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# Development of Micro, Small and Medium Enterprises and Their Constraints:
## A Story from Indonesia

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**Abstract:** The main aim of this paper is to discuss recent development of micro, small and medium enterprises (MSMEs) and their current problems in Indonesia, based on analysis of secondary data on their performance focusing on their contribution to gross domestic product (GDP) and productivity, and their constraints. It shows that their GDP share is larger than that of large enterprises (LEs). But it is mainly because their number is huge, while their productivity is low. Their main constraints are mainly high cost of raw materials, marketing difficulties, and lack of capital.

**Abstrak:** Tujuan utama tulisan ini adalah untuk membahas perkembangan terakhir dari usaha mikro, kecil dan menengah (UMKM) di Indonesia dan masalah-masalah saat ini yang dialami oleh kelompok usaha tersebut. Pembahasannya didasarkan pada analisis data sekunder mengenai kinerjanya dengan memfokuskan pada kontribusinya terhadap produk domestik bruto (PDB) dan produktivitas serta kendala-kendalanya. Tulisan ini menunjukkan bahwa pangsa PDB dari UMKM lebih besar dbandingkan dari usaha besar (UB), tetapi hal itu lebih disebabkan oleh jumlah UMKM yang sangat banyak, sedangkan produktivitasnya rendah. Kendala-kendala utamanya adalah mahalnya bahan baku, kesulitan pemasaran, dan keterbatasan modal .

*Keywords:* constraints; gross domestic product (GDP); micro, small and medium enterprises; poverty; productivity

# Introduction

In Asian developing countries, micro, small and medium enterprises (MSMEs) have made significant contributions over the years measured in terms of their shares especially in: (a) number of enterprises; (b) employment generation; (c) production and value added; (d) aggregate output or gross domestic product (GDP); (e) number of enterprises set up by women entrepreneurs; and (f) regional dispersal of industry. According to Narain (2003), the contributions of these enterprises are vital as they: (a) make up between 80 and 90 per cent of all enterprises; (b) provide over 60 per cent of the private sector jobs; (c) generate between 50 and 80 per cent of total employment; (d) contribute about 50 per cent of sales or value added; (e) share about 30 per cent of direct total exports. In large countries like India, China and Indonesia, the growth of MSMEs is also considered very important due to their potential contributions to employment creation, improvement of income distribution, poverty reduction, export growth of manufactures, and development of manufacturing industry, rural economy, and entrepreneurship, especially among young educated individuals and women.

In Indonesia, the importance of these enterprises is especially because of their characteristics, which include the followings. *First*, their number is huge, and especially micro enterprises (MIEs) and small enterprises (SEs) are scattered widely throughout rural areas and therefore they may have a special 'local' significance for the rural economy; while medium enterprises (MEs) are concentrated in urban areas. *Second*, as being populated largely by firms that have considerable potential for employment growth, the development or growth of these enterprises constitutes a significant element of policy to cre-

ate employment and to generate income and so to reduce poverty. *Third*, MSMEs use technologies that are in a general sense more 'appropria-te' as compared to modern technologies used by large enterprises (LEs) to factor proportions and local conditions in Indonesia; that is, many raw materials are locally available but capital, including human capital is very limited, especially in rural areas. *Fourth*, not only that the majority of MSMEs in Indonesia are located in rural areas, they are also mainly agriculturaly based and oriented activities. Therefore the Indonesian government efforts to support these enterprises are also an indirect way to support development in agriculture in the country. *Fifth*, they finance their operations overwhelmingly by personal savings of the owners, supplemented by gifts or loans from relatives or from local informal moneylen-ders, traders, input suppliers, and payments in advance from consumers. Based on this fact, there is another important role that to enterprises can play, namely, as a means to allocate rural savings that otherwise would be used for unproductive purposes. *Sixth*, although in general people in rural areas are poor or from the low-income group, many poor villagers are able to save and invest a small amount of capital either from their salaries as local civil servants or teachers or from their revenues as farmers; and they are willing to take risks in doing so. In this respect, MSMEs provide a good starting point for the mobilization of both villagers' talents as entrepreneurs and their capital; while, at the same time, rural MSMEs can function as an important sector providing an avenue for testing and developing rural entrepreneurial ability.

With the above background, the main aim of this paper is to discuss recent development of MSMEs and their current prob-

lems in Indonesia. Methodologically, as a descriptive analysis, this study is based on secondary data analysis and a review of key literature.

## Characteristics of MSMEs

In Indonesia, MSMEs are not a homogenous group, but different among subcategories. MEs and MIEs can be distinguished obviously from MEs by reference to their different characteristics in many aspects, such as formality or ways in doing business, market orientation, social-economic profiles of the owners/producers, nature of workers employed, adopted organization and management system, degree of mechanization (nature of production process), sources of main raw materials and capital, location, external relationships, and degree of women's involvement as entrepreneurs (Table 1).

Table 1. **Main Characteristics of MIEs, SEs, and MEs in Indonesia**.

| Aspect | MIEs | SEs | MEs |
|---|---|---|---|
| Formality | operate in informal sector, unregistered and pays no taxes | some operate in formal sector, registered & pay taxes | all operate in formal sector, registered and pay taxes |
| Location | Majority in rural areas/ villages | Many in urban areas/ cities | Mostly in urban areas/ cities |
| Organization and management | - run by the owner<br>- no internal labor division<br>- no formal management and accounting system (bookkeeping) | - run by the owner<br>- no labor division (majority)<br>-no formal management and accounting system (bookkeeping) (majority) | - many hire professional managers,<br>- many have labor division, formal organizational structure and formal accountting system (bookkeeping) |
| Nature of employment | majority use unpaid family members | some hired wage laborers | - all hired wage laborers<br>- some have formal recruitment system |
| Nature of production process | - degree of mechanization very low/ mostly manual<br>- level of technology very low | some use up-to-date machines | many have high degree of mechanization/access to modern technology |
| Market orientation | majority sell to local market and for low income consumers | - many sell to national market and export<br>- many serve also middle to high income group | - all sell to national market and many also export<br>- all serve middle and high-income consumers |

*Continued from Table 1*

| Aspect | MIEs | SEs | MEs |
|---|---|---|---|
| Social and economic profiles of owners | - low or uneducated<br>- from poor households<br>- main motivation: survival | - some have good education, and from non-poor households<br>- many have business/profit motivation | - majority have good education<br>- many are from wealthy families<br>- main motivation: profit |
| Sources of inputs | majority use local raw materials and use own money | - some import raw materials<br>-some have access to bank and other formal credit institutions | - many use imported raw materials<br>- majority have access to formal credit sources |
| External networks | majority have no access to government programs and no business linkages with LEs | many have good relations with government and have business linkages (such as subcontracting) with LEs (including MNCs/FDI) | - majority have good access to government programs<br>- many have business linkages with LEs (including MNCs/FDI) |
| Women entrepreneurs | ratio of female to male as entrepreneurs is high | ratio of female to male as entrepreneurs is high | ratio of female to male as entrepreneurs is low |

**Source:** Tambunan (2009a).

Sandee and ter Wingel (2002) examined the level of development of MSME in Indonesia, by focusing on MSME clusters in the manufacturing industry. From their observations, they classified manufacturing MSMEs clusters in Indonesia into four types according to their level of development (including level of entrepreneurship), each with its own characteristics (Table 2). *The first* type is called "artisinal". If the level of cluster development can be measured by the following scale: one (the lowest), two, three and four (the highest), then the level of cluster development of artisinal is in the category one. This type of clusters dominated clusters in Indonesia (roughly speaking more than 90%).

Altenburg and Mayer-Stamer (1999) also refer to such clusters as "survival" clusters of MIEs, as this type of cluster displays many characteristics of MIEs with level of productivity and wages being much lower than that of SEs and MEs. In these clusters the degree of inter-firm cooperation and specialization is very low, reflecting the lack of specialists in the local labor force as well as a fragile social fabric.

*The second type* is called "active" clusters, which are developed rapidly in terms of skill improvement, technological upgrading and successful penetration of domestic and export markets. The active clusters may still be artisanal in character, which still face qual-

Table 2. **Different Types of MSME Clusters in Indonesia**

| Type | Level of develpment | Characteristics |
|---|---|---|
| "Artisinal" | 1 | - mainly MIEs; -low productivity and wage; -stagnated (no market expansion; no accumulation of investment; no increase in production; no improvements in production methods, management, and organization; and no innovation); -local market (low-income consumers) oriented; -used primitive or obsolete tools and equipment; -many producers are illiterate and passive in marketing (producers have no idea about their market); -the role of middlemen/traders is dominant (producers are fully dependent on middlemen or trader for marketing); -very low degree of inter-firm cooperation and specialization (no vertical co-operations among enterprises); -no external networks with supporting organizations. |
| "Active" | 2 | - used higher skilled workers and better technology; -supplied national and export markets; -active in marketing; the degree of internal as well as external networks is high |
| "Dynamic" | 3 | - trade networks overseas are extensive; -internal heterogeneity within clusters in terms of size of enterprises, technology, and served market is more pronounced; -leading/pioneering firms played a decisive role. |
| "Advanced" | 4 | - the degree of inter-firm specialization and cooperation is high; -business networks between enterprises with suppliers of raw materials, components, equipment and other inputs, providers of business services, traders, distributors, and banks are well developed; -cooperation with local, regional or even national government, as well as with specialized training and research institutions such as universities is good; -many firms are export-oriented (mainly through trading houses or exporting companies). |

**Source:** Sandee and ter Wingel (2002)

ity-related problems and their markets are mainly local or domestic. Typical examples of these clusters are such as roof tiles clusters, metal-casting clusters, shuttle-cock clusters, shoe clusters and brass-handicraft clusters. In these clusters, some enterprises start to influence the development trajectory of the clusters, and some enterprises produce for export through middlemen or traders or trading houses from outside the clusters.

*The third type* is called "dynamic" clusters as they are characetrized by, among others, expanding exports. Examples of the third type are textile weaving clusters in Majalaya and Pekalongan, furniture cluster in Jepara, wig and hair accessories cluster in Purbalingga, and handicraft cluster in Kasongan. Many producers in these clusters have developed extensive trade networks not only domestic, but also overseas. Internal heterogeneity within clusters in terms of size, technology, and served market is more pronounced. Inter-firm specialization and cooperation among firms inside clusters are well developed. One of the most striking features of this type (and also to a certain extent in the "active" clusters) may be the decisive role of leading/pioneering firms, usually larger and faster growing firms, to manage a large and differentiated set of relationships with firms and institutions within and outside clusters. Some leading firms have utilized cutting-edge technologies in production (Supratikno, 2002a,b).

*The fourth type* is called the 'advanced' clusters, and in this type of clusters all enterprises are mostly MEs. The key characteristics of these clusters are that many of the enterprises are export-oriented and they have strong inter-firm specialization (see further Table 2).

## Performance of MSMEs

### Number of Enterprises and Total Employment

Historically, Indonesian MSMEs have always been the main players in domestic economic activities, accounting for more than 99 percent of all existing firms across sectors (Table 3) and providing employment for over 90 percent of the country's workforce (Table 4), mostly women and the youth. The majority of MSMEs are MIEs, which are dominated by self-employment enterprises without wage-paid workers. In 2009, for instance, the share of these tiny enterprises in total MSMEs or in total MSMEs plus LEs is about 98.88 percent. They are scattered widely throughout the rural areas, and, therefore, are likely to play an important role in helping to develop the skills of villagers, particularly women, as entrepreneurs. However, many MIEs are established by poor households or individuals who cannot find better job opportunities elsewhere, either as their primary or secondary (supplementary) source of income. Therefore, the presence of many MIEs in Indonesia is considered as a result of current unemployment or poverty problem; not seen as a reflection of entrepreneurship spirit (Tambunan, 2006; 2008; 2009a,b).

The majority of MSMEs in Indonesia are involved in agriculture. Within the group, MIEs are mostly agricultural-oriented. As can be seen in Table 5, about 52 percent of total MIEs were found in the sector, compared to only 0.2 percent and 4.2 percent with respect to, respectively, SEs and MEs. The second important sector for MSMEs is trade, hotel and restaurants. In the manufacturing sector, MSMEs are traditionally not so strong as compared to LEs. This structure of MSMEs by sector is, however, not an Indonesian unique. It is a key feature of this category of enterprises in developing countries, especially in countries where the level of industrialization is relatively low.

Table 3. **Total Enterprises by Size Category in All Sectors in Indonesia (in thousand units)**

| Size Category | 2000 | 2001 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| MIEs & SEs | 39,705 | 39,883.1 | 43,372.9 | 44,684.4 | 47,006.9 |
| MEs | 78.8 | 80.97 | 87.4 | 93.04 | 95.9 |
| LEs | 5.7 | 5.9 | 6.5 | 6.7 | 6.8 |
| Total | 39,789.7 | 39,969.9 | 43,466.8 | 44,784.1 | 47,109.6 |

| Size Category | 2006 | 2007 | 2008 | 2009 | |
|---|---|---|---|---|---|
| MIEs & SEs | 48,822.9 | 47,720.3 | 52,327.9 | 52,723.5 | |
| MEs | 106.7 | 120.3 | 39.7 | 41.1 | |
| LEs | 7.2 | 4.5 | 4.4 | 4.7 | |
| Total | 48,936.8 | 49,845.0 | 52,262.0 | 52,769.3 | |

**Source:** State Ministry for Cooperative and SMEs (www.depkop.go.id) and Indonesian Central Bureau of Statistics (BPS)  (www.bps.go.id)

Table 4. **Total Employment by Size Category and Sector in Indonesia, 2008 (Workers)\***

| | MIEs | SEs | MEs | LEs | Total |
|---|---|---|---|---|---|
| Agriculture | 41,749,303 | 66,780 | 643,981 | 229,571 | 42,689,635 |
| Mining | 591,120 | 28,762 | 21,581 | 78,847 | 720,310 |
| Manufacture | 7,853,435 | 1,145,066 | 1,464,915 | 1,898,674 | 12,362,090 |
| Elect, gas and water supply | 51,583 | 19,917 | 31,036 | 54,233 | 156,769 |
| Construction | 576,783 | 137,555 | 51,757 | 31,016 | 797,111 |
| Trade, hotel and restaurant | 22,168,835 | 1,672,351 | 472,876 | 179,895 | 24,493,957 |
| Transport and communication | 3,496,493 | 145,336 | 11,854 | 98,191 | 3,851,874 |
| Finance, rent and service | 2,063,747 | 313,921 | 279,877 | 156,064 | 2,813,609 |
| Services | 5,096,412 | 462,683 | 178,311 | 49,723 | 5,787,129 |
| Total | 83,647,711 | 3,992,371 | 3,256,188 | 2,776,214 | 93,672,484 |

**Note:** * data at sectoral level are not yet available for 2009.

**Source:** StateMinistry for Cooperative and SMEs (www.depkop.go.id) and BPS (www.bps.go.id)

**Table 5. Structure of Enterprises by Size and Sector in Indonesia, 2008 (units)\***

|  | MIEs | SEs | MEs | LEs | Total |
|---|---|---|---|---|---|
| Agriculture | 26,398,113 | 1,079 | 1,677 | 242 | 26,401,111 |
|  | (52.07) | (0.21) | (4.23) | (5.54) | (51.50) |
| Mining | 258,974 | 2,107 | 260 | 80 | 261,421 |
|  | (0.5) | (0.41) | (0.66) | (1.83) | (0.51) |
| Manufacture | 3,176,471 | 53,458 | 8,182 | 1,309 | 3,239,420 |
|  | (6.27) | (10.28) | (20.63) | (29.94) | (6.32) |
| Elect, gas & water supply | 10,756 | 551 | 315 | 125 | 11,747 |
|  | (0.02) | (0.11) | (0.79) | (2.86) | (0.02) |
| Construction | 159,883 | 12,622 | 1,854 | 245 | 174,604 |
|  | (0.32) | (2.43) | (4.68) | (5.60) | (0.34) |
| Trade, hotel & restaurant | 14,387,690 | 382,084 | 20,176 | 1,256 | 14,791,206 |
|  | (28.38) | (73.45) | (50.88) | (28.73) | (28.85) |
| Transport & communication | 3,186,181 | 17,420 | 1,424 | 319 | 3,205,344 |
|  | (6.29) | (3.35) | (3.59) | (7.30) | (6.25) |
| Finance, rent & service | 970,163 | 23,375 | 3,973 | 599 | 998,110 |
|  | (1.91) | (4.49) | (10.02) | (13.70) | (1.95) |
| Services | 2,149,428 | 27,525 | 1,796 | 197 | 2,178,946 |
|  | (4.24) | (5.29) | (4.53) | (4.51) | (4.25) |
| Total | 50,697,659 | 520,221 | 39,657 | 4,372 | 51,261,909 |
| (percentage) | (100.00) | (100.00) | (100.00) | (100.00) |  |

**Note:** * data at sectoral level are not yet available for 2009.

**Source:** State Ministry for Cooperative and SMEs (www.depkop.go.id) and BPS (www.bps.go.id)

## GDP Contribution

With respect to their contributions to the formation of gross domestic product (GDP), as shown in Figure 1, the GDP share of MSMEs as a group has always been higher that that of LEs at around 58 percent (at constant prices) since 2006. However, it varies by sub-category: MIEs have always higher GDP share than those of SEs and MEs. However, it is not because the first sub-category of enterprises has higher productivity. It is mainly because the number of units of this sub-category is much larger than that of SEs and MEs.

Next, Table 6 presents data on GDP contributions of MSMEs and, as a comparison, LEs by sector. As can be seen, there are two interesting facts from this table. *First*, the GDP share of MSMEs varies by sector. Only in their key sectors, i.e. agriculture and trade their GDP shares are relatively high. *Second*, in sectors where huge capital, advanced technologies and high skilled workers are crucial such as mining, manufacturing, construction, and electricity, gas and clean water supply, the GDP shares of MSMEs are always much lower than that of LEs.

Figure 1. **GDP Shares of MSMEs and LEs in Indonesia (%)**
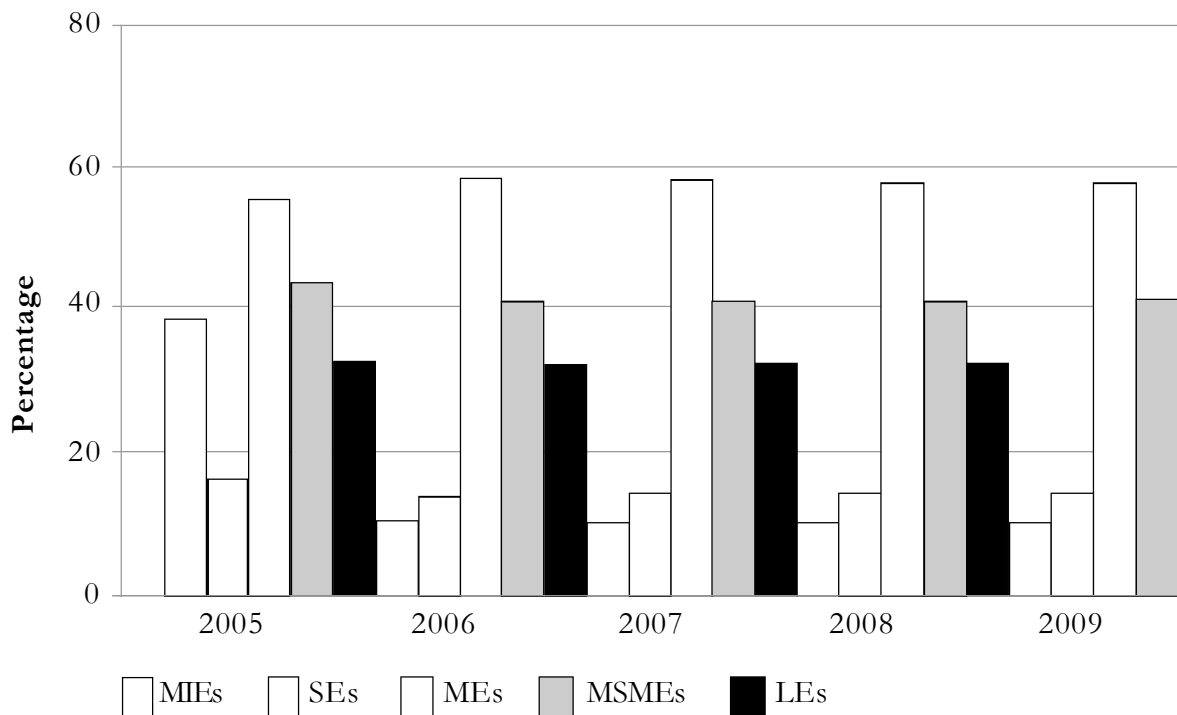


***Source:*** State Ministry for Cooperative and SMEs (www.depkop.go.id) and BPS (www.bps.go.id)

Table 6: **National GDP by Size of Enterprise and Sector in Indonesia (Rp trillion)**∗

| Sector | Size of Enterprises | GDP share (%) at Constant Prices (2000) | | |
|---|---|---|---|---|
| | | **2006** | **2007** | **2008** |
| Agriculture | MSME | 14.00 | 14.26 | 13.65 |
| | LE | 0.60 | 0.57 | 0.58 |
| Mining | MSME | 1.02 | 1.15 | 1.09 |
| | LE | 7.01 | 7.20 | 7.54 |
| Manufacture | MSME | 6.99 | 7.81 | 8.62 |
| | LE | 19.85 | 19.29 | 19.30 |
| Elect, gas & water supply | MSME | 0.06 | 0.06 | 0.06 |
| | LE | 0.60 | 0.63 | 0.69 |
| Construction | MSME | 4.04 | 4.39 | 2.48 |
| | LE | 2.04 | 2.06 | 4.07 |
| Trade, hotel & restaurant | MSME | 17.00 | 16.60 | 17.44 |
| | LE | 0.65 | 0.66 | 0.74 |
| Transport & communication. | MSME | 3.32 | 3.29 | 3.43 |
| | LE | 3.45 | 3.89 | 4.89 |
| Finance, rent & service | MSME | 7.20 | 5.96 | 6.33 |
| | LE | 3.32 | 3.25 | 3.62 |
| Other services | MSME | 4.86 | 4.92 | 5.23 |
| | LE | 4.00 | 4.01 | 0.25 |

**Note**: ∗ data at sectoral level are not yet available.
*Source*: State Ministry for Cooperative and SMEs (www.depkop.go.id) and BPS (www.bps.go.id)

Although in different sectors or subsectors the MSMEs may have different growth rates of output, in total, their annual growth rates of output are always higher than that of LEs. Within the enterprises, however, the output growth rate of SEs and MIEs together is always lower than that of MEs, although the gap tends to become smaller by year during the period reviewed (Figure 2). Among many other possible explanations, the difference can be explained by the fact that in comparison with MIEs and SEs, MEs are more modern and well organized units of production. They also use advanced technologies and employ high skilled workers. Whereas, MIEs and SEs are generally unorganized economic activities and they use mostly unappropriate technologies, adopt promitive ways of doing production/businesses, and employ unskilled workers, including unpaid family members (especially in MIEs). So, within the MSMEs, MEs have higher growth capability than their smaller counterparts.

Figure 2. **Output Growth Rate (at constant prices) by Size of Enterprise in Indonesia (%)**
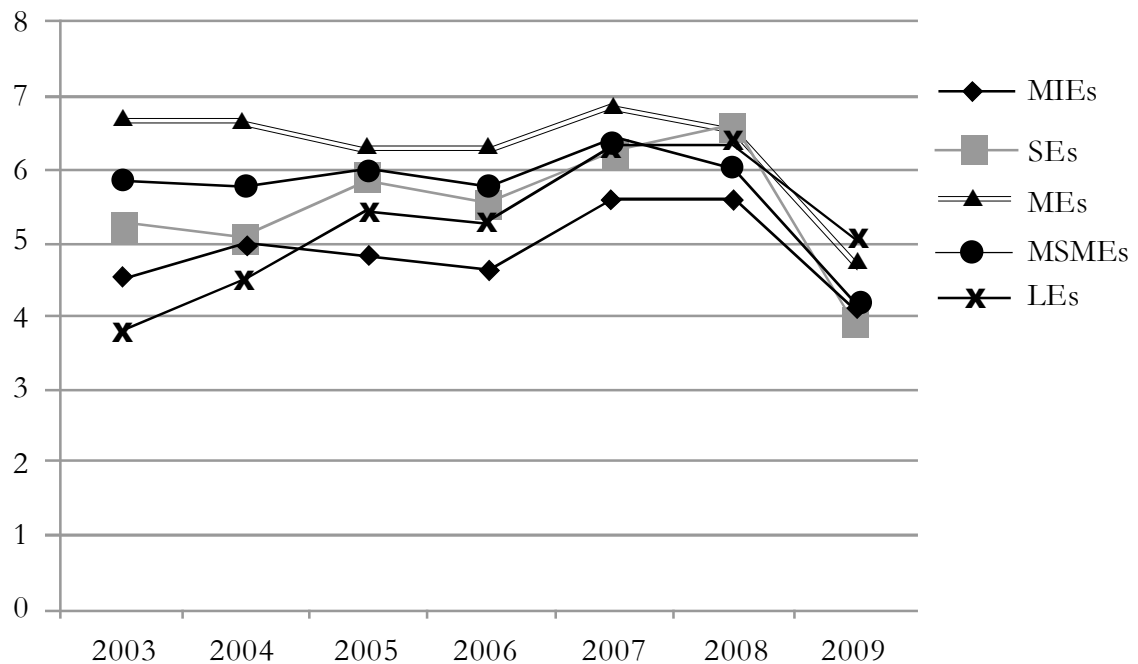


***Source:*** State Ministry for Cooperative and SMEs (www.depkop.go.id) and BPS (www.bps.go.id)

Figure 3. **GDP Growth Contributions by Size of Enterprisem in Indonesia (%)**
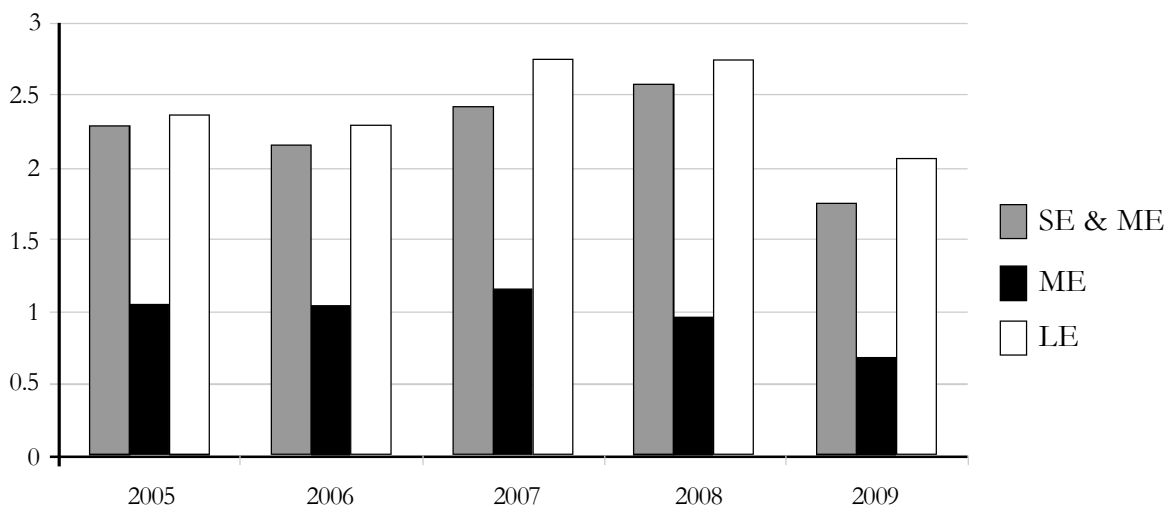


***Source:*** State Ministry for Cooperative and SMEs (www.depkop.go.id) and BPS (www.bps.go.id)

MSMEs' contribution to the annual GDP growth is also higher than that of LEs (Figure 3). In 2005, the national GDP growth rate was 5.69 per cent, with 3.33 per cent originated from MSMEs, compared to 2.36 per cent from LEs. In 2007, the MSMEs' share in the GDP growth was 3.57 per cent, and slighly declined to 3.54 percent in 2008. Within the MSMEs, the total contributions of MIEs and SEs to the GDP growth were higher than that of MEs. In 2007, from the GDP growth rate at 6.32 per cent, the total contribution from MIEs and SEs was about 2.42 per cent, compared to 1.15 per cent from MEs. In 2008 the shares were 2.58 per cent and 0.96 per cent, respectively. Whereas, in 2009, the value of GDP growth was 90,354.3 billions rupiah, of which almost 39 per cent originated from MIEs and SEs, 15,4 percent from MEs and about 46 percent contributed by LEs. In percentage, the GDP growth was 4.52 percent and the contributions of MIEs and SEs as a group, MEs and LEs were, respectively, 1.76 percent, 0,69 percent, and 2,07 percent. The difference is mainly due to the fact that the total units of MIEs and SEs are very huge as compared to that of MEs which were only slighly more than 39 thousand units.

As a comparison, Table 7 provides data on MSMEs in some other Asian countries. Although official data on MSMEs in these countries are limited, some studies (e.g. Goh, 2007, ADB, 2009, Tambunan, 2009b, and UN-ESCAP, 2009), on which the table is based, managed to make estimates of actual contributions of the enterprises in the particular countries' economy. As can be seen, in all countries studied where estimates are available, MSMEs reveal as the majority in number of units, employment creation and value added generation. With respect to GDP contribution, MSMEs in Cambodia have the highest share, followed by those in China and Indonesia. In regard to employment creation, Cambodia and Indonesia are both in top position as their MSMEs contribute almost 100 per cent of total employment creation.

Table 7. **MSMEs' Contributions to Total Enterprises, Employment and GDP in Selected Asian Developing Countries, 2000-2008 (%)**

| | **China** | **India** | **Indonesia** | **Malaysia** | **Philippines** |
|---|---|---|---|---|---|
| Number of unit | 99.7 | 95.0 | 99.9 | 94.4 | 99.6 |
| Employment | 74.0 | 80.0 | 99.0 | 40.4 | 69.1 |
| GDP | 60.0 | 40.0 | 58.17 | 26.0 | 32.0 |

| | **Thailand** | **Vietnam** | **Pakistan** | **Cambodia** | |
|---|---|---|---|---|---|
| Number of unit | 98.0 | 96.8 | Na | Na | |
| Employment | 55.8 | 96.8 | 90.0 | 99.0 | |
| GDP | 47.0 | 39.0 | 40.0 | 76.7 | |

***Note:*** na=data not available
***Sources:*** Goh (2007), ADB (2009), UN-ESCAP (2009), Tambunan (2009b).

## Productivity

As already shown before, the GDP share of MSMEs or their contribution to the GDP growth is higher than that of LEs. However, it does not means autoomtically that the level of productivity in MSMEs is higher than that in LEs. On the contrary, as one key characteristic of MSMEs in Indonesia, as in developing countries in general, the level of productivity in these enterprises is generaly low. As the level of productivity goes along with the level of efficiency in using inputs or factors of production, low productivity means also high production costs and thus high price per unit of output, which means that the enterprises do not have price competitiveness in comparison with LEs. In fact that most products offered by MSMEs have lower prices than those produced by LEs and imports is mainly because their quality is inferior to that of LEs and imports.

As a simple approach, the ratio of total output value or total value added to total workers employed can be used to measure the labour productivity in MSMEs. Based on official data, as can be seen in Figure 4, the value added-labour ratio in these enterprises is much lower than that in their larger counterparts. Within the MSME group, the ratio varies, however, with lower in MIEs and SEs than in MEs.

Next, Table 8 presents labor productivity in MIEs and SEs in the manufacturing industry by selected important subsectors/industries based on the ratio of total output value or value added to total workers. As can be seen, the level varies by subsector. The differences are influenced by a number of factors which can be grouped into two categories, namely: demand-side factors: e.g. market size which determined by per capita real income and population, and competition

Figure 4. **Labor Productivity of Enterprises by Size in Indonesia (Rp/Worker)**
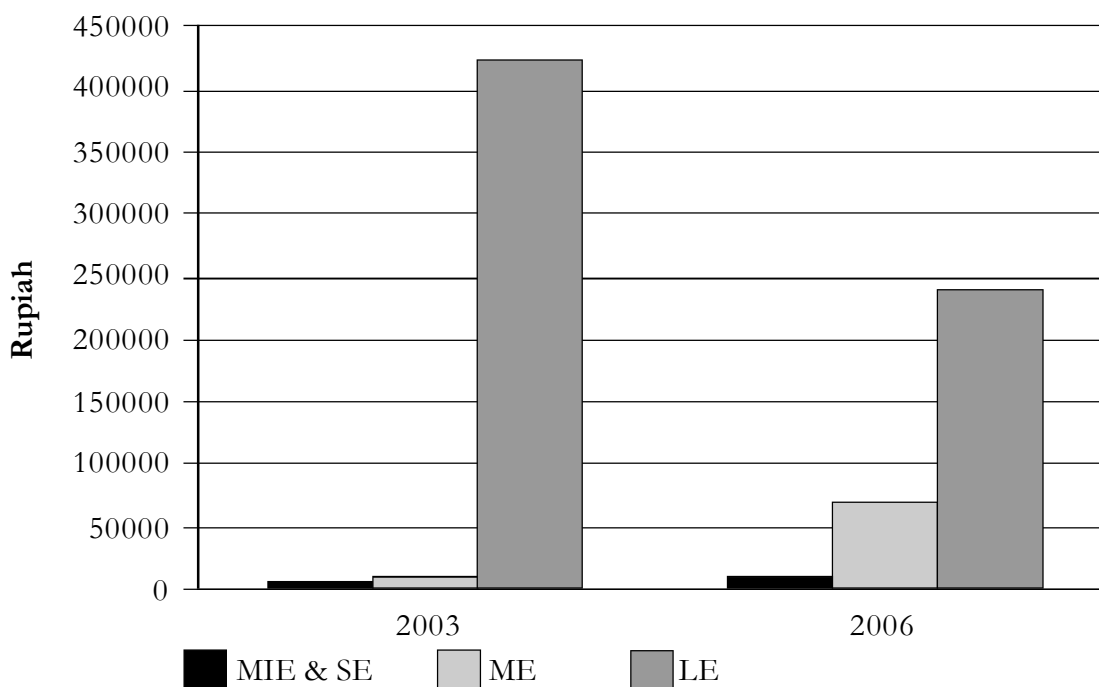


*Source:* BPS (www.bps.go.id)

from LEs or imports, and supply-side factors, e.g. technology, skills, and other production resources. Different industries have differences with those factors. For instance, food processing industries in Indonesia have the largest market size compared to, for instance,

assembling automotive industries. Thus, enterprises in the first group of industry may face different challenges, opportunities as well as constraints than their counterparts in the second one, and this may influence their productivity.

Table 8. **Labor Productivity in MIEs and SEs in the Manufacturing Industry by Selected Industries in Indonesia (Rp 000)**

| Industry | Size | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|
| Food and beverages | MIEs | 7987 | 8794 | 11476 | 12204 | 14537 | 18786 |
| | SEs | 26772 | 26618 | 21196 | 27714 | 47644 | 61222 |
| | MIEs&SEs | 11860 | 12341 | 13803 | 15748 | 22389 | 27952 |
| Textile | MIEs | 3609 | 3304 | 5240 | 5702 | 5828 | 8724 |
| | SEs | 13116 | 20399 | 17783 | 22912 | 21288 | 25006 |
| | MIEs&SEs | 6318 | 8196 | 7502 | 10029 | 9518 | 14192 |
| Garment | MIEs | 12926 | 16713 | 21138 | 30452 | 27041 | 25933 |
| | SEs | 25205 | 22442 | 32300 | 31969 | 36522 | 43205 |
| | MIEs&SEs | 21664 | 20498 | 28530 | 31500 | 34273 | 38095 |
| Leather | MIEs | 16271 | 20060 | 24489 | 24283 | 26322 | 31428 |
| | SEs | 26529 | 28879 | 24174 | 34110 | 42267 | 46347 |
| | MIEs&SEs | 22383 | 24265 | 24314 | 30378 | 35238 | 40699 |
| Wood | MIEs | 3641 | 4108 | 5074 | 5901 | 6178 | 11631 |
| | SEs | 19181 | 40191 | 12981 | 21290 | 34983 | 42149 |
| | MIEs&SEs | 5510 | 8230 | 6154 | 7899 | 9709 | 16816 |
| Paper | MIEs | 13182 | 22674 | 4632 | 18805 | 19982 | 24783 |
| | SEs | 12913 | 130469 | 49792 | 38878 | 14014 | 43426 |
| | MIEs&SEs | 13004 | 57557 | 13999 | 29378 | 17354 | 35117 |
| Chemical | MIEs | 6072 | 19490 | 9877 | 36051 | 17249 | 21500 |
| | SEs | 126699 | 38128 | 13431 | 18001 | 22363 | 405801 |
| | MIEs&SEs | 26702 | 28740 | 11784 | 26856 | 20048 | 183299 |
| Basic metal | MIEs | 30866 | 18513 | 21557 | 18076 | 37513 | 99964 |
| | SEs | 101798 | 25338 | 13030 | 50121 | 58559 | 126596 |
| | MIEs&SEs | 62393 | 21448 | 16351 | 32188 | 50733 | 117041 |
| Machines and their tools | MIEs | 15746 | 16912 | 21665 | 14772 | 24050 | 30781 |
| | SEs | 20655 | 29324 | 35036 | 23461 | 18754 | 72584 |
| | MIEs&SEs | 17470 | 22468 | 27059 | 20549 | 22291 | 55229 |

*Continued from Table 8*

| Industry | Size | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|
| Electrical machines | MIEs | - | - | - | 5216 | 6722 | 34196 |
| and their tools | SEs | 213333 | - | - | 23520 | 120615 | 84707 |
| | MIEs&SEs | 213333 | - | - | 21733 | 103839 | 72451 |
| Radio, television, | MIEs | - | - | - | 2033 | - | 78627 |
| communication and | SEs | - | - | - | 46080 | 18259 | 329963 |
| their tools | MIEs&SEs | - | - | - | 37236 | 18259 | 249545 |
| Vehicles | MIEs | 22303 | - | 14533 | 28028 | 57626 | 57013 |
| | SEs | 25035 | - | - | 43940 | 53882 | 71899 |
| | MIEs&SEs | 23898 | - | 14533 | 37491 | 54606 | 66517 |
| Other | MIEs | 15079 | 27975 | 24329 | 24859 | 65384 | 58655 |
| transportation | SEs | 37787 | 14985 | 8769 | 67134 | 108934 | 109451 |
| means | MIEs&SEs | 24089 | 23752 | 19422 | 45799 | 81459 | 78455 |
| Furniture and | MIEs | 16686 | 12075 | 12053 | 22795 | 28613 | 35331 |
| other manufacturing | SEs | 18104 | 31596 | 33078 | 30641 | 37320 | 40843 |
| | MIEs&SEs | 17087 | 17495 | 19323 | 26148 | 31790 | 37475 |

*Source:* BPS (www.bps.go.id)

Differences in productivity are not only evident between MSMEs and LEs, but also within the MSMEs themselves, the level of labour productivity in MIEs is lower than that in SEs, and that in the latter sub-category is generally also below that in MEs. This may suggest that there is a positive correlation between the level of productivity and the size of enterprises. It means that the larger the size is, the more complex is the production proces and organisation, the more skilled workers and better technologies are needed which generate higher productivity. Also, since MIEs are mainly in the informal sector and these most traditional enterprises have the lowest level of productivity within the MSMEs, it can be said that there is a correlation between the level of formality and the level of productivity.

Based on country data, a 2009 report from the Asian Development Bank (ADB, 2009) shows labour productivity across MIEs and SEs in selected Asian developing countries. As can be seen in Figure 5, in all countries covered, MIEs have much lower labor productivity than that in SEs. There are two interesting facts from this figure. *First*, the gap in labour productivity between the two subcategories of MSMEs varies by country, with Thailand as largest one. *Second*, MIEs in Thailand has the highest labour productivity than those in Indonesia, the Philippines and India. If the data used by this ADB report are telling the true, it can be concluded that MIEs in this country are more efficient and hence more competitive than their counterparts in the other three countries.

# Current Constraint

## *Types of Constraints*

MSMEs (especially MIEs and SEs) are often hampered by many, including institutional constraints to growth in size and to become viable/efficient larger enterprises. The constraints may differ from region to region, between rural and urban areas, between sectors and subsectors, or between individual enterprises within the same sector or subsector or region. However, there is a number of constraints common to all MSMEs, which include the lack of fund to finance their working and investment capitals, human resource with high skills, advanced technologies and up-date and comprehensive information; difficulties in procuring raw materials and other required inputs, marketing and distribution; high transportation costs; problems caused by cumbersome and costly bureaucratic procedures, especially in getting the required licenses; and policies and regulations that generate market distortions. These are often said in the literature as external constraints to MSME growth.[1]

Based on government data from a national survey (BPS) on MIEs and SEs in the manufacturing industry, Table 9 highlights the main constraints faced by MIEs and SEs in the manufacturing industry in Indonesia. Sur-prisingly, data in this table does not suggest that all surveyed producers consider the lack of capital as their most serious business constraints. Those facing capital constraints are primarily MIEs that are located in the rural or backward areas where the access to bank credit or various existing government-sponsored SME credit schemes such as the well-known KUR (*Kredit Usaha Rakyat*) scheme is either minimal or absent. Consequently, these MIEs depend fully on their savings, funding from other relatives and credit from informal lenders for financing their daily business operations. It can be seen in Table 10 which shows that the majority of the sampled producers use their own money to finance their businesses, with the share of 82.41 per cent and 68.85 per cent of the total sampled MIEs and SEs, respectively. Only very few producers borrow money to finance their business, about approximately 2.9 per cent and almost 1.8 per cent of the total sampled MIEs and SEs, respectively. They borrow money not only from bank or other formal non-bank financial institutions, but also from informal sources. Many of them borrow money from various sources (Table 11). The reason for such diversification in sources of capital is mainly because formal credits they received are often not enough, so they also borrow money from their relatives or friends.[2]

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[1] See for instance, Tambunan (2009a,b) for a survey of literature on this particular issue.

[2] There are various reasons why most of MIEs and SEs in Indonesia have limited or no access to formal credit, such as lack of valuable assets to be used as collaterals, their unfeasible businesses or not market promising from the banks perspective, and their informal way of doing businesses (i.e. not well organized activities or businesses without a well developed structure of organization and a good management system with good bookkeeping). MSME finance in Indonesia, however, had some institutional development successes during the New Order era until the 1997/98 Asian financial crisis. But, the financial institutions were less efficient and many of them were financially and structurally weak, which was manifest in high transactions costs and limits on their market penetration. As a result, during that pre-1997/98 crisis period, the overwhelming number of MIE and SEs, especially outside important cities and in other islands beyond Java was not served by banks and other financial institutions including those which were supposed to serve them.

Table 9. **Number of SEs and MIEs in the Manufacturing Industry by Main Obstacles in Indonesia, 2005**

|  | SEs | MIEs | Total |
|---|---|---|---|
| Have no serious obstacles | 46,485 | 627,650 | 674,135 |
| Have serious obstacles: | 192,097 | 1,862,468 | 2,054,565 |
| -Lack or high prices of raw materials | 20,362 | 400,915 | 421,277 |
| -Marketing difficulties | 77,175 | 552,231 | 629,406 |
| -Lack of capital | 71,001 | 643,628 | 714,629 |
| -Transportation/distribution obstacles | 5,027 | 49,918 | 54,945 |
| -High price or short supply of energy | 4,605 | 50,815 | 55,420 |
| -High labor cost | 2,335 | 14,315 | 16,650 |
| -Other main constraints | 11,592 | 150,646 | 162,238 |
| **Total** | **238,582** | **2,490,118** | **2,728,700** |

*Source:* Tambunan (2008).

Table 10. **Sources of Capital of MIEs and SEs in the Manufacturing Industry in Indonesia, 2005 (% of total sampled enterprises)**

| Source of Capital | MIEs | SEs |
|---|---|---|
| Own Money | 82.41 | 68.85 |
| Borrow | 2.86 | 1.75 |
| Own money and borrow | 14.73 | 29.40 |
| Total | 100 | 100 |

*Source:* BPS (www.bps.go.id)

Table 11. **The Origin of Loans in Manufacturing MIEs and SEs in Indonesia, 2005 (% of total sampled enterprises)**

| Origin of Loan | MIEs | SEs |
|---|---|---|
| **Formal Sources** | | |
| Bank | 54.54 | 15.62 |
| Cooperative | 5.57 | 3.83 |
| Ventura capital | 1.63 | 1.34 |
| Non-bank institutions | 4.75 | 3.06 |
| **Informal Sources** | | |
| Family | 12.61 | 11.21 |
| Friends | 23.64 | 44.35 |
| Others | 14.24 | 28.35 |

*Source:* BPS (www.bps.go.id)

Other main constraints stated in Table 9 include cumbersome and onerous business regulations and restrictions. Basically, these problems which hamper business activities in Indonesia reflect the poor governance in the country. One of the most egregious restrictive regulations, which hampered bona fide business in Indonesia, including MSMEs, was the policy-generated barriers to domestic competition and trade. These policy-generated barriers included the barriers to interregional and inter-island trade and proliferation of several state and private monopolies which proliferated during the New Order era (1966-1998). 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 companies (SOCs) in certain sectors and preferential treatment for selected favored LEs. However, shortly after the 1997/98 Asian financial crisis, with the help of the International Monetary Fund (IMF), Indonesia started its large economic reforms in almost all sectors and dealing with almost all aspects of daily business, including reducing the dominance of SOCs in the economy.

Another example of bad government regulations for MSMEs was the case of furniture producers in Central Java. In Cirebon, for instance, the export of wood and rattan furniture has been declined since 2005. One cause of that was the regulation issued in 2005 by the Ministry of Industry and the Ministry of Trade which allowed free export for unprocessed wood and rattan. This decision did not only cause scarcity problem of unprocessed wood and rattan in local market for domestic furniture producers, but as such key raw materials were also exported to highly competitive countries in wood and rattan furniture like China and Vietnam, Indonesian furniture producers faced more difficulties in competition with China's and Vietnam's own made furniture, including rattan furniture al-

though rattan is only available in Indonesia. Only recently, after aware of that problem, the government has replaced the 2005 regulation with a new one which forbids exports of raw wood and rattan.

Although the BPS survey data shown in Table 9 seem to suggest that such enterprises do not have problems with technology and skills. However, in reality, as one important characteristic of MIEs and SEs in Indonesia (as in many other developing countries), which makes them different from their counterparts in developed countries, they employ mostly low-skilled workers and use traditional/old (many often own made/modified) technologies; although the degree of skills and technology used varies by sector or groups of industry, depending on basic skills or technologies required. Even in the literature, it is often stated that lack of skills or technology

is among serious constraints facing MSMEs, in developing countries. [3]

With respect to skill, Table 12 presents the level of formal education of the owners/producers of MSMEs in the manufacturing industry. As can be seen, of the total sampled MSMEs in the sector, only about 2.20 per cent have university degree; although the rate varies between MIEs, SEs and MEs. This picture is in line with the fact that on average the education level of the working population in Indonesia is also low. Data from the National Labour Survey show that until now inspite of the annual increase in the proportion of population with university or higher education degree, the majority of working population in the country are still from those with primary up to secondary schools only.

Table 12. **Level of Education of the Owners of/Entrepreneurs in MSMEs in the Manufacturing Industry in Indonesia, 2006 (%)**

| Level of Education | Scale | | |
| --- | --- | --- | --- |
| | MIE & SE | ME | MSME |
| Not completed primary education | 12.20 | 7.97 | 16.09 |
| Completed primary education | 28.87 | 21.29 | 31.30 |
| Completed first level secondary education | 23.04 | 19.58 | 22.10 |
| Completed second level secondary education | 30.42 | 37.54 | 26.87 |
| Completed Academic level education (D I/II/III) | 1.96 | 3.53 | 1.44 |
| University diploma | 3.51 | 10.09 | 2.20 |
| Total | 100.00 | 100.00 | 100.00 |

*Source:* BPS (www.bps.go.id)

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[3] See e.g. Tambunan (2009a,b) for more discussion on this particular issue.

## *Regional Comparison*

As a regional comparison, based on recent, though limited, information from e.g. government reports, national surveys and case studies, Tambunan (2008) managed to make a list of main constraints common to MSMEs in other Asian developing countries (with " sign), although the degree of the importance of each of the constraints varies by country, depending on differences in many aspects such as the level of MSMEs development; the nature and the degree of economic development; public policies and facilities; and of course the nature and the intensity of government interventions towards MSMEs. As presented in Table 13, the constraints include various problems in the procurement of raw materials and other required inputs such as price instability, unsustained supply (stocks are often not available), and inferior quality; difficulties in markting such as high costs of marketing, unfair competitions and monopoly practices by LEs, cheaper prices of imported competitive items, and spaces for them to sell their products are often limited by government regulations; lack of capital; high costs of energy, particularly high prices of electricity and fuel; lack of information especially in regard to market, technology, and price information; lack of modern technologies and human resource with high skills; lack of infrastructures, especially for MSMEs located in rural areas; tax system and tariffs which are often in favour of large and modern businesses; inflation either originated from the demand-side ('demand-pull') or the supply-side ('cost-push'); market distortions caused by regulations, restrictions, legal framework, law and order, and discrimination policies in favor of LEs; and labour issues like minimum wage regulations, social securities, and other restrictive labour market regulations.

Table 13. **Most Important Constraints Facing MSMEs in Asian Developing Countries**

| Country | Main Constraints | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Raw Materials | Marketing | Capital | Energy | Information | Technology & Skill | Infrastructure | Tax | Inflation | Market Distortions | Labor Issues*** |
| Indonesia | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | |
| Philippines | | ✓ | ✓ | | | ✓ | | | | | |
| Viet Nam | | | ✓ | | | ✓ | ✓ | | | ✓ | |
| Cambodia | | | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | |
| Lao PDR | ✓ | ✓ | ✓ | | | ✓ | | | | | |
| Thailand | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | | |
| Malaysia | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | | |
| Brunei | | ✓ | ✓ | | | ✓ | | | | | |
| China | | ✓ | ✓ | | | ✓ | ✓ | | | | |
| India | | ✓ | ✓ | ✓ | | | ✓ | | | | |
| Pakistan | | ✓ | ✓ | | | | | | | ✓ | ✓ |
| Bangladesh | | | ✓ | | | ✓ | | | | ✓ | |
| Nepal | | ✓ | ✓ | | | ✓ | | | | ✓ | |

# Conclusion

This study shows two interesting facts about MSMEs in Indonesia. One is related to the performance of the enterprises, and the second one is about their current main constraints. With respect to the performance, MSMEs are of overwhelming importance in Indonesia, as they accounted for more than 90 percent of all existing firms, and they continue to grow every year. This may be a positive sign of ongoing entrepreneurship development in the country. However, MSMEs are dominated by MIEs, which are undertaken mainly by poor and less educated households or individuals as their primary income source. Thus the growth of especially 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. It also shows that MSMEs have larger GDP contribution than that of LEs. However, this is not because MSMEs have higher productivity than that of LEs. On the contrary, labor productivity in MSMEs is much lower as compared to LEs. Thus, the larger GDP share of MSMEs in Indonesia is mainly because the number of these enterprises is very huge.

With respect to the second fact, the main constraints faced by most of the enterprises are 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. In addition, the study also shows that most owners of the enterprises have low formal education which may keep their technology or innovation ability low.

Lack of innovation capability caused by lack of education should be considered very serious (even more serious than other constraints), that slowly but sure can wipe out Indonesian MSMEs from both domestic and export markets in the long-run with the increasing pressures of other competitors.

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