

***Development of Small and Medium Enterprises in a Developing Country: The Indonesian Case
By Tulus Tahi Hamonangan Tambunan***

Abstract: The main aim of this paper is to examine: (1) role of SMEs in Indonesia; (2) their constraints; (3) women entrepreneurs in SMEs; (4) their innovation capability. The paper shows: (1) SMEs have been the main player in domestic economic activities as they account for more than 90% of all firms; (2) their main constraints are lack of finance and marketing difficulties; (3) the representation of women entrepreneurs is still relatively low which can be attributed to such as low level of education and cultural/religious constraints; (4), their innovation capability is low due to e.g. lack of skill and capital.

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Introduction

It is widely stated in the literature that the importance of small and medium enterprises (SMEs) in developing countries is because of their unique characteristics, which include the followings (Tambunan 2006): (1) their number is huge, and they are scattered widely throughout the rural areas and therefore they may have a special "local" significance for the rural economy; (2) they are labor intensive; (3) SMEs in developing countries are mainly agriculturally based activities; (4) these enterprises, especially SEs, finance their operations overwhelmingly by personal savings of the owners, supplemented by gifts or loans from relatives or from local informal moneylenders, traders, input suppliers, and payments in advance from consumers; and (5) SMEs provide an avenue for the development of entrepreneurship. With respect to this latter, that is why the development or growth of SMEs is often seen as an indicator of entrepreneurship development.

This paper aims to answer the following research questions: (1) how important is SMEs in Indonesia; (2) what are their main constraints; (3) how is the involvement of women entrepreneurs in SMEs and what are their main obstacles; and (4) can SME do innovations?

Methodologically, this study is based on a key literature survey and analysis of primarily data from the Central Bureau of Statistics (BPS). Therefore only definition of BPS is used in this study: small enterprises (SEs), including microenterprises (MIEs), and medium enterprises (MEs) are business units with, respectively, 1-19, and 20-99 workers, and large enterprises (LEs) are units with 100 or more workers.

Role of SMEs

SMEs are of overwhelming importance in Indonesia. In 2006, there were about 49 million SMEs in Indonesia (Table 1). They accounted for more than 99,98 percent of total enterprises and 96,2 percent of total workforce, especially women and the young in Indonesia. The majority of SMEs, especially SEs, are scattered widely throughout the rural area and therefore they may play an

important role as a starting point for development of villagers' talents as entrepreneurs, especially women. SEs are dominated by self-employment enterprises without hired paid workers. Most of them are traditional enterprises, generally with low levels of productivity, poor quality products, and serving small, localized markets. There is little or no technological dynamism in this group. The majority of these enterprises eke out bare subsistence. Some of them are economically viable over the long-term, but a large portion is not (Tambunan, 2006).

Generally speaking, Table 1 may indicate that every year new entrepreneurs have been born in the country. Unfortunately, there are no data that can show whether the transformation process or size upgrading has happened within SMEs, with SEs becoming MEs, and MEs being transformed into LEs. This transformation process of firms by size may show a better picture of long-term entrepreneurship development.

Table 1

Indonesia is the biggest county in its total number of SMEs within countries of the Association of Southeast Asian Nations (ASEAN) (Table 2). No surprise, since Indonesia is the most populated country in the region. But also there are other reasons. First, private sector in Indonesia is much more developed than that in other socialist or less free market oriented countries like Vietnam, Cambodia, Lao PDR and Myanmar. Second, Indonesia still counters with poverty and within SMEs, most SEs (and in particular MIEs) are undertaken by poor households as their primary or secondary income source. So, at least in this Indonesian case, it can be argued that the growth of MEs is an indicator of entrepreneurship, but that of SEs, especially MIEs, is more likely a reflection of poverty distress, as poor people are “pushed” to undertake such activities.

Table 2

The distribution by sector, based on the latest data from the BPS, shows that the majority of SMEs are concentrated in the agriculture sector (Figure 1). They accounted for almost 54 percent

of total SMEs. The second largest sector in terms of total enterprises is trade, hotel and restaurant, with around 27 percent. The manufacturing industry is the third biggest sector with around 7 percent of total SMEs. In this latter sector, they are involved mainly in simple traditional manufacturing activities such as wood products, including furniture, textiles, garments, footwear, and food and beverages.

Figure 1

In terms of output, SMEs performed relatively well. SEs and MEs grew at, respectively, 3.96 and 4.59 percent in 2001 and higher at 5.38 and 5.44 percent in 2006. While, LEs experienced a growth rate of 3.04 and 5.60 percent, respectively, during the same period (Figure 2). SMEs also performed better than their larger counterparts in GDP contribution with more than 50 percent during that period. Even, limited data from other ASEAN countries show that within the region Indonesian SMEs performance in this ratio is not bad (Table 3). By sector, the largest GDP contribution of SEs is in agriculture, followed by trade, hotel and restaurant; whereas, MEs in finance and retail, and LEs in electricity, gas and water sector and in mining (Table 4).

Figure 2

Table 3

Table 4

SMEs' output contribution to the annual growth rate of GDP was also higher than that of LEs (Figure 3). On average, the GDP growth share of SMEs was above 2 percent; whereas that of LEs was under 2 percent. Within SMEs, SEs' GDP growth share was higher than that of MEs.

Figure 3

Main Constraints Facing SMEs

The development of viable and efficient SMEs is hampered by several constraints. Though the constraints may vary by region, sector, or even by enterprise within a sector, there are certain constraints that are common to all SMEs, i.e. lack of capital, difficulties in procuring raw materials, lack of access to relevant business information, difficulties in marketing and distribution, low technological capabilities, and policies and regulations that generate market distortions.

Recently, BPS conducted a survey on MIEs and SEs, and its findings are given in Table 5 showing that the main problems faced by the majority of the respondents are lack of capital and marketing difficulties. In Indonesia, although there are various government-sponsored SME credit schemes, the majority of SMEs, especially MIEs located in rural/backward areas, never received any credit from banks or other financial institutions. They depend on their own savings, money from relatives and credit from informal lenders for financing their daily business operations. Both financial markets and institutions in Indonesia are relatively underdeveloped. This condition constrains the supply of capital to SMEs, particularly the fast-growing firms. Insufficient competition in the SME financing sector means that the available financial institutions are not vigorously scanning the entire SME market and are not motivated to create innovative financial products that would adequately serve the SME market. Moreover, 'entrepreneurial finance', often involving the non-collateralised forms of lending, is inadequate which particularly constrains the supply of capital to fast-growing SMEs that could act as an important 'engine of growth' for the Indonesian economy (TAF, 2001).¹

¹ The success of Bank Rakyat Indonesia (BRI) in providing microfinance to MIEs is well-known. But, this scheme is not suitable for the SMEs as they are more complex economic organizations which require managerial skills which few MIE owners have. Hence, analysis of the risks associated with lending to SMEs is more complex and less readily suitable to the 'mass market' approaches adopted by the microfinance institutions. A higher percentage of the SMEs are growth-

Table 5

In marketing, SMEs in general do not have the resources to explore their own markets. Instead, they depend heavily on their trading partners for marketing of their products, either within the framework of local production networks and subcontracting relationships or orders from customers.

Others include cumbersome and onerous business regulations and restrictions which hamper business activities in Indonesia. Before the 1997/98 Asian financial crisis, among the most egregious restrictive regulations were policy-generated barriers to domestic competition and trade (inter-regional and inter-island) and proliferation of several state and private monopolies. The policy-generated barriers to domestic competition and trade included barriers to entry in certain economic activities, officially sanctioned cartels and monopolies, price controls, dominance of state-owned enterprises in certain sectors, and preferential treatment for favored enterprises. These barriers created rent-seeking opportunities which benefited well-connected businessmen, but hurt the business of the large majority of bona fide businessmen including the numerous SMEs. Most of the policy-generated barriers to domestic competition and trade were abolished after the crisis as part of the structural reforms mandated by the government's agreements with the IMF.

Based on limited sources of information on the main constraints facing SMEs in other ASEAN countries, Table 6 shows that, although they vary by country, lack of capital due to lack of access to formal credit to financing working capitals and investment is one among them

Table 6

Women Entrepreneurs

Recently, there has been an increasing interest in women entrepreneurship development among policy makers, academics and practitioners in Indonesia. This interest comes from the recognition that the creation of women entrepreneurship, especially in rural areas, will contribute to the

oriented firms with the possibility of becoming nationally or even internationally competitive. Since SME finance is considered to be a separate business line by financial institutions, the Indonesian government has to recognize that the approaches to microfinance, such as 'group lending', are not suitable for SMEs (TAF, 2001).

creation of many new rural enterprises that will increase local capabilities to bring rural economic growth. It is generally believed that women entrepreneurs can play an important role in promoting growth and development, and hence reducing poverty. In this respect, SMEs provide a good starting point for the mobilization of women talent, especially in rural areas, as entrepreneurs. At the same time, SMEs can provide an avenue for the testing and development of women entrepreneurial ability.

BPS data from various years indicate that women entrepreneurs in Indonesia have also been increasing since the 1980s when the country achieved rapid economic growth leading to rapid increase in per capita income. According to a number of studies (e.g. Manning, 1998; Oey, 1998), the reason for the increasing number of women-owned enterprises are partly due to the increase of women's educational level, and to the economic pressure the women faced in their households. Recent BPS data on SMEs in manufacturing industry show two interesting facts (Table 7). First, it reveals that only about 29 percent of manufacturing SMEs are run by women. Second, the rate of women entrepreneurs tends to decline by size: in SEs the rate is higher than that in MEs. If total number of enterprises by gender of entrepreneurs or owners can be used as an indicator of current state of the art of women entrepreneurship development, then the table suggests that becoming an entrepreneur, especially in larger, modern and more complex businesses in Indonesia is still dominantly a man culture.²

Table 7

The relatively low representation of women entrepreneurs in Indonesia can be attributed to at least four main factors. First, low level of education and lack of training opportunities that make Indonesian women severely disadvantaged in both the economy and society may play an important role. It is especially true for women living in rural areas or in relatively backward provinces. This can be seen obviously from BPS data on women entrepreneurs in SEs in the manufacturing

² Unfortunately, since no data are available on the proportion of women-led MEs and LEs in Indonesia, there is no indication on whether the percentage of women owners relative to men decreases or increases as firm size increases. Also, no data exist on the number of women starting enterprises each year, or on their growth rates into the next firm-size category. But, it is probably safe to say that very few women-led SEs grow into MEs and then latter on to LEs.

industry according to province and university degree diploma. As shown in Table 8, the majority of women entrepreneurs in SMEs having university degree are found in Java and Sumatera, the western and more developed part of the country.

Table 8

Second, heavy household chores. Especially in rural areas, women have more children, and there are more demands on them to perform their traditional role of being responsible for housework and child care, and therefore they have fewer hours of free time than men, both during the weekend and on weekdays.

Third, there may be legal, traditions, customs, cultural or religious constraints on the extent to which women can open their own businesses. Especially in rural areas where the majority of population are muslim and rather isolated from big cities like Jakarta, Islamic-based norms have stronger influence on women daily life. This makes female behavior or attitude in rural areas less open than male (or than urban women) to a “doing modern business” culture. In such a society, women must fully comply with their primary duty as their husband’s partner and housewife, they are not allowed to start their own businesses or to do jobs that involve contact with or managing men, or simply they are not allowed to leave the home alone. Even if women do have their own business, in many cases, they defer to husbands or other family members in key business decisions, and many turn over greater power to these other family members as the business grows. All these constraints lead to an exclusion of women from entrepreneurial activities. While, in rural areas relatively close to urban areas with good transportation and communication links, changes in local society attitudes about traditional role of women being responsible for housework and child care and men for income in the last 30 years are observable.

Fourth, lack of access to formal credit and financial institutions. This is indeed a key concern of women business owners in Indonesia. This is found to be more problematic for women in rural areas or outside of major metropolitan areas such as Jakarta and Surabaya. This constraint is related to ownership rights which deprives women of property ownership and, consequently, of the ability to offer the type of collateral normally required for access to bank loans. In Indonesia, men are still perceived as the head of the family, and thus, in general, men are still perceived as the owner or inheritor of family assets such as land, company and house.

Probably because of the above reasons, especially cultural or religious constraints, it is found that in Indonesia, particularly in rural areas, economic necessity or wanting to improve family income is a more predominant factor for entrepreneurship among women. Economic pressures have meant that women are being permitted to take up paid employment outside the home or to run income earning activities beyond their traditional role (Syahrir, 1986; Rusdillah, 1987). In contrast, in more developed economies such as the United States, or even in Korea, for instance, non-economic motives such as a desire for more fulfillment, or to test a winning idea, or as the first step towards independence, self—esteem and liberty of choices, are more important for women entering into business ownership (APEC, 1999).

Innovation Capability

No doubt that SMEs' capacity to compete with LEs and hence their survival in the long-run depends much on their ability to do sustainable improvements in their competitiveness (Long, 2006). In 2006, the APEC SME Innovation Center has conducted a study on SME global competitiveness in thirteen APEC member economies (APEC, 2006). The competitiveness is measured through the score index between 1.0 (the least competitive) and 10.0 (the most competitive) and it is developed based on a number of factors which includes types of technology

used, adopted methods of production, and types of products made. It reveals that Indonesia is recorded the least competitive SME with index below 4.0 (Figure 4).

Figure 4

It is often said that one effective way to maintain or improve competitiveness is by doing innovations continuously. But this is not easy, if not impossible, for majority of SMEs, especially SE, in developing countries to do innovations, since they lack two most crucial determinant factors, i.e. capital and skills. With respect to capital, it has been shown that the main constraint facing SMEs in Indonesia (as in ASEAN or developing countries in general) is lack of capital, and limited capital makes them impossible to do innovations in product or production process. With respect to skills, Table 9 shows that the majority of entrepreneurs/owners of SMEs have only primary education; although the rate of having university degree is higher in MEs than that in SEs. So, with this condition, it is hardly to expect that those entrepreneurs can do innovations.

Table 9

Unfortunately, no data are available on innovativeness in Indonesia SMEs, like the percentage of total SMEs having ISO certificates or their spending (as a percentage of total expenditure or production costs) on research and development (R&D). Ideally, the number of patent applications should be used as a measure of product or process innovations. But, since for this factor, hardly data exist, having ISO certificates can be used instead. It can be seen as a reflection of ability to do innovation. The second factor is often used as a measure of current innovation activities. As presented in Table 10, the Enterprise Survey 2007 from the International Finance Corporation (IFC) and the World Bank do provide information on these two indicators in many countries, including Indonesia. But, no distinction is made between SMEs and LEs. However, if the ratios in

this table also valid for SMEs in general, then it can be assumed that the SMEs' level of innovativeness, on average, in Malaysia or in Thailand is higher than that in Indonesia.

Table 10

However, there is increasing empirical evidence showing that SMEs can do innovations, especially those located in clusters which are in a better position to do innovations compared to their dispersed counterparts. For instance, evidence from Sandee's (1994, 2002) studies of roof tile clusters in rural areas in Central Java province. Through the 1980s the demand for roof tiles increasingly shifted toward urban areas, where customers pay more attention to quality. This meant that upgrading was important to retain or increase demand. Although, some clusters have stagnated, many others have grown through a process of technological change or adaptation that encompasses changes in processes of production, in patterns of inter-firm cooperation, in employment conditions, and in the marketing of new output. The range of experiences has been wide. The process was demand/buyer driven in some clusters and producer-driven in others. In the first case, the buyers were mainly traders or agents from urban building material shops, who largely took care of the financial, technical, and marketing sides of the adoption and competed with each other to do so, a reflection of the expanding urban demand for press tiles. For instance, in two cases (in Mayong Lor and Klepu villages), urban building material shops have played a key role not only in assuring demand but also provided loans for purchase of presses and renting out mixers. The pioneer adopters of the hand-press technology were young males who had used it elsewhere in rural Java. Since its introduction in the early 1970s, virtually all of the producers in his studied clusters have adopted the technology. Whereas, in the case of producer-driven clusters such as in Karanggeneng village, networks of producers were at the heart of the process of technology upgrading. Producers organized themselves to finance new equipment, shared indivisible capital, and gained access to new markets. Pioneer adopters remained the most

important actors by stimulating innovation adoption by those producers whom they could trust and control, especially relatives. Urban building material shops get involved through establishing relationships with the pioneer adopters. In both cases, innovation trickled down among an increasing number of producers. Diffusion was stimulated by the growing involvement of suppliers, while the government principally contributed by improving the environment.

Other more recent evidence is from Tambunan (2007a,b) who did research on development of SMEs in a metalworking industry cluster in Tegal (Central Java). Tegal is one of the few areas in Indonesia with a long history of a metalworking industry. Although metalworking involves a range of processes, the industry is dominated by the plate-forming processes. The comparative advantage in this cluster has been in meeting small orders for simple metal products or components, mainly for household appliances, handicrafts, furniture, but also orders from LEs (including some Japanese companies) for parts and components for the general machinery and automotive industries. The important finding is that many SMEs in the cluster, especially MEs but also some SEs are able to adopt new technologies and to do process or product innovations. The owners were previously employees for many years in LEs and with their technical experiences they opened up their own firms. This study also a good case in showing that technology/knowledge transfers from LEs to SMEs through subcontracting systems play an important role in generating or improving innovation capabilities in many SMEs.

Concluding Remarks

This study shows some interesting facts. First, SMEs are of overwhelming importance in Indonesia, as they accounted for more than 90% of all firms, and they continue to grow every year. This may be a positive sign of ongoing entrepreneurship development in the country. However, within SMEs, most SEs (and particularly MIEs) are undertaken by poor households as their primary or secondary income source, and poverty is still a serious domestic problem. Thus, the growth of SEs or MIEs in

Indonesia is more likely a reflection of poverty distress, as poor people are “pushed” to undertake such activities, rather than an indicator of entrepreneurship development.

Second, the main constraints faced by SMEs, especially MIEs or SEs, are financial limitation and marketing difficulties. Financial limitation, which due mainly to limited access to formal sources of credit, acts as their main constraint to improve their performance. This financial problem may also attribute to their marketing difficulties as most SEs and MIEs do not have the resources to explore their own markets.

Third, although there are some cases showing that small entrepreneurs are capable to do innovation, in general, however, they lack of two crucial inputs to do that, namely lack of capital as discussed above and skill. As shown before, the majority of entrepreneurs/owners of SMEs have only primary education. With this condition, it is hardly to expect that those entrepreneurs can do innovation.

Finally, with respect to women entrepreneurs, it reveals two important findings. First, becoming an entrepreneur, especially in larger, modern and more complex businesses in Indonesia, is still dominantly a man culture. Second, the rate of women entrepreneurs tends to decline by size. This development can be attributed to at least four main factors: low level of education and lack of training opportunities that make Indonesian women severely disadvantaged in competition with men; heavy household chores that give women little time or freedom to conduct activities outside the home; legal, traditions, customs, cultural or religious constraints on the extent to which women can open their own businesses; and lack of access to formal credit and financial institutions.

Table 1
Total Number of Enterprises by Size Category: 1997-2006 (000 units)

<u>Size Category</u>	<u>Year</u>								
	1997	1998	1999	2000	2001	2003	2004	2005	2006
SEs	39,704.7	36,761.7	37,804.5	39,705.2	39,883.1	43,372.9	44,684.4	47,006.9	48,822.9
MEs	60.5	51.9	51.8	78.8	80.97	87.4	93.04	95.9	106.7
LEs	2.1	1.8	1.8	5.7	5.9	6.5	6.7	6.8	7.2
Total	39,767.3	36,815.4	37,858.1	39,789.7	39,969.97	43,466.8	44,784.14	47,109.6	48,936.8

Source: BPS.

Table 2
Growth of Number of SMEs in Other ASEAN Countries

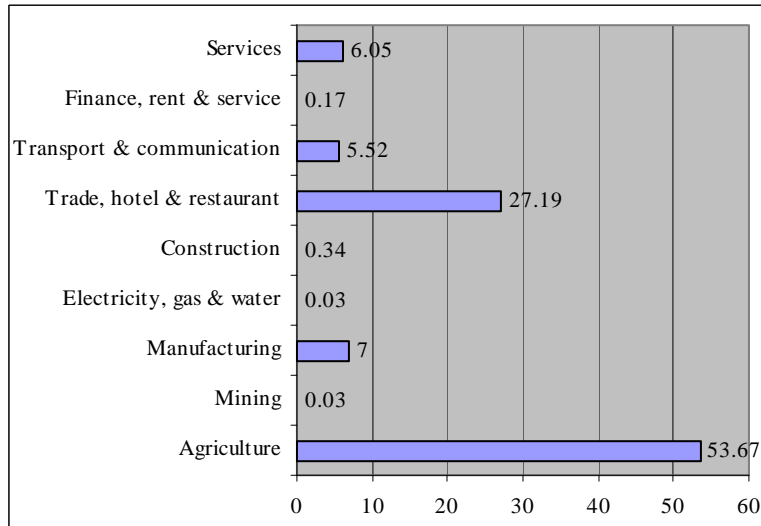
<u>Member Country</u>	<u>Number ('000)</u>	<u>Year</u>	<u>As a % of all Firms (ast year)</u>
Brunei Darussalam	30.000	2004	98
Cambodia*	0.369	mid 1950s	
	1.000	1958	
	24.097	1998	
	25.406	2000	
	25.985	2003	
	28.747	2005	99
Indonesia	37,765.2	1997	
	37,856.3	1999	
	43,465.9	2003	
	48,929.6	2006	99.9
Lao PDR	22.000	1998	
	25.993	2004	99.4
Malaysia	516.855	2003	
	518.996	2005	99.2
Myanmar	34.000	1998/99	96
Singapore	72.000	2002	97.8
Thailand	779.033	1997	
	1,639.427	2001	
	1,995.929	2003	
	2,274.525	2006	99.8
Philippines	68.000	2001	
	72.696	2003	99.5

Vietnam	59.831	2002	
	98.233	2005	96.8

Note: * in manufacturing industry only

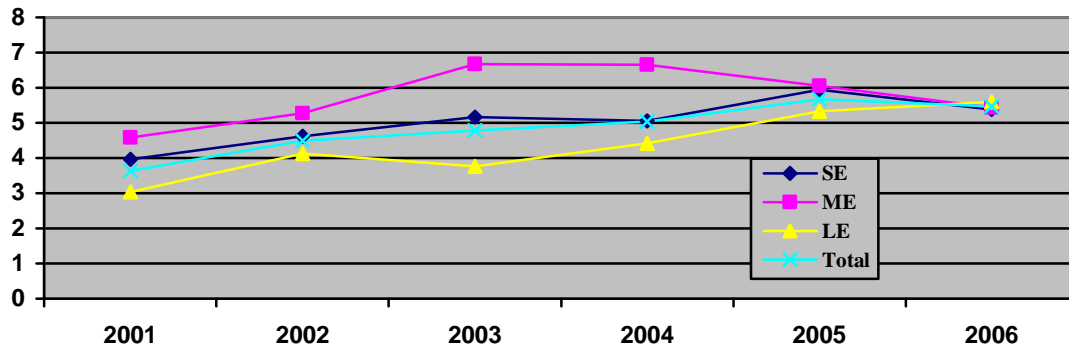
Sources: APEC (2003a,b,c,d), RAM Consultancy Services (2005), UNCTAD (2003), Hall (2002), Myint (2000), Regnier (2000), Ministry of Industry, Mines and Energy of the Kingdom of Cambodia, Indonesian BPS, SMIDEC, Dhungana (2003), Rasiah (2001), Jajri and Ismail (2007), OSMEP, National SME Development Agenda 2000/2001, Kyophilavong *et al.* (2007a,b), Sang (2007), Aldaba (2007), Cuong, et al (2007, 2008), Bailey (2007).

Figure 1
Distribution of SMEs by Sector, 2006 (%)



Source: BPS

Figure 2
Output Growth Rates of SEs, MEs and LEs, 2001-2006 (%)



Source: BPS.

Table 3
SMEs' Contribution to GDP in ASEAN (%)

<u>Country</u>	<u>Year</u>											
	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
2006												
Brunei Darussalam*		66.0										
Cambodia**			60.0	37.5	51.2	60.5	64.5	76.7				
Indonesia							54.7	54.8	57.0	56.8	55.4	53.5
53.3												
Malaysia	20.0	30.0	27.3						47.3		38.9	
Singapore								34.7				
Thailand							39.5	39.3	38.8	38.1	37.8	38.3
38.0												
Philippines		32.2										
Vietnam									39.0			

Note: * non-oil and gas GDP; ** SEs only

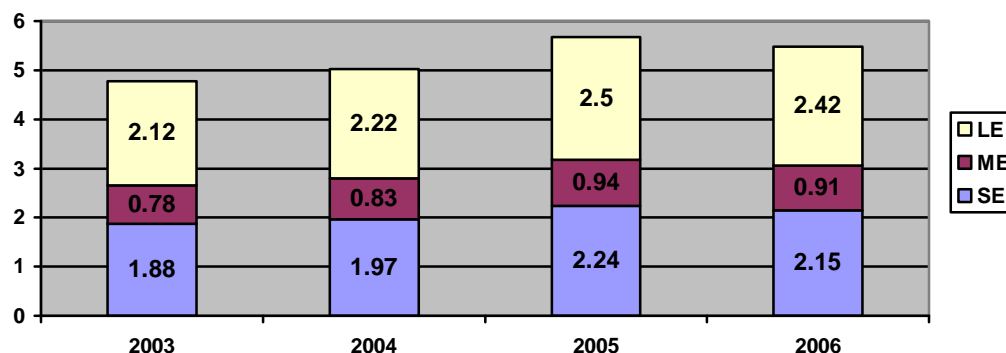
Sources: Meas (2004), APEC (2003a,b,c,d), RAM Consultancy Services (2005), UNCTAD (2003), Hall (2002), Myint (2000), Regnier (2000), Ministry of Industry, Mines and Energy of the Kingdom of Cambodia, Indonesian BPS, SMIDEC, Dhungana (2003), OSMEP (various years), National SME Development Agenda 2000/2001, Kyophilavong *et al.* (2007), Sang (2007), Cuong, et al (2007, 2008), Bailey (2007).

Table 4
Structure of GDP by Size and Sector, 2003-2006 (%)

<u>Sector</u>	<u>SEs</u>	<u>MEs</u>	<u>LEs</u>	<u>Total</u>
Agricultura	87,25	8,64	4,12	100,00
Mining	8,20	3,25	88,55	100,00
Manufacturing Industry	13,07	11,90	75,03	100,00
Electricity, Gas & Water	0,54	7,74	91,72	100,00
Construction	44,28	21,77	33,95	100,00
Trade, Hotel & Restaurant	75,47	20,79	3,75	100,00
Transportation & Communication	29,92	24,21	45,88	100,00
Finance & Retail	17,03	46,89	36,09	100,00
Services	39,70	7,93	52,38	100,00
GDP	38,80	15,96	45,25	100,00

Source: BPS

Figure 3
GDP growth contribution by size of firms, 2003-2006 (%)



Source: BPS

Table 5
Main Problems faced by SEs and MIEs in Manufacturing Industry

	<u>SEs</u>	<u>MIEs</u>	<u>Total SEs and MIEs</u>
Have no problem	46,485 (19.48)*	627,650 (25.21)	674,135 (24.71)
-Have problem	192,097 (80.52)	1,862,468 (74.79)	2,054,565 (75.29)
-Raw material	20,362 (10.60)	400,915 (21.53)	421,277 (20.50)
-Marketing	77,175 (40.18)	552,231 (29.65)	629,406 (30.63)
-Capital	71,001 (39.96)	643,628 (34.56)	714,629 (34.78)
-Transportation/Distribution	5,027 (2.62)	49,918 (2.68)	54,945 (2.67)
-Energy	40,605 (2.4)	50,815 (2.73)	55,420 (2.7)
-Labor cost	2,335 (1.22)	14,315 (0.77)	16,650 (0.81)
-Others	11,592 (6.04)	150,646 (8.09)	162,238 (7.90)
Total	238,582 (100.00)	2,490,118 (100.00)	2,728,700 (100.00)

Note: * = %

Source: BPS

Table 6
The Four Most Important Constraints Facing ASEAN SMEs

<u>Member Country</u>	<u>Constraints</u>									
	Raw Material	Marketing	Capital	Energy	Information	Technology & skill	Infra-structure	Tax	Inflation	Market environment*
Indonesia	x	x	x	x						
Philippines		x	x		x	x				
Vietnam			x			x	x			x
Cambodia			x	x		x				x
Lao PDR	x		x					x	x	
Thailand	x	x	x			x				
Malaysia	x	x	x			x				

Brunei	x	x	x	x
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Note: * including regulations, restrictions, legal framework, or discrimination policies in favor of LEs/MNCs

Sources: RAM Consultancy Services' (2005), Indonesian BPS, ADB (2002, 2005), Aldaba (2007), Cuong, et al. (2007, 2008), Rand and Tarp (2007), Long (2006), Bailey (2007), UNIDO (2004), Kyophilavong et. al (2007a,b), Wiboonchutikula (2001), Leopairote (1999), Kecharananta and Kecharananta (2007), BNM (2003), DOS (2005), Jajri and Ismail (2007), Anwar (2000) and Islam et al. (2001).

Table 7
SMEs in Manufacturing Industry by Gender, 2006 (%)

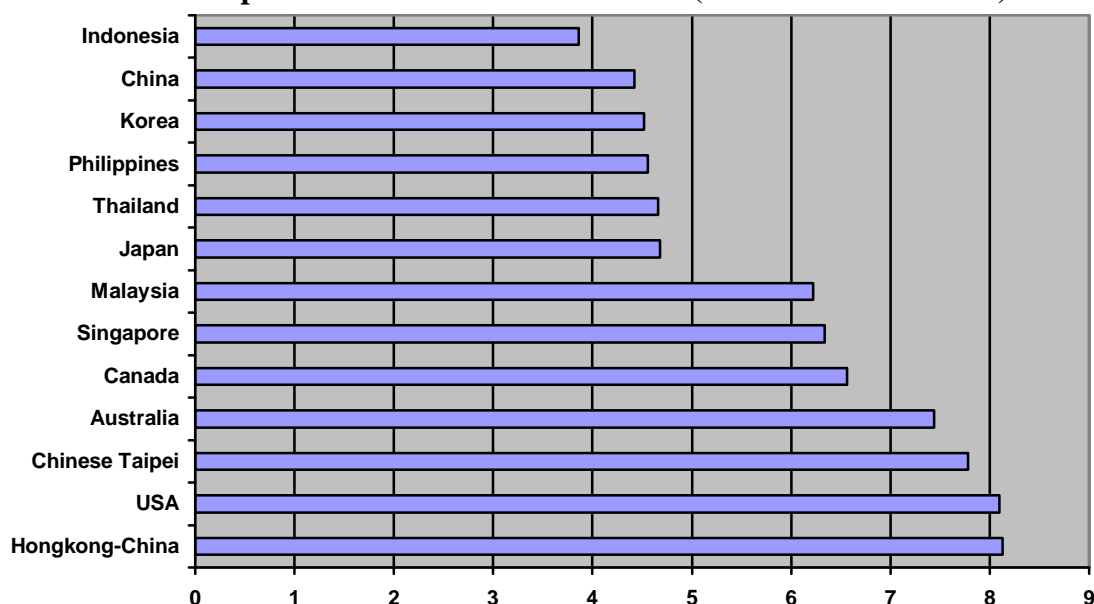
<u>Sex</u>	<u>Size</u>		
	SE	ME	SME
Male	77.33	83.75	71.01
Female	22.67	16.25	28.99
Total	100.00	100.00	100.00

Source: BPS.

Table 8:
Women Entrepreneurs in SMEs by University Degree and Region, 2004 (person)

<u>Region</u> <u>entrepreneurs</u>	<u>Women entrepreneurs with university degree</u>	<u>Total women</u>
Western and more developed regions		
-Sumatera	10,402	740,724
-Java and Bali	58,240	4,030,236
Eastern and less developed regions		
-Nusa Tenggara	909	276,300
-Kalimantan	4,196	266,756
-Sulawesi	2,365	233,686
-Maluku and Papua	88	42,936
Nasional	76,200	5,590,638

Figure 4
SME Competitiveness in APEC Economies (1.0 to 10.0 scale index)



Source: APEC (2006).

Table 9
Education of Entrepreneur in Manufacturing SMEs, 2006 (%)

<u>Level of education</u>	<u>Size</u>		
	SE	ME	SME
Not finished primary school	12.20	7.97	16.09
Finished primary school	28.87	21.29	31.30
Finished high school first degree (SMP)	23.04	19.58	22.10
Finished high school second degree (SMA)	30.42	37.54	26.87
Finished Diploma I/II/III	1.96	3.53	1.44
Higher education	3.51	10.09	2.20
Total	100.00	100.00	100.00

Source: BPS

Table 10
Innovation at enterprises level by Region

<u>Country</u>	<u>ISO certificate ownership (%)</u>	<u>Spending on R&D (% sales)</u>
East Asia & Pacific	23.69	2.01
Europe & Central Asia	12.98	0.46
Latin America & Caribbean	13.11	2.40
Middle East & North Africa	12.88	0.97
OECD	14.53	0.25
South Asia	19.76	0.58
Sub-Saharan Africa	11.68	1.71
Cambodia (2003)	2.78	5.21
Indonesia (2003)	22.13	-*
Lao PDR (2005)	3.27	-
Malaysia (2002)	31.43	1.38

Philippines (2003)	15.79	0.80
Thailand (2004)	44.63	0.25
Vietnam (2005)	37.84	2.21

Note: * = no data available

Source: International Finance Corporation (IFC) and the World Bank (Enterprise Surveys 2007, World Bank Group, Private Sector Resources)

References

- ADB (2002), 'Report and Recommendation of the President to the Boards of Directors on a Proposed Loan and Technical Assistance Grant to the Republic of Indonesia for the Small and Medium Enterprise Export Development Project', ADB RRP: INO 34331, November, Jakarta: Asian Development Bank.
- ADB (2005), 'Vie: Private Sector Assessment', Strategy and Program Assessment, November, Hanoi.
- Aldaba, Rafaelita M. (2007), 'SMEs in the Philippine Manufacturing Industry and Globalisation', paper presented at the third workshop, the ERIA Related Joint Research of SME Project, IDE-JETRO, 13-14 November, Bangkok.
- Anwar, Syed Aziz (2000), 'Small Enterprises in Brunei Darussalam: Ethnocentric or Regiocentric?', mimeo, Department of Management Studies, University of Brunei Darussalam, Bandar Seri Begawan.
- APEC (1999), 'Women Entrepreneurs in SMEs in the APEC Region', APEC Project (SME 02/98), Singapore.
- APEC (2003a), *Profile of SMEs and SME Issues in APEC 1990-2000*, APEC Small and Medium Enterprises Working Group, APEC Secretary, Singapore.
- APEC (2003b), 'From Income Generation to Patent Creation – Mapping out APEC Best Practices Guidelines For Industrial Clustering', December, Chung-Hua Institution for Economic Research and the APEC Secretariat, Singapore.
- APEC (2003c), 'Providing Financial Support for Micro-enterprise Development', information paper presented at the SMEs Ministerial Meeting, Chiang Mai, Thailand, 7-8 August.
- APEC (2003d), 'APEC Informatization Survey for Small and Medium Enterprises', APEC Small and Medium Enterprises Working Group, Singapore: APEC Secretariat.
- APEC (2006), 'A Research on the Innovation Promoting Policy for SMEs in APEC Survey and Case Studies', December, APEC SME Innovation Center, Korea Technology and Information Promotion Agency for SMEs, Seoul.
- Bailey, Peter (2007), 'Cambodian Small and Medium sized Enterprises Constraints, Policies and Proposals for their Development', paper presented at the third workshop, the ERIA Related Joint Research of SME Project, IDE-JETRO, 13-14 November, Bangkok.
- BNM (2003), 'A Comprehensive Framework for the Development of SME in Malaysia', report, Kuala Lumpur: Bank Negara Malaysia.
- Cuong, Tran Tien, Le Xuan Sang, Nguyen Kim Anh (2007), 'Small and medium enterprises development in Vietnam: The case of electronics and motorcycle', draft report for the ERIA Related Joint Research of SME Project, IDE-JETRO, Hanoi: Institute for Economic Management, Vietnam
- Cuong, Tran Tien, Le Xuan Sang, and Nguyen Kim Anh (2008), 'Vietnam's small-and medium-sized enterprises development: characteristics, constraints and policy recommendations', paper presented at the fourth workshop, the ERIA Related Joint Research of SME Project, IDE-JETRO, 3-5 January, Bangkok.
- Dhungana, Bhavani P. (2003), 'Strengthening the Competitiveness of Small and Medium Enterprises in the Globalization Process: Prospects and Challenges', *Investment Promotion and Enterprises Development Bulletin for Asia and the Pacific*, no.1, 'ESCAP works towards reducing poverty and managing globalization', New York: Economic and Social Commission for Asia and the Pacific, United Nations.

- DOS (2005), 'Census of Establishments and Enterprises 2003. Preliminary Report – Profile of Small and Medium Enterprises', Kuala Lumpur: Department of Statistics.
- Hall, Chris (2002), 'Profile of SMEs and SME Issues in East Asia', in Charles Harvie and Boon-Chye Lee (eds.), *The Role of SMEs in National Economies in East Asia*, Cheltenham: Edward Elgar.
- Islam, Rafiqul, Hajah Rose Abdullah, Haji Karim and Noor Maya Haji Md Salleh (2001), 'Small and Medium Enterprises (SMEs) in Brunei Darussalam: Importance and Constraints', *Brunei Darussalam Journal of Technology and Commerce*, 2(1): 105-120.
- Jajri, Idris and Rahmah Ismail (2007), 'Source of output growth in small and medium scale enterprises in Malaysia', MPRA Paper No 2779, January, Kuala Lumpur: University of Malaya
- Kecharananta, Nattaphan and Piyamas Kecharananta (2007), 'Directions On Establishment Of Thailand's Small And Medium Enterprises Promotion Policy And Challenges In The Future', 2007 ABR & TLC Conference Proceedings, Hawaii.
- Kyophilavong, Phouphet, Chanthachone Sanesouphap, Sithanonxay, Suvannaphakdy and Ananthala Nakiengchan (2007a), 'Determine the performance of SME in Vientiane and Other provinces', *Lao journal of Economic and Business Management*, 2: 31-61.
- Kyophilavong, Phouphet, Piya Wongpit and Bounmy Inthakesone (2007b), 'SMEs Development in Lao PDR', paper presented at the third workshop, the ERIA Related Joint Research of SME Project, IDE-JETRO, 13-14 November, Bangkok.
- Leopairote, Manu (1999), 'Industrial Reform to Enhance Industrial Competitiveness: Implications and Strategies for SME Development', Asia-Pacific Regional Forum on Industry, UNIDO, Vienna.
- Lim, Hank (2008), 'SMEs in Singapore: Field Survey Report', paper presented at the third workshop, the ERIA Related Joint Research of SME Project, IDE-JETRO, 4-5 January, Bangkok.
- Long, Nguyen Viet (2006), 'Performance and obstacles of SMEs in Viet Nam Policy implications in near future', paper, International IT Policy Program (ITPP) Seoul National University, Seoul.
- Manning, C. (1998), *Indonesian Labour in Transition: An East Asian Success Story*, Cambridge University Press.
- Meas, Wat Ho (2004), 'Characteristics of Small and Medium Enterprises in Cambodia', paper presented at the 14th Nordic Conference on Small Business Research, May 11-13, Stockholm.
- Myint, Sein (2000), 'The SMEs and skill development in Myanmar', paper presented at the Leadership Forum 2000, 15-17 January, Bangkok.
- Oey, Mayling (1998), 'The Impact of the Financial Crisis on Indonesian Women: Some Survival Strategy', *The Indonesian Quarterly*, 26(2):81-90
- RAM Consultancy Services (2005), 'SME Access to Financing: Addressing the Supply Side of SME Financing', REPSF Project No. 04/003, Final Main Report, July, Bangkok.
- Rand, John, and Finn Tarp (2007), 'Characteristics of the Vietnamese business environment: evidence from a SME survey in 2005, Component 5', Business Sector Research, Business sector program Support, March, CIEM, DoE, ILSSA.
- Rasiah, Rajah (2001), 'Government-Business Coordination and Small Business Performance in the Machine Tools Sector in Malaysia', paper, June, Washington, D.C.: World Bank Institute/The World Bank
- Régnier, Philippe (2000), *Small and Medium Enterprises in Distress – Thailand, the East Asian Crisis and Beyond*, Aldershot: Gower Publishing Limited.
- Rusdillah, Erly (1987), 'Penelitian Wanita di Sektor Informal di Lima Kota' (Research on women in informal sector in five cities), paper presented at the National Training Workshop for User and Provider of Data and Indicators on Women Productive Economic Activities, October, 5-9, Jakarta.

- Sandee, Henry, B. Isdijoso, and Sri Sulandjari (2002), *SME clusters in Indonesia: An analysis of growth dynamics and employment conditions*, Jakarta: International Labor Office (ILO).
- Sandee, Henry (1994), 'The Impact of Technological Change on Interfirm Linkages. A Case Study of Clustered Rural Small-Scale Roof Tile Enterprises in Central Java', in P.O. Pedersen, A. Sverrisson, and M.P. van Dijk (eds.), *Flexible Specialization. The Dynamics of Small-Scale Industries in the South*, Intermediate Technology Publications, London.
- Sandee, Henry (2002), 'SMEs in Southeast Asia: Issues and Constraints in the Pre-and Post-Crisis Environments', in Charles Harvie and Boob-Chye Lee (eds.), *Globalisation and SMEs in East Asia*, Edward Elgar Publishing Limited.
- Sang, Le Xuan (2007), 'Vietnam's Small and Medium-sized Enterprises Development: The Cases of Motorcycle and Electronic Industries', paper presented at the third workshop, the ERIA Related Joint Research of SME Project, IDE-JETRO, 13-14 November, Bangkok.
- Syahrir, Kartini (1986), 'Lapangan Kerja Bagi Wanita di Sektor Informal' (Employment Opportunity for Women in Informal Sector), paper presented at the One Day Symposium on Employment Opportunity for Women, December 12, Jakarta.
- TAF (2001), 'Small and Medium Enterprise Development', research report, Jakarta: The Asia Foundation.
- Tambunan, Tulus T.H. (2006), *Development of Small & Medium Enterprises in Indonesia from the Asia-Pacific Perspective*, LPFE-Usakti, Jakarta.
- Tambunan, Tulus T.H. (2007a), 'The role of government in technology transfer to SME clusters in Indonesia: Micro-level evidence from the metal working industry cluster in Tegal (Central Java)', *South East Asia Research*, 15(3): 385-406
- Tambunan, Tulus T.H. (2007b), 'Transfer of Technology to and Technology Diffusion among Non-farm Small and Medium Enterprises in Indonesia', *Knowledge, Technology and Policy*, 20: 243-258
- UNCTAD (2003), 'Improving the Competitiveness of SMEs through Enhancing Productive Capacity', TD/B/Com.3/51/Add.1, January, Geneva: United Nations
- UNIDO (2004), 'Research Report on Improving Macroeconomic Policy and reforming administrative procedures to Promote Development of SMEs in Vietnam', Project US/VIE/95/004, Hanoi.
- Wiboonchutikula, Paitoon (2001), 'Small and Medium Enterprises in Thailand: Recent Trends', June, Policy Working Paper No. 37191, The International Bank for Reconstruction and Development, Washington, D.C.: The World Bank