percent do not have a formal tax code. These enterprises experience lower average growth rates as compared to registered enterprises having a formal tax code. This puts emphasis on the importance of how the business registration system is organized and controlled for enterprise level performance.
4. Enterprises generally pay very few taxes and the economic tax burden is fairly low. Vietnam faces a serious situation of tax evasion among private enterprises. Given the low ability of tax authorities to collect a sustainable amount from private manufacturing enterprises, attention should be given in the future to building a tax system which is transparent and easily enforced, especially for commune and district level authorities.

5. Some 41 percent of enterprises pay bribes. This is done in order to get easier access to public services and to deal with taxes and tax collectors. Being a new entrant and paying bribes are positively associated. Corruption is clearly an entry barrier. Enterprises with close bank connections have higher bribe incidence and there is a clear and positive connection between bribe payments and receiving assistance from government officials. This confirms that increasing transparency and reducing interactions between citizens/enterprises and government officials may help combating the present bribe system. This could, for example, be done by expanding the level of e-government (See Andersen and Rand (2006) for details).
6. The very flexible labour market conditions are often mentioned as one of the strong characteristics of the business environment in Vietnam. Some 90 percent of enterprise owners have at least lower secondary education. Impressive is the fact that 20 percent have a college or university degree, a figure which is even higher for the new entrant category. Regulations relating to the hiring and firing of workers which impact on enterprise performance by introducing inefficiencies into the labour market is minor in Vietnam, illustrated by the low ratio of temporary to permanent workers. It is of great importance that this flexibility is not negatively influenced by recent and future developments in the Labour Law if Vietnamese manufacturers should keep their comparative advantage in terms of combined labour flexibility and high educational level.
7. Most new workers hired are recommended by friends, relatives and close personal contacts to the owner, even among larger enterprises. This might explain why some enterprises (large enterprises) experience difficulties in recruiting workers with appropriate skills and it highlights the need among larger enterprises to engage in more sophisticated recruitment processes.
8. Social awareness of enterprises is becoming more and more central, and women's higher social commitment is confirmed when comparing gender of enterprise owner and the benefits offered to and received by workers. Female owned enterprises provide social insurance and other worker benefits to a larger extent than male owned ones. This illustrates that promoting gender equality in terms of enterprise ownership has potentially large benefits for improving the social welfare for employees.

9. The coverage of local trade unions is fairly weak in Vietnamese manufacturing. Moreover, the structure of the local trade union is far from what is intended for such an institution. Only half of the local trade unions have a senior worker as chairman. This illustrates the need for improving the conditions for local level trade unions, both in terms of the number of enterprises committing themselves to their establishment and respecting such and in terms of respecting the organizational structure of local trade unions.
10. Larger enterprises diversify, are more innovative and have a higher probability of adopting new technology. However, enterprises in HCMC are more specialized enterprises. One explanation for this phenomenon could be that competition is fiercer in HCMC than in any other province considered, which forces enterprises to specialize. This however makes enterprises in HCMC more vulnerable to shocks in specific sectors.
11. The average technical efficiency in Vietnamese manufacturing is around 0.68, which suggests that Vietnamese manufacturers are as efficient as manufacturing enterprises in other Asian developing countries. Incumbent enterprises are more efficient than new entrants, and the same goes for urban enterprises compared with rural enterprises. Moreover, location plays a crucial role for determining technical efficiency, with enterprises in the northern part of Vietnam being less efficient than in the southern provinces.
12. Technical efficiency is positively associated with the probability of exporting. One reason for this association could be that exporting enterprises are provided with technology and expertise which make them more efficient. Moreover, professionally educated owners have a higher probability of entering the export market.
13. Retained earnings are a major source of investment financing, and urban enterprises use less external funds than rural enterprises when financing investments. This result might be explained by the limited uncertainty about land-use-rights (LURC) in rural areas. Many households possess the necessary LURC, which can be used as collateral. The situation in urban areas is more complex, and the possibilities to use land right certificates as collateral are more limited.
14. Between 27 and 45 percent of enterprises can be considered as having limited access to credit, depending on which credit constraint definition is used. Among the enterprises using external funds, some 69 percent receive loans from SOCBs, which have a stronger market position in rural areas than in urban cities. Around 82 percent have to provide collateral, and

in rural areas 62 percent use LURCs as collateral as compared to only 30 percent in urban areas. This illustrates that establishing well defined property rights has clear benefits for limiting the credit constraints facing the enterprises.

15. Fast growing enterprises use informal credit more frequently, confirms that informal credit plays a crucial role for successful enterprises in expanding and trying to “seize the day” of present market opportunities. As expected, enterprises constrained in the formal credit market more often seek to informal credit sources and new entrants are also more likely to obtain informal loans than incumbents. Enterprises in HCMC rely more frequently on informal loans than in the other provinces considered.

These conclusions are only a small part of what can be learned from the enterprise surveys carried out in Vietnam. We have chosen to highlight a few that appear interesting and relevant for policy-makers. Clearly many would benefit from further, deeper analysis in order to improve understanding of the enterprise sector in Vietnam.

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Appendix A: ISIC Sector Classifications

ISIC 2-digit	Description
15	Food products and beverages
17	Textiles
18	Wearing apparel etc.
19	Tanning and dressing leather
20	Wood and wood products
21	Paper and paper products
22	Publishing, printing etc.
23	Refined petroleum etc.
24	Chemical products etc.
25	Rubber and plastic products
26	Non-metallic mineral products
27	Basic metals
28	Fabricated metal products
29	Machinery and equipment nec.
30	Office machinery etc.
31	Electrical machinery etc.
32	Radio, TV etc.
33	Medical equipment etc.
34	Vehicles etc.
35	Transport equipment
36	Furniture
37	Recycling

Note: No enterprise produced ISIC 16 "Tobacco Products" and is therefore excluded.

Appendix B: District Codes and Names

Province	District number	District name	Province	District number	District name
HÀ NỘI	1	Quận Ba Đình		427	Huyện Đô Lương
	2	Quận Hoàn Kiếm		430	Huyện Nam Đàn
	3	Quận Tây Hồ	ĐÀ NẴNG	497	Huyện Hoà Vang
	4	Quận Long Biên	QUẢNG NAM	502	Thị xã Tam Kỳ
	5	Quận Cầu Giấy		506	Huyện Đại Lộc
	6	Quận Đống Đa		507	Huyện Điện Bàn
	7	Quận Hai Bà Trưng		508	Huyện Duy Xuyên
	8	Quận Hoàng Mai		517	Huyện Núi Thành
	9	Quận Thanh Xuân	KHÁNH HOÀ	568	Thành phố Nha Trang
	18	Huyện Gia Lâm		571	Huyện Vạn Ninh
19	Huyện Từ Liêm		574	Huyện Diên Khánh	
20	Huyện Thanh Trì	LÂM ĐỒNG	672	Thành phố Đà Lạt	
PHÚ THỌ	227	Thành Phố Việt Trì		677	Huyện Đơn Dương
	228	Thị xã Phú Thọ		678	Huyện Đức Trọng
	232	Huyện Thanh Ba	HỒ CHÍ MINH CITY	763	Quận 9
	233	Huyện Phù Ninh		765	Quận Bình Thạnh
	237	Huyện Lâm Thao		766	Quận Tân Bình
HÀ TÂY	268	Thị xã Hà Đông		767	Quận Tân Phú
	274	Huyện Hoài Đức		768	Quận Phú Nhuận
	275	Huyện Quốc Oai		769	Quận 2
	279	Huyện Thường Tín		770	Quận 3
	281	Huyện Ứng Hòa		771	Quận 10
HẢI PHÒNG	303	Quận Hồng Bàng		772	Quận 11
	304	Quận Ngô Quyền		774	Quận 5
	305	Quận Lê Chân		776	Quận 8
	306	Quận Hải An		777	Quận Bình Tân
	307	Quận Kiến An		784	Huyện Hóc Môn
	312	Huyện An Dương		785	Huyện Bình Chánh
NGHỆ AN	412	Thành phố Vinh	LONG AN	794	Thị xã Tân An
	417	Huyện Kỳ Sơn		802	Huyện Đức Hòa
	418	Huyện Tương Dương		803	Huyện Bến Lức
	419	Huyện Nghĩa Đàn		804	Huyện Thủ Thừa
	423	Huyện Tân Kỳ			