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SME development, economic growth, and government intervention in a developing country: The Indonesian story

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Abstract There is an ongoing debate in the literature on the development of small and medium enterprises (SMEs) in less developed countries (LDCs) on two issues: the survival of SMEs in the course of economic development and the importance of government promotion programs for SME development. This research paper aims to examine those issues empirically with Indonesian data. For this purpose, it develops and tests a set of hypotheses. It shows that both real gross domestic product per capita and government development expenditure (especially that used to finance SME development promotion programs) have positive impacts on SME growth. With this finding, the research argues that SMEs in LDCs can survive, and even grow in the long-run, for three main reasons: (a) they create a niche market for themselves, (b) they act as a "last resort" for the poor, and (c) they will grow along with large enterprises (LEs) because of their increasingly important production linkages with LEs in the form of subcontracting.

Keywords SMEs · LEs · Economic development · Real GDP per capita · Government development expenditure · Women entrepreneurs

Introduction

The development of small and medium enterprises (SMEs) and changes in their structure over time through employment and output shares, output composition, market orientation, and location are usually thought to be related to many factors, including the level of economic development and government promotion programs. The main objective of this research is to examine empirically the effects of those two

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factors on the growth of SMEs. Specifically, it aims to answer two research questions: (1) whether SMEs will die out and the economy will be dominated by large enterprises (LEs) in the long-run as economic development proceeds or whether these enterprises will survive and even grow along with LEs and (2) whether government promotion programs are important for the growth of SMEs. To address these questions, a set of hypotheses is developed and generalized least square is employed to test them.

The next section examines the importance of SMEs in the Indonesian economy. Thereafter, the "Main constraints faced by SMEs" section discusses the main constraints facing SMEs. The "Women entrepreneurs" section deals with the gender aspect of SME development. The "SMEs development programs" section discusses the importance of government-sponsored SME development programs. Theoretical contributions on the links between SME growth and those two factors are given in the "Economic development, government supports, and SME growth" section. Methodology, results, and discussion of the results are given, respectively, in the next three sections. Finally, concluding remarks of this study are given in the "Concluding remarks" section.

This study uses the SME definition adopted by the National Agency for Statistics (BPS) in Indonesia, which uses the number of workers as the basis for determining the size of an enterprise. In its definition, small enterprises (SEs) and medium enterprises (MEs) are business units with, respectively, 1–19 and 20–99 workers, and LEs are units with 100 or more workers.

The importance of SMEs in the Indonesia economy

In Indonesia, SMEs have historically been the main player in domestic economic activities, especially as a large provider of employment opportunities, and, hence, a generator of primary or secondary sources of income for many households. For low-income or poor farm households in rural areas, SE units with fewer than 20 workers in non-farm activities are especially important. These enterprises have also been an important engine for the development of local economies and communities. However, compared with many other more developed Asia Pacific Economic Cooperation economies, Indonesian SMEs are not yet contributing significant value added to the national economy. Instead, they have been more important as the locus of most employment (Tambunan 2006).

SMEs have also been recognized as having another important role in Indonesia as an engine for development and the growth of exports of non-oil and gas, particularly in the manufacturing sector. This is in line with evidence in East and Southeast Asia in countries like South Korea, Taiwan, Hong Kong, and Singapore, showing that the most successful cases of SME development have directly contributed to trade and the adoption of export-oriented strategies. The experiences of these countries indicate that SMEs can compete effectively in both the domestic and international marketplace.

Typically, SMEs in Indonesia account for more than 90% of all firms outside the agricultural sector, and thus, they are the biggest source of employment, providing livelihood for over 90% of the country's workforce, especially women and the

young. 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 the 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 and 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 number are not. Many SEs face closure or very difficult upgrading, especially with import liberalization, changing technology, and the growing demand for higher-quality, modern products. However, the existence or growth of this type of enterprise can be seen as an early phase of entrepreneurship development.

According to BPS data, SEs in 1997 accounted for more than 39.7 million units, or about 99.8% of the total number of enterprises in the country in that year, and increased to more than 48 million units in 2006 (Table 1). Generally speaking, this table may indicate that, every year, new entrepreneurs are 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.

Distribution by sector shows that SMEs are concentrated in agriculture, followed by trade and hotels and restaurants as the second largest sector and the manufacturing industry as the third largest sector (Table 2). 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. Only a small portion of total SMEs are engaged in production of machinery, production tools, and automotive components. This is generally carried out through subcontracting systems with several multinational car companies such as Toyota and Honda. This structure of industry reflects the current technological capability of Indonesian SMEs, which are not yet as strong in producing sophisticated technology-embodied products as their counterparts in other countries such as South Korea, Japan, and Taiwan.

In terms of output, SMEs performed relatively well. SEs and MEs grew at, respectively, 3.96% and 4.59% in 2001 and higher at 5.38% and 5.44% in 2006. LEs experienced growth rates of 3.04% and 5.60%, respectively, during the same period (Fig. 1).

Table 1 Total units of enterprises by size category: 1997–2006 (000 units)

Size category	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	39,969.995	43,466.8	44,784.14	47,109.6	48,936.8

Source: BPS

Table 2 Total unit of enterprises by size and sector, 2000, 2005, and 2006 (%)

Sector	2000				2005				2006			
	SE	ME	LE	Total	SE	ME	LE	Total	SE	ME	LE	Total
1. Agriculture	59.23	2.22	1.20	59.11	55.86	1.74	0.85	55.75	53.68	1.57	0.74	53.56
2. Mining	0.38	0.67	1.18	0.38	0.50	0.69	1.60	0.50	0.54	0.58	1.67	0.54
3. Manufacture	6.57	14.91	33.57	6.59	5.95	14.30	36.98	5.97	6.56	15.82	35.47	6.58
4. Elect., gas & water supply	0.03	1.02	3.08	0.04	0.03	0.97	2.98	0.03	0.03	0.90	2.96	0.03
5. Construction	0.31	3.63	4.42	0.32	0.34	4.08	4.30	0.35	0.33	3.52	4.41	0.34
6. Trade, hotel & restaurant	24.37	55.36	24.95	24.43	25.89	53.38	21.83	25.95	27.13	54.03	24.11	27.19
7. Transport & communic.	4.70	2.89	3.88	4.70	5.54	4.48	4.67	5.53	5.52	4.46	4.47	5.52
8. Finance, rent & service	0.13	11.14	20.60	0.15	0.13	11.22	18.06	0.16	0.15	10.51	17.68	0.17
9. Services	4.28	8.17	7.12	4.29	5.76	9.13	8.72	5.77	6.06	8.60	8.50	6.06
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: BPS

Even in terms of gross domestic product (GDP) contribution, SMEs performed better than their larger counterparts, as they accounted for more than 50% of GDP during that period (Table 3). SMEs' output contribution to the annual growth rate of GDP was also higher than that of LEs (Fig. 2). On average, the GDP growth share of SMEs was above 2%, whereas that of LEs was under 2%. Within SMEs, SEs' GDP growth share was higher than that of MEs.

Main constraints faced by SMEs

The development of viable and efficient SMEs is hampered by several constraints.[1] The constraints may differ from region to region, between rural and urban areas, between sectors, or between individual enterprises within a sector. However, there are certain constraints that are common to all SMEs. These common constraints include lack of capital, difficulties in procuring raw materials, lack of access to relevant business information, difficulties in marketing and distribution, low technological capabilities, high transportation costs, communication problems, problems caused by cumbersome and costly bureaucratic procedures (especially in getting the required licenses), and policies and regulations that generate market distortions.

Tybout (2000) has found that the manufacturing industries of less developed countries (LDCs) have traditionally been relatively protected. They have also been subject to heavy regulations, much of which have favored LEs. Accordingly, it is often argued that, in LDCs, (1) markets tolerate inefficient firms, and thus, cross-

[1] Unfortunately, evidence on constraints faced by LEs is very rare, and there are no data from BPS. Some reports on competitiveness and business environment may give an idea about business constraints faced by LEs (e.g., distorted market, labor disputes, red tape, burdensome tax system, lack of infrastructure, too many retributions, etc.). However, there are data on the constraints on technology acquisition.

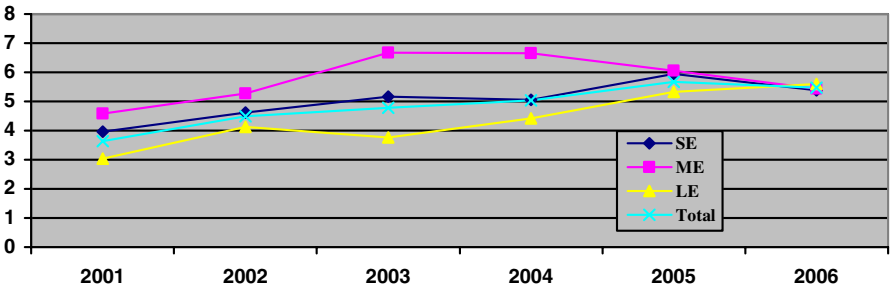

Fig. 1 Output growth rates of SEs, MEs and LEs, 2001–2006 (%)

firm productivity dispersion is high; (2) small groups of entrenched oligopolists exploit monopoly power in product markets; and (3) many SMEs are unable or unwilling to grow, meaning that important scale economies go unexploited.

In 2003, BPS conducted a survey on enterprises with 0 (i.e., self-employment units) to 19 workers in the manufacturing industry. The enterprises are divided into two subcategories: very small or microenterprises (MIEs), i.e., with 0 to 4 workers, and SEs, i.e., with 5 to 19 workers. The findings as given in Table 4 show 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, have 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. 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 that hamper business activities in Indonesia. Before the 1997/1998 crisis, among the most egregious restrictive regulations were policy-generated barriers to domestic competition and trade (interregional and interisland) 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. Unfortunately, after the introduction of regional autonomy in early 2001, several restrictive regulations on domestic competition and trade were reintroduced by the regional governments. These onerous restrictive regulations have worsened the business environment, including for the many SMEs. Despite the fact that SMEs are mostly owned and run by the "economically weak groups in society," these enterprises are subjected to

Table 3 Structure of GDP by size and sector, 2000–2006 (%)

Sec[a]	2000			2001			2002			2003			2004			2005			2006			Total
	SE	ME	LE	SE	ME	LE	SE	ME	LE	SE	ME	LE	SE	ME	LE	SE	ME	LE	SE	ME	LE	
1	86.5	9.0	4.5	87.1	8.7	4.2	87.6	8.4	4.1	87.5	8.5	4.0	87.4	8.6	4.1	87.3	8.6	4.1	86.8	8.9	4.3	100.0
2	5.6	2.7	91.8	6.2	2.8	90.9	8.3	3.2	88.4	9.2	3.5	87.3	8.5	3.3	88.3	7.0	3.0	90.0	8.2	3.2	88.6	100.0
3	13.3	12.6	74.2	15.6	12.4	73.9	13.7	12.6	73.7	13.9	12.6	73.6	13.3	12.2	74.5	12.7	11.6	75.8	12.5	11.3	76.3	100.0
4	0.6	8.9	90.5	0.6	8.1	91.4	0.6	9.1	90.3	0.6	8.4	91.1	0.5	7.4	92.0	0.5	7.6	91.9	0.5	7.6	91.9	100.0
5	44.6	21.8	33.7	44.8	21.8	33.4	44.3	21.8	33.9	44.6	21.8	33.6	44.0	21.7	34.3	44.3	21.8	33.9	44.2	21.8	34.0	100.0
6	74.8	21.5	3.8	74.4	21.8	3.9	75.8	20.5	3.7	75.2	21.0	3.8	74.9	21.2	3.9	75.7	20.7	3.7	76.1	20.3	3.6	100.0
7	34.8	25.3	39.9	35.2	26.2	38.6	32.8	24.9	42.3	32.0	24.9	43.1	29.1	24.4	46.5	28.8	24.0	47.2	29.8	23.5	46.7	100.0
8	18.0	47.2	34.8	18.1	46.7	35.3	17.9	47.3	34.8	17.2	46.7	36.1	17.2	47.0	35.8	17.0	47.0	36.1	16.7	46.9	36.4	100.0
9	36.8	7.6	55.5	36.7	7.6	55.8	39.4	7.9	52.7	38.9	7.8	53.3	38.9	7.8	53.3	40.8	8.2	51.1	40.2	8.0	51.8	100.0
GDP	38.9	15.8	45.3	39.0	15.8	45.2	40.8	16.2	43.1	40.5	16.3	43.2	39.2	16.2	44.6	37.8	15.7	46.5	37.7	15.6	46.7	100.0

Source: BPS

[a] Code of sector, see Table 2

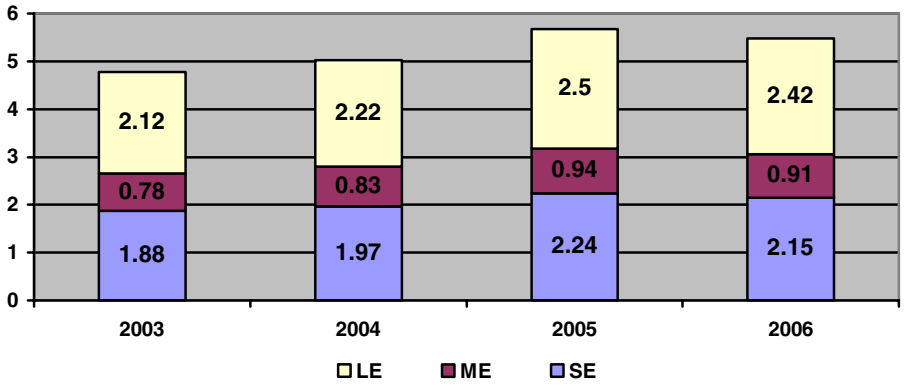

Fig. 2 GDP growth contribution by size of firms, 2003–2006 (%)

various illegal levies, so-called "contributions," at both the central and regional government levels.

Interestingly, although it is well-known from the literature that the lack of adequate skills is also a major constraint to SMEs, especially SEs and MIEs, Table 4 indicates that these surveyed enterprises did not consider it as a serious problem. However, this may be due to the fact that many owners of SEs and MIEs were not aware that their productivity is low and the quality of their products is inferior compared to the products of the LEs or imported products, especially since many of these enterprises produce only for low-income consumers in local markets that enjoy natural protection from competition from similar goods produced by larger enterprises or from import. The problem of unskilled entrepreneurs in MIEs and SEs is shown in Table 5.

Women entrepreneurs

Recently, there has been an increasing interest in women entrepreneurship development among policy makers, academics, and practitioners in Indonesia. This

Table 4 Main Problems faced by SEs and MIEs in Manufacturing Industry, 2003

	SEs	MIEs	Total SEs and MIEs
Have no problem	46,485 (19.48)[a]	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 SEs & MIEs	238,582 (100.00)	2,490,118 (100.00)	2,728,700 (100.00)

Source: BPS
[a] Percent

Table 5 Education of Entrepreneur in Non-Farm MIEs and SEs by Gender, 2003 (%)

Level of education	Female	Male
Not finished primary school	27.88	14.27
Finished primary school	40.82	39.49
Finished high school first degree (SMP)	18.62	25.87
Finished high school second degree (SMA)	11.77	18.37
Higher education	0.91	6.5

Source: BPS

interest comes from the recognition that the creation of women entrepreneurship, especially in rural areas, will contribute to the 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.

At least two main characteristics of development of women entrepreneurship can obviously be observed in LDCs. First, SMEs are more important than LEs for women entrepreneurs. Second, within SMEs, the female/male entrepreneur ratio is generally higher in SEs than in larger-sized and more modern enterprises. This is due to the fact that women in LDCs are more likely than men to be involved in informal activities, which consist predominantly of SEs, either as self-employed individuals or employers or paid/unpaid workers. Database from the International Labour Organization indicate that almost 95% of SEs in LDCs are performed by women as self-employed, though the percentage varies between countries or regions.

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 increasing number of women-owned enterprises is partly due to the increase of women's educational level and to the economic pressure women face in their households. However, the only readily available official statistics on women-led enterprises in Indonesia are in SEs, as presented in Table 6. From this table, there are three interesting facts. First, it reveals that only 32% of these enterprises are run by women. If it is assumed that this percentage is applied to MEs and LEs and if the total number of enterprises can be used as an indicator of current state of the art of women entrepreneurship development, then the table suggests that becoming an entrepreneur in Indonesia is still dominantly a male culture.[2]

[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. However, it is probably safe to say that very few women-led SEs grow into MEs and LEs.

Table 6 Women entrepreneurs in non-farm SEs, 2003

Sector	Total enterprises	Entrepreneurs/owners	
		Male	Female
Mining, electricity (non-stated own/ PLN) & construction	253,146 (100.00)[a]	237,050 (93.64) [2.21][b]	16,096 (6.36) [0.32]
Industry manufacturing	2,641,909 (100.00)	1,636,185 (61.93) [15.25]	1,005,724 (38.07) [19.91]
Trade, hotel, & restaurant	9,228,487 (100.00)	5,649,138 (61.21) [52.64]	3,579,349 (38.79) [70.86]
Transportation & communication	2,170,291 (100.00)	2,140,022 (98.60) [19.94]	30,269 (1.40) [0.60]
Financial institutions, real estate, renting, and services	1,490,226 (100.00)	1,070,001 (71.80) [9.97]	420,225 (28.20) [8.32]
Total	15,784,059 (100.00)	10,732,396 (68.00) [100.00]	5,051,663 (32.00) [100.00]

Source: BPS
[a] Distribution percentage by row (sector)
[b] Distribution percentage by column (entrepreneur)

Second, in the manufacturing industry, from a total of 1,005,724 women-owned firms, about 97.9% are in SEs, employing five or fewer people (and in many cases are nonemploying). They choose SEs simply because this economic activity is characterized by an easy entry and exit and low capital, skills, and technology requirements. In this sector, women entrepreneurs tend to pursue areas where they have gender-based skills and know-how such, as in food, beverages, tobacco, clothing, and crafts industries.

Third, sectoral distribution is more or less similar for male and female entrepreneurs, as they both are concentrated in trade, hotels, and restaurants, although the percentage is higher in the latter. In Indonesia, females are more likely than males to be involved in this sector, mostly as own-account traders having small shops or as owners of small restaurants or hotels.

The relatively low representation of women entrepreneurs in Indonesia can be attributed to at least four main factors. First, the low level of education and the lack of training opportunities that make Indonesian women severely disadvantaged in both the economy and society may play an important role. The index of gender development, developed by the UNDP to observe gender inequality in human development, shows that, although gender inequality in Indonesia is tending to decline, it is still relatively higher than in neighboring countries. As an illustration, gender inequality reflected in the difference in the human development index (HDI) and gender-related development index (GDI) in Indonesia in 2002 is 0.007 (HDI 0.692 and GDI 0.685), while in Thailand and Vietnam, for instance, in the same year the difference was only 0.002 (Suharyo 2005).

Official data on working population by education in Indonesia indicate that, although there has been some improvement in the last 20 years, the average level of education of males is still higher than that of females. This national education structure by gender is consistent with Table 5, showing that female entrepreneurs

have very low levels of education. Less than 1% of female entrepreneurs have university diplomas, as compared to their male counterparts at 6.5%.

In addition, a report on gender mainstreaming in the education system in Indonesia (Jalal 2004, quoted from Suharyo 2005) shows that the illiteracy rate for women is still higher than men and the gap between men and women in rural areas is much higher than that in urban areas. Many rural women speak only their native language and never read newspapers, making them very restricted in their communication with the outside world. Particularly among women living in rural areas, there are still many social, cultural, and religious taboos that prevent those women who can and should be accessing higher education from doing so. Many parents living in rural areas still have the traditional thinking that (higher) education belongs to men only, especially since after marriage women leave to join their husbands' families and, therefore, are not regarded as being useful to their own families in the long run.

However, although this traditional thinking still exists in rural society, it depends on the economic condition of the family, as well as the education level of the parents or husbands. The better the economic condition of the family or the better the education of the parents/husbands, the less traditional their attitudes are towards women receiving better education.

Second is the burden of 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, traditional, custom, cultural, or religious constraints on the extent to which women can open their own businesses. Especially in rural areas, where the majority of the population are Muslim and rather isolated from big cities like Jakarta, Islamic-based norms have stronger influence on women's daily life. This makes female behavior or attitude in rural areas less open than that of males (or 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. However, in rural areas relatively close to urban areas with good transportation and communication links, changes in local society attitudes about the traditional role of women being responsible for housework and child care and dependant on men for income in the last 30 years are observable.

Fourth is the 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 deprive 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).

Finally, the participation rate of female entrepreneurs varies by region. Interestingly, although the majority of the population and a larger number of SEs are located in Java, the island, Nusa Tenggara (NT) in the eastern part of the country has the highest ratio of female/male entrepreneurs, which means that there are more female than male entrepreneurs in NT. However, this does not necessary reflect the higher spirit of female entrepreneurship in NT than in the rest of the country. NT is a region with a very high unemployment rate. Economic activities such as mining, manufacturing industry, construction, agriculture, and banking are more or less stagnated on this island. Most matured or married men are working in low-income-generating activities such as transportation, motorcycle repair workshops, or agriculture as marginal/subsistent farmers owning less than 0.5~ha of land, or as civil servants. So, as a family survival strategy, the wife is "pushed" to do something outside the home to earn income. Therefore, the high participation rate of female entrepreneurs in NT is most likely to be a reflection of a family survival strategy rather than a spirit of entrepreneurship. In other words, female entrepreneur development in NT is more a "push" rather than a "pull" phenomenon.

SMEs development programs

While it is impossible to itemize all government programs, the SMERU Research Institute has been able to map most important existing SME assistance programs provided by government and nongovernment institutions during the period 1997–2003. The data in Table 7 show that there were 64 institutions, categorized into six groups, whose assistance programs to strengthen SMEs were successfully mapped. A total of 594 programs were identified, and most of them were provided by the government (65%). Other programs were conducted by nongovernmental organizations (NGOs) (18%), donor agencies (8%), banking institutions (5%), private companies (2%), and other institutions. The scale of each assistance program varied greatly based on the amount of funds, time frame, and geographical scope. Hence, one program cannot be directly compared with another.[3]

Table 8 shows that the type of assistance activities varied. The number of activities within each program also varied, but generally ranged between one and three. Of the 594 assistance programs, there were 1,044 types of activities. In total, the most common types of activities were the provision of training (22.9%), capital assistance/credit (17.3%), facilitation (16.1%), and the dissemination/introduction of new technology (15.2%).

[3] For more detailed information about each program from each institution, including the name of the program, type of assistance, program executor, timeframe, fund used, area, beneficiaries, status, problems, and potential, see SMERU at www.smeru.or.id.

Table 7 Number of institutions and assistance programs to strengthen SMEs, 1997–2003

Institutions	Number of institutions	Number of assistance programs		
		Total	Still continuing	
			Total	%
a) Government institutions	13	388	127	32.7
b) Banking institutions	7	31	25	80.7
c) Private companies	10	12	12	100.0
d) Donor agencies	8	46	15	32.6
e) NGOs	20	109	79	72.5
f) Others	6	8	8	100.0
Total	64	594	266	44.8

Source: SMERU (2004)

The data in Table 8 show that government agencies are the most common institutions that introduced new technology (27.9%) and provided training (21.1%), whereas other institutions mostly provided capital assistance. Of all the institutions, government agencies played the most prominent role (50.9%), followed by NGOs (29.4%) and donor agencies (10.1%). Based on the type of activity, training was mostly undertaken by government institutions (46.9%) and NGOs (37.2%). Capital assistance was mostly provided by local and international NGOs (50.3%), followed by government institutions (15.5%) and banking institutions (14.9%). Facilitation was mainly provided by NGOs (52.4%) and government institutions (35.7%).

In Indonesia, numerous government promotion programs for SMEs have been created nation-wide, including: Small Enterprise Development (generally known as the KIK/KMKP subsidized credit program for SMEs); the Small Enterprise Credit (KUK) scheme; the credit program for village units (KUPEDES); small rural development banks (BKD); human resource development training programs (such as in production techniques, general management (MS/MUK), management quality systems (ISO-9000), quality control methods, entrepreneurship (CEFE, AMT), and extension services); Cooperatives of Small-Scale Industries (KOPINKRA) in

Table 8 The proportion of assistance programs to strengthen SMEs based on type of activities and implementing institutions

	A[a]	B	C	D	E	F	Total
Capital assistance	5.3	52.9	25.0	21.0	29.6	28.6	17.3
Training	21.1	13.7	22.2	19.0	29.0	21.4	22.9
Facilitation	11.3	9.8	19.4	7.6	28.7	0.0	16.1
Information	1.9	7.8	2.8	3.8	1.6	21.4	2.6
Facilities	16.2	2.0	5.6	8.6	1.0	0.0	9.7
Promotion	3.0	3.9	13.9	6.7	1.0	7.1	3.3
Dissemination/introduction of new technology	27.9	0.0	0.0	6.7	1.3	0.0	15.2
Guidelines	4.3	0.0	0.0	0.0	0.7	0.0	2.4
Others	9.0	9.8	11.1	26.7	7.2	21.4	10.5
Types of activities	531	51	36	105	307	14	1,044

Source: SMERU 2004
[a] See Table 7

clusters; small-scale industrial estates (LIK), the Foster Father scheme; Small Business Consultancy Clinics (KKB); the Export Support Board of Indonesia (DPE), common service facilities (UPT) in clusters; and an incubator system for promoting the development of new entrepreneurs.

Government departments, specifically the Directorate-General of Small-Scale Industry from the Department of Industry, and the Office for the State Minister for Cooperatives and SMEs have taken the lead in the implementation of the SME development programs. These departments, like other departments, have regional offices for the delivery of these various services in their respective regions.

The data from the Integrated Business Survey 2003 from BPS show that the government played a significant role in supporting the development of SMEs. The Survey indicated that, out of a total of 481,714 units of non-farm SMEs receiving government support in 2003, 203,563 firms (43%) received support through one or more of the various government programs. The remainder (52%) received support from NGOs, foreign foundations, and a number of large private companies. The distribution by region shows that the majority of those receiving support from the government are located in Java and Bali (Fig. 3). However, as a percentage of the total number of SMEs receiving government support in a region, the region of NT (both Barat and Timur) scored the highest, while Java and Bali ranked third (Fig. 4).

To assess the effectiveness of SME assistance programs, SMERU (2004) conducted a field study of 172 respondents in six districts/towns (including

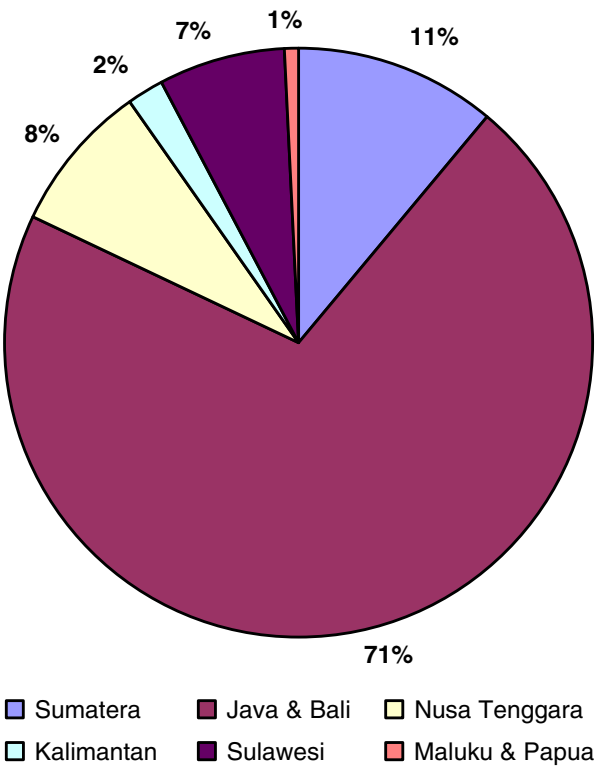

Fig. 3 Distribution of non-farm SMEs that received supports from the government by region, 2003

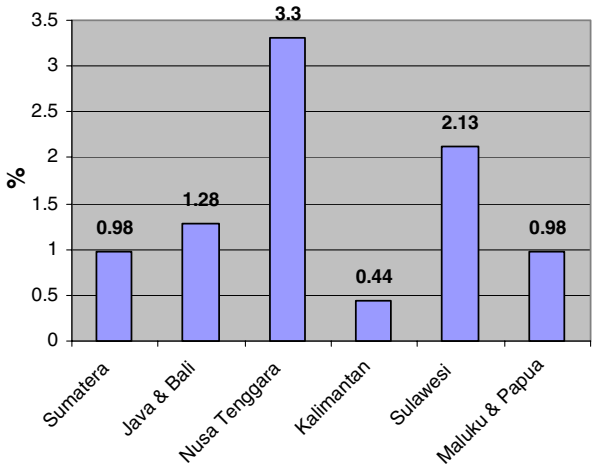

Fig. 4 Proportion of SMEs that received assistances from government by region, 2003 (percent of total SMEs in the region)

Kabupaten Sukabumi; Bantul and Kebumen; and Kota Padang, Surabaya, and Makassar) consisting of SMEs in trade, industry, and services. These were informal, nonlegal entities whose turnover and number employees fluctuated and which operated with only simple technology. Because a large number of assistance programs recorded in the field were capital assistance programs, the impact on respondents was generally economic. The finding shows that a majority of the SMEs did claim that their business had improved because of the assistance programs.

Economic development, government supports, and SME growth

The development of SMEs and changes over time in their GDP shares, output composition, market orientation, and location are usually thought to be related to many factors, including the level of economic development and government supports. Given this thought, the questions addressed in this paper are twofold: (1) whether SMEs will die out or grow with the increase in real income per capita and (2) whether government support is important for the development of SMEs.

"Classical" paradigm

In discussing the role of SMEs and their pattern of development in LDCs, attention usually focuses on seminal articles by Hoselitz (1959), Staley and Morse (1965), and Anderson (1982), among some others. Their works are often classified as the "classical" theories on SMEs' development. This was started first by Hoselitz in his study (1959) on industrialization in Germany, which indicated that, in the "early" stage of development, the manufacturing sector in the country was predominated by artisans or craftsmen, and as the process proceeded, many of them grew into larger sized and more modern establishments of industry, while smaller and traditional units of production died out. Following Hoselitz's work, Parker (1979) and

Anderson (1982) had developed general growth phase typologies based on the experience of the industrialized countries to explain changes in the size structure of industry by region and over time in LDCs. According to this approach, in the course of economic development, the composition of manufacturing activities, if classified according to scale, appears to pass through three phases. In phase one, at the "early" stage of industrial development, which may be characteristic of predominantly agrarian economies, household and artisanal activities (MIEs) in the manufacturing industry are predominant in terms of their total number of production units and share in total manufacturing employment. This is a stage of industrialization in which a large number of MIEs (mainly in rural areas) coexist with a quite limited number of larger-scale firms (mainly foreign or state-owned firms located in urban areas or large cities). In this stage, MIEs are predominant in activities such as garment-making, smithy, footwear, handicrafts, masons, industries making simple building materials, and various crop-processing industries. They are closely related to agricultural production, as providers of rudimentary inputs to and of processing services for output from agriculture, and of the nonfood needs of the rural population.

In phase two, in more developed regions with higher incomes per capita, SMEs emerge and increase at a comparatively rapid rate and act to displace MIEs in several subsectors of manufacturing. There are some factors that might explain the expansion of these industries in this particular stage of development. Steel (1979), for instance, emphasizes the importance of a growing cash market for the expansion of SMEs: "Increased urbanization and expanding cash markets give rise to a shift from traditional household activities to complete specialization of the entrepreneur in small scale production and increased use of apprentice and hired labor" (p.9).

In phase three, at the "later" stage of development, large factories (LEs) become predominant, displacing the remaining SMEs in some activities. According to Anderson (1982), this phase is partly a product of phase two, since the recorded growth of output and employment in LEs can be divided into: "a) the growth of once small firms through the size structure, and b) the expansion of already large domestic and foreign concerns" (p.914). However, the expansion of LEs in this stage may also be caused, to a certain extent, by new large-scale entrants, which is not explicitly taken into account by Anderson.

In this final phase, the use of economies of scale with respect to plant, management, marketing, and distribution (depending on types of products and flexibility in production); superior technical and management efficiency; better productive coordination and access to supporting infrastructure services and external finance; and concessionary finance along with investment incentives, tariff structures, and government subsidies are all powerful causes or incentives for firms to grow larger. In practice, it is often found that these factors are more favorable for large or modern industries than for small and traditional ones, and so, they may explain the eventual better performance of larger enterprises than small ones in advanced stages of industrialization.

Both Hoselitz (1959) and Anderson (1982), among some others in this "classical" thesis of SME development, predict that advantages of SMEs will diminish over time and LEs will eventually predominate. They believe that, in the course of economic development, reflected by the increase of per capita real income/GDP, the

"economic" share of SMEs (i.e., their shares in GDP, employment, sectoral output, and number of enterprises) will decline steadily. Given this prediction, hypothesis 1a is then: the growth in SMEs is negatively related to the level of income per capita.

"Modern" thesis

In the 1980s, a new issue, called "flexible specialization" emerged and many research or seminar papers, articles in journals, and books on this issue have been published since then. The birth of this new issue was the result of a long debate over how to interpret the new global pattern of production caused by globalization forces and industrial restructuring. These have changed the way in which production and labor are organized. Some authors argued that global production has been undergoing a transformation from Fordist (or mass production) to non-Fordist production.[4] The concept of flexible specialization has been closely associated with Piore and Sabel's (1984) seminal work on the "second industrial divide," in which they discussed the reemergence of craft-based regions in some countries in West Europe, i.e., Italy, Austria, and Germany.[5] Piore and Sabel argued that SMEs located in these regions have become the new dominant form of industrial organization. These industries are characterized as industries with high- and multiskilled workers, "flexible" machinery that embodies the latest technology, and small batch production of a range of specialized products manufactured for the global market.

The main argument of the flexible specialization thesis is that SMEs can grow fast or even faster than LEs with the process of development. In many western countries, including Japan, Sweden, and the USA, SMEs in some subsectors, e.g., electronics and automotive, have been found to be very significant as sources of invention, innovation, and efficiency, and these enterprises are also capable to stand the competition with LEs, and even to improve their relative position these days in several instances.

Many studies support this thesis. Liedholm (2002), for instance, investigated the determinants of survival and growth of SMEs in Africa and Latin America. Location was found to be an important factor: SMEs located in urban and commercial areas are more likely to survive or even to grow than those located in rural areas. Urban and commercial location is also associated with faster income growth. Thus, this study suggests a positive relationship between the increase in income and the growth of SMEs.

Thus, in contrast to the "classical" paradigm, the flexible specialization literature, which can be classified as the "modern" paradigm on SMEs' development, suggests that, as income per capita increases in the course of economic development, the "economic" share of SMEs would increase, although the assumed positive correlation will vary among countries due to differences in many internal factors, including level and pattern of economic development and basic economic

[4] See, for instance, Piore and Sabel (1983, 1984), Harvey (1990), and Scott (1988).

[5] In their interpretation, the first industrial divide occurred during the nineteenth century with the emergence of mass production, and the second industrial divide has occurred in the late twentieth century with the reemergence of craft industries (Piore and Sabel 1984).

conditions. So, from this "modern thesis," hypothesis 1b is then: the growth in SME is positively related to the level of income per capita.

"Pro-SME Policy" thesis

The pro-SME policy advocates argue that SMEs enhance competition and entrepreneurship, and hence, they have external benefits on economy-wide efficiency, innovation, and aggregate productivity growth. From this perspective, government supports for SMEs will help countries exploit the social benefits from greater competition and entrepreneurship (World Bank 1994, 2002, 2004). This suggests that government development expenditures have positive effects on the growth of SMEs, and the effects are both indirect (i.e., public services and infrastructure) and direct (e.g., government-sponsored special credit schemes and training programs for SMEs). Given this, hypothesis 2 is then: the growth in SME is positively related to government development expenditures.

Methodology

Sample and sources of data

This study used annual data on SMEs from the BPS for the period 1993–2006. BPS started to publish time series data on SMEs in Indonesia only since 1993, covering a limited range of aspects, namely, number of units, total workers employed, and output value. Information on real GDP per capita and government development expenditure was also from BPS. This study used generalized least square to test all the hypotheses.

Variables

To analyze the relationships between SME growth and real income per capita and government development expenditure, the dependent variable is the ratio of SME's value added in GDP (i.e., the SME's share in GDP), and the only two independent variables in this analysis are real GDP per capita and the ratio of government development expenditures to GDP. Since there are no time series data on government development programs for SMEs, government development expenditure is used instead. Control variables to account for other factors known in the literature to affect SME performance, such as research and development expenditure as a percentage of total sales, skilled workers employed, etc., are not included in the model since no data are available.

Results

Table 9 presents the descriptive statistics and a correlation matrix for the variables. The correlation matrix reveals that the correlation between SME's share in GDP and government development expenditure's share in GDP is higher than that between the

Table 9 Descriptive statistics and correlation

No	Variable	Mean	S.D	Correlation	
				2	3
1	SME-GDP	54.19286	1.395853	0.501317	0.606921
2	GDP p.c	3.98E+08	2.87E+08		0.191200
3	G/GDP	10.24628	3.837041		

first and real GDP per capita. The regression results are presented in Table 10, which show that both regression coefficients of the two independent variables are positive and significant at 5% (for one-tailed test).

Discussion

The above results have important implications for the debate mentioned earlier in this paper. With respect to the survival of SMEs over time, the result rejects the "classical" paradigm, suggesting that SMEs will disappear in the course of economic development as real income per capita increases. At least for Indonesia, there are two main supporting arguments for this finding. First, a majority of SMEs produce a variety of simple and cheap consumption goods, mostly for local markets and consumed by poor or low-income households. They survive and grow in competition with LEs and imported goods because they differentiate their products by nature or acquire. With that, they create a niche market for themselves, which is outside the competitive area of similar but more sophisticated items produced with modern machines by LEs. In such circumstances the SMEs have a better chance to survive and, hence, to grow. They will probably be out-priced in the market if they try to compete with LEs for exactly the same products when the economies of scale prescribe a large scale production, and it depends on modern technologies. Moreover, although real income per capita in Indonesia increases annually, the majority of the population in the country still earn low income, and this means that local markets for SMEs' cheap products are still large.

Table 10 Generalized least square regression of SME growth, 1993–2006

Independent variables	SME-GDP
Intercept	51.44069 (0.865679)[a] (59.42239)[b] (0.0000)[c]
GDP p.c	1.95E-09 (1.03E-09)[a] (1.883780)[b] (0.0863)[c]
G/GDP	0.192973 (0.077225)[a] (2.498848)[b] (0.0296)[c]
Observations: 14	
R-squared: 0.522421	
Durbin–Watson statistic: 0.853842	
F-statistic: 6.016415	

[a] Std. error
[b] *t* statistic
[c] Probability

Second, the growth of SMEs, particularly SEs, in Indonesia is also partly related to the country's labor market condition. Many SE activities are undertaken by low-income or poor households, either as a primary or a secondary source of income, as a means for them to survive. In other words, SE activities act as a "last resort" for the poor. That is why the boom of SEs in Indonesia is often seen not as a sign of entrepreneurship development but merely as a symptom of distress (Tambunan 2007).

Third, it has been observed in recent years that the production linkages between SMEs and LEs in terms of subcontracting in Indonesia have become increasingly important because of the trend towards what Richard (1996) called "diverticalization." LEs, in order to remain competitive, increasingly focus on core competence and buy in other products and services. Therefore, these SMEs will grow along with the growth of LEs in the course of economic development.

With respect to the importance of government supports to SMEs, the result supports the pro-SME policy advocates, which have three core arguments (World Bank 1994, 2002, 2004). First, SMEs enhance competition and entrepreneurship and, hence, have external benefits on economy-wide efficiency, innovation, and aggregate productivity growth. From this perspective, government development programs specially designed to support SMEs will help countries exploit the social benefits from greater competition and entrepreneurship. Second, SMEs, at least in many cases, are generally more productive than Les, but financial market and other institutional failures impede SME development. Thus, pending financial and institutional improvements, government financial supports for SMEs can at last boost economic growth and development. Finally, SME expansion boosts employment more than LEs growth because SMEs are more labor-intensive. From this perspective, supporting SMEs may represent a poverty-alleviation tool. In Indonesia, the main motivation behind the SME policy is indeed to generate employment and, hence, to reduce poverty.

Of course, this does not say that direct interventions are more important than indirect ones for the growth of SMEs. Even, in many cases, public policies or government development expenditure on such as infrastructure yield more results than direct supports for business development, including SMEs. For instance, based on their finding from a wood furniture SME cluster in Jepara (Central Java), Sandee et al. (2002) concluded that SME development programs combined with public interventions are likely to have contributed to the success of this cluster. A comprehensive development package, including technical upgrading through the provision of a common service facility for wood drying, export training and support for participation in trade fairs, and investment in improvement of the regional infrastructure (container facilities, roads, and telephones), helped the cluster to gradually develop export markets. From their cross-country study, Acs and Szerb (2007) also argued that public policies focusing on increasing human capital, upgrading technology availability, labor market reform, and deregulation of financial markets are important to support growth of SMEs.

Concluding remarks

Before drawing any conclusion, it should be noted that this study has some limitations. The most notable one is the fact that the empirical results were derived

from a sample of Indonesian SMEs, and hence, the findings might be country-specific. Future studies could use samples of firms from other countries in different patterns or levels of development to test whether these findings can be extended and generalized. In addition, with respect to the link between SME growth and income per capita, it would be ideal to use time series data on the same firms to get a better picture on SMEs dynamics. With respect to the link between SMEs and government supports, the picture would also be much better if data on total expenditures of SME development programs were used instead. Unfortunately, such data were not available. For future research, this kind of macrolevel research should be supplemented with microlevel studies. For instance, to observe more closely the impact of government support on SME growth, a field survey should be conducted on two groups of enterprises in the same sector (and much better if they are in the same location), the ones that received government supports and the ones that did not.

Regardless of these limitations, this study has made two important contributions to the literature on SMEs' development in LDCs in particular and theories of firm growth in general. First, it supports the "modern" thesis that SMEs do not disappear in the course of income increases. Instead, they will grow along with LEs. As shown before, SMEs in Indonesia grew annually not only in output (see Figs. 1 or 2) but also in number of units (see Table 1). At least in the Indonesian case, there are three conditions that make SMEs able to stay in business or even to grow. Creating a niche market is the first and most important one. Thus, they do not compete directly with LEs. In other words, differentiated products are their key to survival. The second condition is the fact that SME activities are a very important source of income for a large portion of the population. This suggests that, as long as there is poverty, even though income per capita is high, SMEs will survive. The third one is that, since the 1980s, the business linkages in various forms including subcontracting between SMEs and LEs have become increasingly important compared with competition.

A second aspect of this study highlights the importance of government supports on SME growth. This does not say, however, that direct interventions (for instance, specially designed SME credit schemes) are more important than indirect ones (for instance, in terms of development of infrastructure and creating a business-friendly environment) for the growth of SMEs. In many cases, subsidized credit accompanied by appropriate public policies, which make it easier for SMEs to distribute and market their output and to buy their raw materials, is much more effective than introducing too many special supporting schemes for SME within a distorted market.

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