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# Crisis-Adjustment Strategies Adopted by SMEs in Coping with the 2008-2009 Global Economic Crisis: The Case of Indonesia

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## ABSTRACT

*This study explores crisis-adjustment strategies adopted by small and medium enterprises (SMEs) in Indonesia in coping with the 2008-2009 global economic crisis. For the purpose of the study, a field survey on export-oriented SMEs in the wood and rattan furniture industry was conducted. The furniture industry was chosen as it is among several industries in Indonesia severely affected by the crisis. From June 2008 to June 2009, export of Indonesian furniture declined significantly. The survey found that the highest-ranking adjustment measure taken by the majority of the respondents was seeking out new customers or markets. It also found that for those who made adjustments to their existing workforce, the most important form was reducing working time. Overall, it was found that uneducated and female workers were the most affected by the labor-adjustment measures.*

## INTRODUCTION

Many economists consider the global economic crisis of 2008–2009 the most serious financial crisis since the great depression in the 1930s; with its global effects characterized by the failure of key businesses, declines in consumer wealth estimated in the trillions of U.S. dollars (USD), substantial financial commitments incurred by governments, and a significant decline in economic activity. The crisis rapidly developed and spread into a global economic shock, resulting in a number of European bank failures, declines in various

stock indexes, and large reductions in the market value of equities and commodities. Many countries, including in Asia, have proposed, with varying weight assigned by experts, both market-based and regulatory solutions in order to mitigate the negative impacts of the crisis on their economies.

The Indonesian economy was affected by the crisis, mainly through its export channel.<sup>1</sup> Consequently, Indonesian gross domestic product (GDP) was predicted to grow in 2009 at a lower rate than expected in a normal situation.

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<sup>1</sup> See, for instance, Griffith-Jones and Ocampo (2009) for their analysis on the nature of the global economic crisis and the main channels through which the crisis affected developing countries.

Indonesian export of several commodities has also been adversely affected by the crisis, as demands from destination countries, (e.g., the US, Japan, and European countries) have dropped. The wood and rattan furniture is among these commodities with the furniture industry in Indonesia dominated by small and medium enterprises (SMEs).

This study aims to explore crisis-adjustment strategies adopted by SMEs in Indonesia in coping with the global economic crisis. It sought to answer two research questions: "What crisis-adjustment strategies have been taken by the affected SMEs?" and "How did the adjustment measures affect the workers in the enterprises?"

#### METHODOLOGY

For the purpose of the study, a survey of 39 SMEs in the furniture industry was conducted with the use of semi-structured questionnaires in June-July 2009. The sampled SMEs were randomly selected based on lists of furniture producers provided by regional/local offices of the Association of Indonesian Furniture Producers in three key furniture industrial centers in Indonesia: Cirebon in the West Java province, and Jepara and Solo in the Central Java province.

#### **Development of Indonesian SMEs**

According to the 2008 Law on SMEs No. 20, SMEs are businesses which have annual sales/turnovers of up to one billion Indonesian rupiah (IDR) and fixed investment (excluding land and building) less than IDR 10 billion. In terms of the total number of workers, the National Agency of Statistics (BPS) defines SMEs as units with 50 employees or less. SMEs

consist further of three sub-categories: micro enterprises (MIEs), with up to five workers; small enterprises (SEs) with six to 20 workers; and medium enterprises (MEs) with 21-50 workers.

SMEs are very important in Indonesia as these enterprises have historically been the main players in domestic economic activities. They provide employment to over 90 percent of the total workforce (mostly women and the youth), and hence, generate primary or secondary sources of income for many low-income households. They generally account for more than 90 percent of all firms across sectors. A vast majority of SMEs are scattered widely throughout the rural areas and, are therefore, likely to play an important role in developing the skills of villagers, particularly women, as entrepreneurs. Most of these enterprises are found in agriculture, followed by trade, hotel and restaurants, and the manufacturing industry. During the 1997/98 Asian financial crisis, although many SMEs were hit by the crisis, in general, these enterprises were more able to survive compared to their larger counterparts.<sup>2</sup> For these reasons, the Indonesian government strove not only to help the enterprises survive but also to promote their growth (Tambunan 2009).

Based on data from the BPS, SMEs account for more than 90 percent of all firms in all economic sectors and generate the biggest employment, providing livelihood for over 90 percent of the country's workforce. In 2008, the total population of SMEs reached more than 51 million units (or about 99.99% of the total enterprises at 51,262 million units in the country). This number increased from almost 50 million units in 2006 (Table 1).

The structure of enterprises by size category indicates that the majority of enterprises in all

<sup>2</sup> See van Dierman et al. (1998), Hill (2000), Musa (1998), Musa and Priatna (1998), Sandee (1999), Sandee et al. (2000), and Tambunan (1998).

sectors are from the SME category, mainly MIEs; whereas, the distribution of total SMEs by sector shows that the majority of these enterprises in Indonesia are involved in agriculture (Tables 2 and 3). The second largest sector is trade, and hotel and restaurants, while the third is manufacturing. In the latter sector, the enterprises are engaged mainly in simple, traditional activities such as manufacturing of wood products, including furniture, textiles, garments, footwear, and food and beverages. Only a small number of SMEs are involved in the production of machineries, production tools, and automotive components. In the automotive

industry, SMEs operate through subcontracting systems with several multinational car companies in Indonesia such as Toyota and Honda.

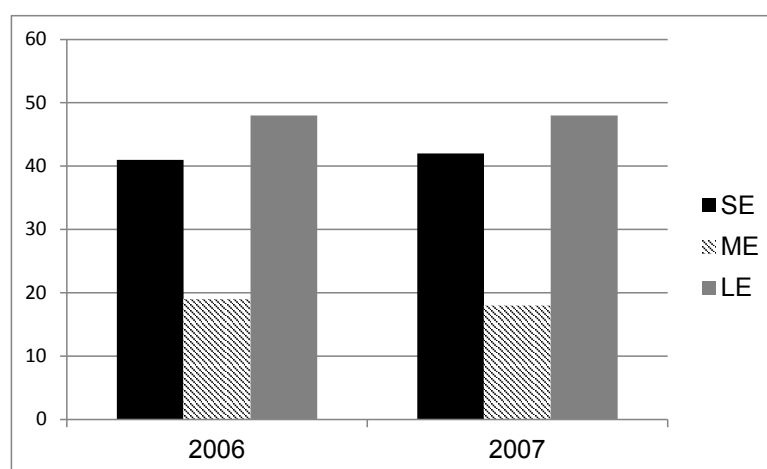
SMEs' contribution to the formation of GDP (Figure 1) in Indonesia is relatively high, even higher than that of large enterprises (LEs). In 2007, the value of SMEs' GDP reached IDR<sup>3</sup> 2,121.3 trillion, an increase of about IDR 335.1 trillion from 2006. With this value, SMEs contributed 53.6 percent to GDP in 2007, slightly higher than their GDP share in 2006 at 53.5 percent. More specifically, in 2007 the GDP contribution of SEs reached IDR 1,496.3 trillion

**Table 1. Enterprises by size category in all economic sectors, Indonesia (thousand units)**

Size Category	2000	2001	2003	2004	2005	2006	2007	2008
MIEs and SEs	39,705.2	39,883.1	43,372.9	44,684.4	47,006.9	48,822.9	49,720.3	51,217.9
MEs	78.8	80.97	87.4	93.04	95.9	106.7	120.3	39.7
LEs	5.7	5.9	6.5	6.7	6.8	7.2	4.5	4.4
Total	39,789.7	39,969.9	43,466.8	44,784.1	47,109.6	48,936.8	49,845.0	51,262.0

Note: MIEs = microenterprises, SEs = small enterprises, MEs = medium enterprises, LEs = large enterprises  
Sources: Ministry of Cooperatives and SMEs and Indonesian Central Statistics Agency (BPS)

**Figure 1. GDP share by size of enterprises in 2006 and 2007, Indonesia (%)**



<sup>3</sup> In 2007, USD 1 = IDR 9143

**Table 2. Structure of enterprises by size category and sector in 2008, (units)**

Sector	MIEs			SEs			MEs			LEs			Total	
	Volume	Value	Value	Volume	Value	Value	Volume	Value	Value	Volume	Value	Value	Volume	Value
Agriculture	26,398,113	52.1	1,079	0.21	1,677	4.23	242	5.54	242	5.54	26,401,111	51.50	26,401,111	51.50
Mining	258,974	0.5)	2,107	0.41	260	0.66	80	1.83	80	1.83	261,421	0.51	261,421	0.51
Manufacturing	3,176,471	6.3	53,458	10.28	8,182	20.63	1,309	29.94	1,309	29.94	3,239,420	6.32	3,239,420	6.32
Electricity, gas, and water supply	10,756	0.02	551	0.11	315	0.79	125	2.86	125	2.86	11,747	0.02	11,747	0.02
Construction	159,883	0.3	12,622	2.43	1,854	4.68	245	5.60	245	5.60	174,604	0.34	174,604	0.34
Trade, hotel, and restaurant	14,387,690	28.4	382,084	73.45	20,176	50.88	1,256	28.73	1,256	28.73	14,791,206	28.85	14,791,206	28.85
Transportation and communication	3,186,181	6.3	17,420	3.35	1,424	3.59	319	7.30	319	7.30	3,205,344	6.25	3,205,344	6.25
Finance, rental, and other services	970,163	1.9	23,375	4.49	3,973	10.02	599	13.70	599	13.70	998,110	1.95	998,110	1.95
Services	2,149,428	4.24	27,525	5.29	1,796	4.53	197	4.51	197	4.51	2,178,946	4.25	2,178,946	4.25
Total (percentage)	50,697,659	100.00	520,221	100.00	39,657	100.00	4,372	100.00	4,372	100.00	51,261,909	100.00	51,261,909	100.00

Note: Volume in million kilograms; Value in million USD

Sources: Ministry of Cooperatives and SMEs and Indonesian Central Statistics Agency

**Table 3. Structure of enterprises by size category and sector in 2008, (number of workers)**

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

Sources: Ministry of Cooperatives and SMEs and Indonesian Central Statistics Agency

(37.%). The contribution of MEs was IDR 625.1 trillion (15.8%), and LEs' contribution was IDR 1,836.1 trillion (46.4%).

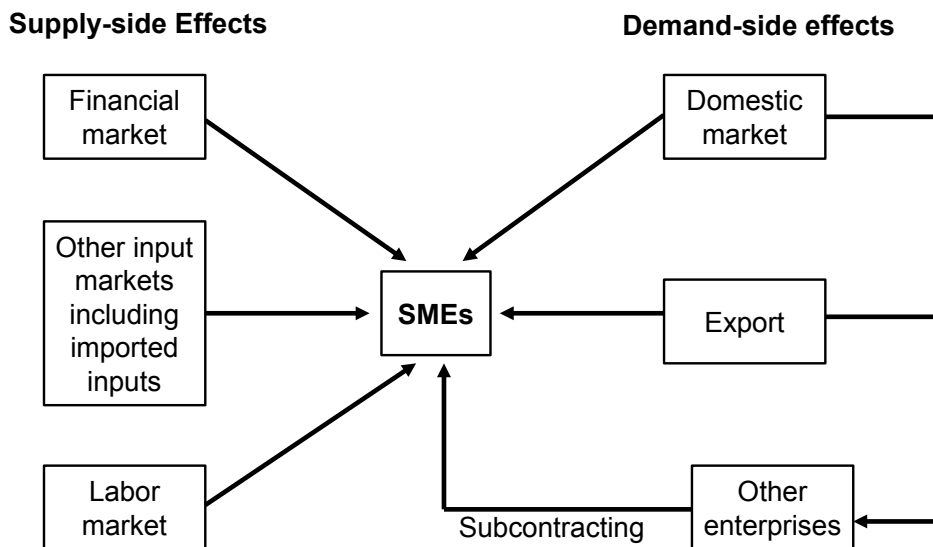
### The Impact of the 2008-2009 Global Economic Crisis on Indonesia's SMEs

Theoretically, the effect of a global economic crisis on Indonesia, depends much on the degree of openness and integration of the Indonesian economy with the rest of the world. Since the Indonesian economy in the past two decades have become increasingly integrated with the world economy, particularly with the US, Japan, and Europe through trade and investment linkages, the effect of the 2008-2009 global economic crisis on the Indonesian economy occurs mainly through trade and investment channels. The crisis, which started in the US, led to the decline in world income and, hence, world demand for Indonesian goods. This has led further to the decline of Indonesian exports of various commodities, including wood and rattan furniture.

At the micro level, SMEs can be affected by a change in economic condition or an economic crisis, such as the 2008-2009 global financial crisis, either initially through the demand-side or the supply-side or both at the same time. The effect can be positive or negative. As illustrated in Figure 2, the supply-side (SS) effects occur for factors of production and other inputs via the markets; while the demand-side (DS) effects occur via the output (final and intermediate) markets (Tambunan 1998).

The negative SS effects occur mainly from two sources. First, are the financial market effects due to tight national liquidity, either as a direct policy response to a crisis, or because of lack of money reserve in banks (thus, no new loans are given), and less credit flow to enterprises. Consequently, many enterprises that used to depend on bank credit could not continue their production. Second, are the input market effects wherein prices of raw materials increase significantly, either because of depreciation of the national currency against the US dollar (USD) (for imported items), or

Figure 2. A theoretical framework of the impact of an economic crisis on individual SEs



because domestic production of such inputs decline. The effect of the 1997/98 Asian financial crisis on Indonesian SMEs was mainly transmitted through the supply-side (the negative SS effect). During the crisis, the IDR depreciated significantly against the USD which resulted in a significant increase in the prices of imported goods, including a variety of processed raw materials, components, and spare parts. This led many domestic companies, which depended much on imported inputs, to collapse. During the period, the Indonesian banking sector also collapsed, which further devastated many domestic, mainly large companies, as credit was not available or too expensive.<sup>4</sup>

The DS effects occur from two sources: domestic and abroad. The first source occurs when domestic demand drops as a direct consequence of a domestic economic recession; whereas, the second source occurs when export demand declines as a direct consequence of a regional or a global economic recession. Based on evidence and literature (Tambunan and Sugarda 2009a; 2009b), the 2008-2009 global economic crisis affected the Indonesian furniture industry mainly through the demand-side channel, and particularly through the export market. The crisis had its origins in the big financial crisis in the USA, which spread to many other countries in Europe and Japan. As they are the most important destinations for many Indonesian goods, including furniture, the economic recession in these countries led to a significant drop in Indonesian exports to these countries.

### **Evidence from Other Asian Developing Countries**

The global economic crisis that began in 2007 as a financial crisis in the US has been called the most serious financial crisis since the Great Depression by many economists. Its impact among global entities is characterized by the failure of key businesses, declines in consumer wealth estimated in trillions of USD, substantial financial commitments incurred by governments, and a significant decline in economic activity. The crisis rapidly developed and spread into a global economic shock, resulting in a number of bank failures, declines in various stock indexes, and large reductions in the market value of equities and commodities. Many countries, including those in Asia, have received recommendations, with varying weights assigned by experts, for both market-based and regulatory solutions in order to mitigate the negative impact of the crisis on their economies (Tambunan and Sugarda 2009).

Many reports or academic papers have been written about the 2008-2009 crisis, but studies on the impact of the crisis on SMEs are very scarce. However, some authors have managed to examine the crisis in terms of SMEs in various Asian developing countries. For instance, Nguanbanchong (2009) found that in some of these countries, export-oriented SMEs in labor-intensive manufacturing (e.g., textile, garment, footwear, seafood processing, electronic) and also those producing items for tourism were most affected by the demand slump caused by the crisis. Many workers in

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<sup>4</sup> While research on the impact of the 2008-2009 global economic crisis on SMEs in Indonesia is very scarce, there are many studies on the impact of the 1997/98 Asian financial crisis on SMEs in Indonesia. Among them are Dierman et al. (1998), Hill (2000), Musa (1998), Musa and Priatna (1998), Sandee (1999), and Sandee et al. (2000).

these enterprises, especially women, have been affected by layoffs of fixed as well as contract workers, reduction of work days or hours, and freezes on the minimum wage.

In China, Liu (2009) found that enterprises producing daily goods such as toys, clothing, textile products, shoes, furniture, sports gears, and stationeries were most affected, with the east coast region being hit most severely. Most of the enterprises that were forced to shut down were export-oriented SMEs. In January 2009, the number of new orders received by the SMEs mainly from the US and European markets dropped by 20 to 50 percent. There were also many suspensions and cancellations of contractual export orders. Many export-oriented SMEs chose to limit or cease production and narrow their product lines, or began to turn to domestic market development.

According to a report from the Economist Intelligence Unit (EIU 2010), more than 100,000 export-oriented SMEs had ceased production by the end of 2008. In Wenzhou in Zhejiang province and Dongguan in Guangdong, where some of the country's biggest concentrations of export-oriented SMEs are found, about 30,000 of them were affected by the crisis and many of them shut down in late 2008 and early 2009. Even the Chinese government stated that, partly because of their greater dependence on foreign markets, Chinese SMEs were in worse trouble during the global economic crisis than during the 1997/78 Asian financial crisis. In addition, in a survey of 500 Hong Kong SMEs on mainland China in the second quarter of 2009, 69 percent indicated that weak export demand was a "serious" or "very serious" difficulty facing their operations. Many of the respondents work for export-oriented enterprises in neighboring Guangdong, with their most important markets being the US and Eurozone countries.

Given the fact that the majority of export-oriented SMEs export indirectly through

subcontracting with export-oriented LEs, the actual number of export-oriented SMEs affected by the crisis is likely to be much larger than what has been identified so far. However, since no data are available on how many of these enterprises are subcontracting with the export-oriented LEs in the region, evidence on the most affected exports by commodity and country may give some clue, at least in what commodities export-oriented SMEs were most affected. Table 4 shows the most affected exports during the first quarter of 2008 and the first quarter of 2009 in selected Asian developing countries. Some of these (e.g., textile, clothing, leather, food and beverages) are important products of SMEs, either as subcontractors or final producers for both domestic and export markets.

### **Some Evidence from Indonesia**

Until September 2008, Indonesia's economy was still showing some resilience to the crisis. However, in October-December 2008, the country's economy experienced deteriorating economic performance at an unprecedented speed. The overall growth rate for 2008 was 6.2 percent, a slight decline from 6.3 percent in 2007. In 2009 the Indonesian economy grew only 4.5 percent. In 2010, economic growth was expected to recover in the 5.5 percent - 6.0 percent range (Tambunan and Sugarda 2009a; 2009b).

Figures on quarterly growth rate of GDP by sectoral origin show that in 2009, the output from the manufacturing industry was expected to have a negative growth at 0.4 percent, and within the sector, output from non-oil and gas manufacturing industry was expected to decline by 0.2 percent. In this subsector, within groups of industry, output from wood and wood product industries was also expected to experience negative growth at 3.5 percent (Table 5). This prediction was in line with that of the Ministry



**Table 4. Most affected exports by the crisis in selected Asian developing countries**

Country	Commodities
China	Non-electrical and electrical machinery and apparatus, clothing (including footwear), textile, professional and scientific equipment
Hong Kong, China	Non-electrical and electrical machinery, clothing (including footwear), iron, steel and non ferrous metal, plastic products
India	Textiles and garments, jewelry and related articles, basic iron and steel, grain mill products, textile yarns, fabrics and made-up articles, casting of iron, steel and non-ferrous metal
Indonesia	Textiles and garment, basic precious and non-ferrous metals, produced, processed and preserved meat, fish, fruit, vegetables, oils/fats, basic chemicals, rubber and plastic products, electrical machinery and apparatus
Malaysia	Industrial equipment, processed and preserved meat, fish, fruit, vegetables, oils/fats, basic chemicals, rubber and plastic products, metal manufacturing and general industrial non-electrical machinery, telecom, sound recording and reproducing apparatus, office accounting and computing machinery
Philippines	Electrical machinery and apparatus, office accounting and computing machinery, road vehicles and components, clothing, leather products and footwear, processed and preserved meat, fish, fruit, vegetables, oils/fats, beverages
Singapore	Basic chemicals, rubber and plastic products, food products, tobacco products, electrical machinery and apparatus, office accounting and computing machinery, metal manufacturing, general industrial non-electrical machinery and equipment
Vietnam	Food and beverages, leather, leather products and footwear, textiles, rubber and plastic products, wood products (excluding furniture)

Sources: Khor and Sebastian (2009), ADB (2009), recent database from the ASEAN Secretariat, and national data on trade from some individual countries

of Industry which had stated that many export-oriented sub-sectors of the manufacturing industry such as vegetable oils and fats, spinning, textiles, refined petroleum, paper and paper products, chemicals and chemical products, rubber and plastic products, non-iron metal products, machinery and equipment, and furniture are among the industries which are most vulnerable to external shock. Indeed many reports of labor layoffs came mainly from those manufacturing sub-sectors (Djaja 2009).

The effect of the crisis on the Indonesian economy has also been shown by the plunge in stock market prices, deeply depreciated IDR, and significant increase of government bond

yield. The deleveraging process in the global financial markets has caused the global liquidity dry up that pushed the investors, including those in Indonesia, to rearrange their portfolio. The re-pricing process faced by investors with huge hike in risk perception had pushed capital outflows from emerging markets. Regional stock market prices had been severely corrected and regional bond markets demanded higher yield (Djaja 2009).

SMERU Research Institute (2009) provides some local evidence on the impact of the crisis on SMEs in the textile and garment (TG) industry in Indonesia. The province of West Java is the center of the Indonesian TG industry, with the

**Table 5. Preliminary figures GDP growth rate, quarter to quarter by sectoral origin, 2009**

Sector	Growth rate (%)
Agriculture, livestock, forestry, and fishery	19.3
Mining and quarrying	-0.5
Manufacturing industry	-0.4
Oil and gas	-1.7
Non-oil and gas	-0.2
Food, beverages, and tobacco	1.2
Textile, leather products, and footwear	3.5
Wood and other products	-3.5
Paper and printing products	10.2
Fertilizers, chemical, and rubber products	0.0
Cement and non-metallic quarry products	-5.1
Iron and steel, basic metal	2.9
Transport equipment, machinery, and apparatus	-3.4
Other manufacturing products	2.3
Electricity, gas, and water supply	3.6
Construction	-1.2
Trade, and hotels and restaurants	-4.8
Transport and communication	2.1
Finance, real estate, and business services	0.8
Services	1.3
<b>GDP</b>	<b>1.6</b>
<b>Non-oil and gas GDP</b>	<b>1.8</b>

Source: Indonesian Central Statistics Agency

most affected located in Bandung and Cimahi. According to the Indonesian Textile Producers Association (API), the livelihoods of 50,000 TG producers in approximately 150 enterprises in the district (*Kabupaten*) of Bandung in 2009 were threatened with bankruptcy as a result of the increase in the price of imported raw materials, which had caused production costs to rise by about 20 percent. In one industrial area in the district (Dayeuhkolot Industrial Bonded Area [KBI]), 12 SMEs in the industry were likely to temporarily layoff thousands of contract workers.

Handicraft industries connected with tourism, which are dominated by SMEs, have

also been affected by the crisis. According to SMERU's (2009) report, in the second half of 2008, several handicraft industries in Bali started asking their workers to stay at home. The most important handicraft in this province is silversmithing. In 2008, Bali had around 300 registered silversmiths who employed more than 20,000 people. In many villages, almost all people were involved in this industry. In Desa Celuk, more than 50 percent of the people were silversmiths, and it was found that 30 of them had been temporarily laid off. Because of the crisis, the production of silver handicraft dropped by 50 percent from an average of around 100 kilogram (kg) to 50 kg per month

per worker. A similar problem has haunted many craftsmen who make wooden masks in Desa Tegallalang, Ubud, Bali. Many of them were found to have stopped their production. Handicraft industries in some other provinces also faced similar problems. For instance, many *songket* cloth weavers in Palembang and Ogan Ilir in the province of South Sumatera have stopped production because some of their overseas buyers, especially those in Singapore and the US, had not purchased their products since October 2008. In the province of East Java, by mid-2008, production in the brass-casting handicraft industry dropped by up to 50 percent because of a decline in demand from markets in many countries, including the US. Monthly revenues of USD 60 million to USD 120 million were lost, while it was estimated that the number of workers who had lost their jobs rose by 50 percent.

Besides TG and handicraft industries, the furniture industry which is also overwhelmingly dominated by SMEs, was also seriously hit by the crisis through a significant decline in world demand. The Indonesian Rattan Furniture and Craft Producers Association (AMKRI) announced that, due to the decline in foreign demand for Indonesian furniture, the industry may have to layoff nearly 35,000 workers in the early part of 2009. In the first quarter of 2009, the export value of Indonesian furniture had already dropped by 35 percent compared to the same period in the previous year. In the second quarter of 2009, the export value of Indonesian furniture declined by 30 percent, compared to USD 2.65 million in 2008. According to the Indonesian Furniture Producers Association (ASMINDO), there was also some decline of demand for furniture in the domestic market; the percentage of the decline, however, was not mentioned.

The Indonesian Central Statistics Agency (BPS) also reported a decline of 28 percent

in timber exports for the first quarter of 2009 compared with the same quarter of 2008. The Agency reported that timber products worth USD 559.7 million were exported in the first quarter of 2009, while the Jakarta Globe reported a sharp decline of 23.2 percent in the export volume of wooden furniture, doors, and window frames. Similarly, export values declined by 15.8 percent compared to the value of exports in the first quarter of 2008 (USD 375.8 million) (Tambunan and Sugarda 2009a; 2009b).

Most recent data from the Secretariat of ASMINDO show that the export value of Indonesian furniture from all materials (i.e., wood, rattan, bamboo, iron, plastic, etc.) declined slightly in 2008, and in March 2009, the value was around USD 434.5 million (Table 6). Specifically for rattan furniture, data from ASMINDO show that since June 2008, the export volume has declined significantly (Figure 3). Solo in Central Java Province, one of the surveyed regions for this study, also show a similar picture during the second quarter of 2008 and 2009 (Figures 4 and 5). Furthermore, ASMINDO reported that, of its total membership of 200 furniture producers (mainly SMEs), about 30 percent to 40 percent closed their activities, 20 percent stagnated, and 10 percent became suppliers to big furniture exporting companies over the last year. (Tambunan and Sugarda 2009a; 2009b).

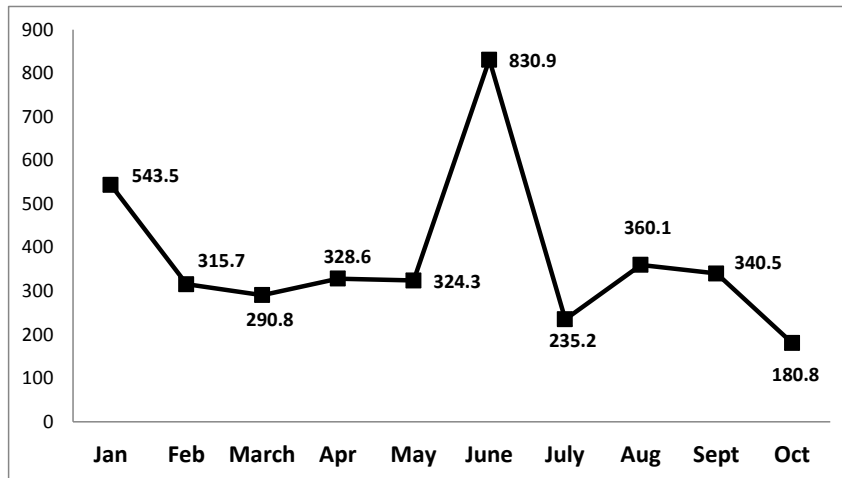
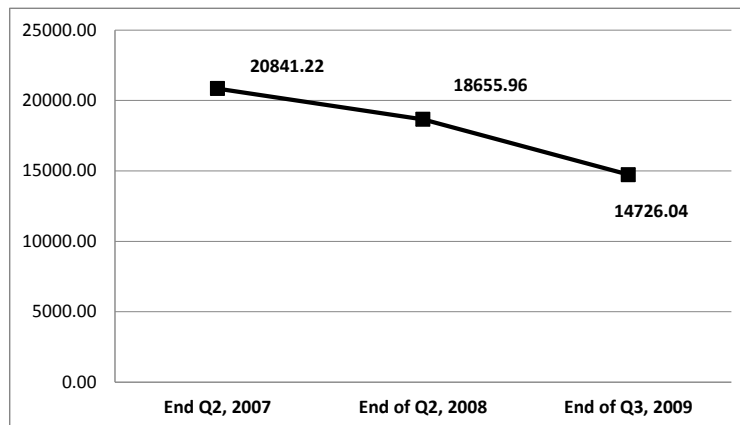
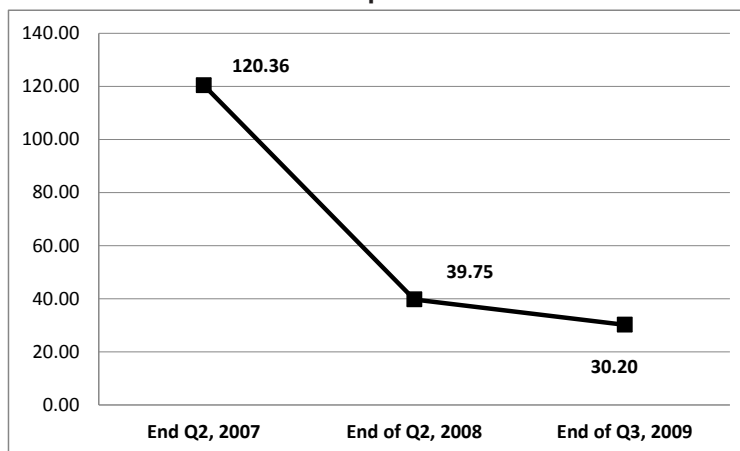
In order to get a more real picture of the impact of the crisis on the furniture industry, the ASMINDO Secretariat in Jakarta conducted focus group discussions (FGD) and interviews in May 2009 with many producers/exporters in a number of clusters in the Central Java province (as the center of the wood and rattan furniture industry in Indonesia), specifically in Trangsan, Luwang, Gatak, and Sukoharjo. It found that in the last 12 months, (1) the number of output containers declined from

Table 6. Indonesian export of furniture products by country of destination, (2004 to March 2009)

Country	2004		2005		2006		2007		2008		2009	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
USA	180.6	458.4	190.7	524.8	193.2	573.7	196.7	569.7	167.44	538.9	33.2	114.4
Japan	91.7	164.98	93.5	171.8	93.5	170.4	103.2	188.8	106.7	210.0	24.9	53.3
Netherlands	50.0	108.0	49.5	115.8	46.3	131.1	50.8	131.9	46.4	135.1	11.7	35.03
UK	47.9	100.7	48.2	115.7	57.9	101.1	66.34	115.2	62.2	106.5	12.6	21.96
France	44.7	92.0	40.2	103.7	40.7	96.95	46.1	108.2	39.9	107.4	8.24	24.5
Germany	39.8	93.7	43.04	101.8	38.7	95.04	42.4	104.4	31.8	96.2	9.4	29.7
Belgium	27.5	72.5	27.9	76.1	28.6	79.5	32.1	93.4	28.7	90.1	6.2	21.5
Spain	29.7	60.8	35.2	70.8	34.1	71.5	34.6	76.5	34.4	65.44	3.9	10.9
Italy	28.1	55.1	49.0	90.99	27.4	60.2	26.9	62.1	23.98	58.98	5.8	18.1
Australia	40.4	66.3	36.9	62.9	37.2	59.94	37.5	62.0	21.5	57.2	5.8	10.98
Others	204.1	309.8	222.1	355.0	238.2	370.8	262.3	449.4	262.7	488.5	47.8	94.1
Total	784.4	1,582.3	836.2	1,789.4	835.6	1,810.1	898.9	1,961.2	825.6	1,954.2	169.5	434.5

Note: Volume is in million kg and value is in million USD

Source: ASMINDO Secretariat (2009)

**Figure 3. Volume of Indonesian rattan furniture export in 2008 (thousand kg)****Figure 4. Volume (tons) of Solo's furniture exports, 2nd quarter 2007 to 3rd quarter 2009****Figure 5. Value (million USD) of Solo's furniture exports, 2nd quarter 2007 to 3rd quarter 2009**

Source of Figures 4 and 5: ASMINDO Solo (2009)

approximately 360 to 100 containers on average per month, (2) the number of producers/exporters in the clusters declined from 510 units to 250 units, (3) employment dropped from 7,600 workers to 3,000 workers, and (4) sales of raw materials and intermediate inputs to the clusters also dropped significantly. According to the producers surveyed, the decline is mainly caused by the fall in demand of their destination countries such as the US and several countries in Europe.

Theoretically, other factors such as competition pressures in the international markets, supply-side problems such as difficulties in getting raw materials, and lack of capital may have caused the slowdown in furniture exports. However, according to ASMINDO and the producers interviewed, these factors did not play a significant role. In fact, they report that although countries such as China and Vietnam have become serious competitors in the past five years, this has not led to a decline in their exports (Tambunan and Sugarda 2009a; 2009b).

It was also found that of the producers who are still in operation, many have had to reduce their production volume. This negative impact of the current crisis is indeed expected. Wood and rattan furniture are considered durable and non-essential products which are sold on a perceived, rather than actual value. Consequently, demand is strongly affected by economic fluctuations such that an economic

downturn will considerably influence demand, resulting in delay of purchases (Andadari 2008).

In Cirebon, the picture is similar although the decline started earlier. According to the chairman of Cirebon ASMINDO, who was interviewed during the survey, the export of wood and rattan furniture has declined since 2005.<sup>5</sup> Regional government data on the exports of furniture from Cirebon collected during the survey show that, before 2005, the average export was around 2,500 containers per month; in 2005, it dropped to 1,218 units per month. From January to June 2009, 824 containers (or a total of 6,629 units) were sent. Based on volume, the total export was 49,614,791 kg in 2005, or an average of 4,134,566 kg per month, which was slightly higher in 2008 at 50,548,560 kg or 4,212,380 kg per month. In June 2009, the volume reached 2,926,142 kg, much lower than the average of 4,038,197 kg per month from January-June 2009. The value was slightly more than USD 122 million in 2005, or slightly above USD 10 million on average per month. In 2008, it was almost USD 140.6 million, or USD 11.7 million on average per month. In June 2009, the value reached USD 8.2 million, down from approximately USD 10 million the month before (Table 7).

Moreover, the demand for furniture declined by around 50 percent from 2005 to 2009. If one container on average needs 60-70 workers, then the 50 percent decline certainly adversely affects employment in the region. By July/

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<sup>5</sup> According to the chairman of Cirebon ASMINDO, the decline of furniture export from Cirebon has been caused by three significant factors, not just by the current crisis. The first factor was a new regulation issued in 2005 by the Ministry of Industry and the Ministry of Trade that allowed free export of unprocessed wood and rattan. These materials also go to highly competitive countries in wood and rattan furniture such as China and Vietnam. This decision not only causes a scarcity problem for raw materials on the local market for domestic furniture producers, it also makes it more difficult for domestic producers to compete with China's and Vietnam's furniture, particularly rattan furniture, since rattan is only available in Indonesia. Second, the oil (BBM) price increased in 2006 which pushed up production costs, especially the prices of processed woods and rattan and other supporting materials. Third, the current global financial crisis started in 2007/08. All these three factors subsequently affected the export volume of wood and rattan furniture from Cirebon in the last four years. In addition, he also expected that the implementation of international certification (for good forestry management and to prevent illegal logging) for wood products from Indonesia in April 2010 will have a further negative effect on the export of wood furniture from Indonesia, including Cirebon.

**Table 7. Export of furniture from Cirebon, 2005-2009**

	2005	2006	2007	2008	2009 (June)
Total Containers (units)	14,611	14,308	13,384	14,369	6,629
Total Volume (kgs)	49,614,791	48,048,703	47,771,119	50,548,560	24,229,180
Total Value (USD)	122,090,576	123,542,327	121,668,797	140,566,161	66,180,337

Source: Regional Office, Department of Industry, Cirebon

August 2009, as a result of the drop in furniture exports, many workers in the furniture industry, especially women, were without work. This is most likely due to the fact that because female workers usually do the simple or final phase of the production process in the furniture industry such as packaging, they are the first victims of a crisis. A further consequence has been that in 2009, for the first time ever, Cirebon sent many women abroad looking for work.<sup>6</sup> Many female former workers from the industry are also now working as domestic helpers, while male workers who had been laid off in the furniture industry have moved to other sectors such as construction, services, trade, and local transport activities.

#### THE SURVEY: RESULTS AND DISCUSSIONS

The survey initially covered 39 SMEs: 10 units in Jepara, 10 in Cirebon, and 19 units in Solo. Based on the number of workers, these units had a total number of employees ranging from five to 20 workers. Many units were established years before the 1997/98 Asian financial crisis, suggesting that they managed to survive said crisis. Only 11 were found to have started during the period of 2005-2008. Regarding the respondents' market orientation, most were found to have been involved in export activities for many years, or even before they started their own businesses. For example,

by the second quarter of 2008, 17 enterprises earned 100 percent of their total revenues from exports; one enterprise earned 30 percent from exports, and one earned 10 percent from exports. This is in contrast to the second quarter of 2009 when there were six enterprises that earned 100 percent of their total revenues from the domestic market. Three of them used to export in 2008, but now focus on the domestic market because, as they said, they saw more opportunities in the domestic market. In this period, there were 17 enterprises who were 100 percent export-oriented. The most important export market destinations for the majority of the enterprises surveyed are the USA, Australia, and several Western European countries such as Spain, France, Italy, Germany, and the Netherlands. As discussed earlier, these countries are indeed the most important traditional markets for Indonesian exports of furniture and other wood products.

In order to assess the impact of the global economic crisis on the 39 enterprises surveyed, they were first asked whether their production had declined since the end of the second quarter of 2008. Two enterprises answered "no". Thus, the sample was reduced to 37 enterprises, (i.e., only those who had experienced a decline in their production). According to respondents, the decline was due to a drop in domestic and/or foreign demand, which started in mid-2008. Although other factors such as competition

<sup>6</sup> Indonesians who work abroad are officially known as Tenaga Kerja Indonesi (TKI)

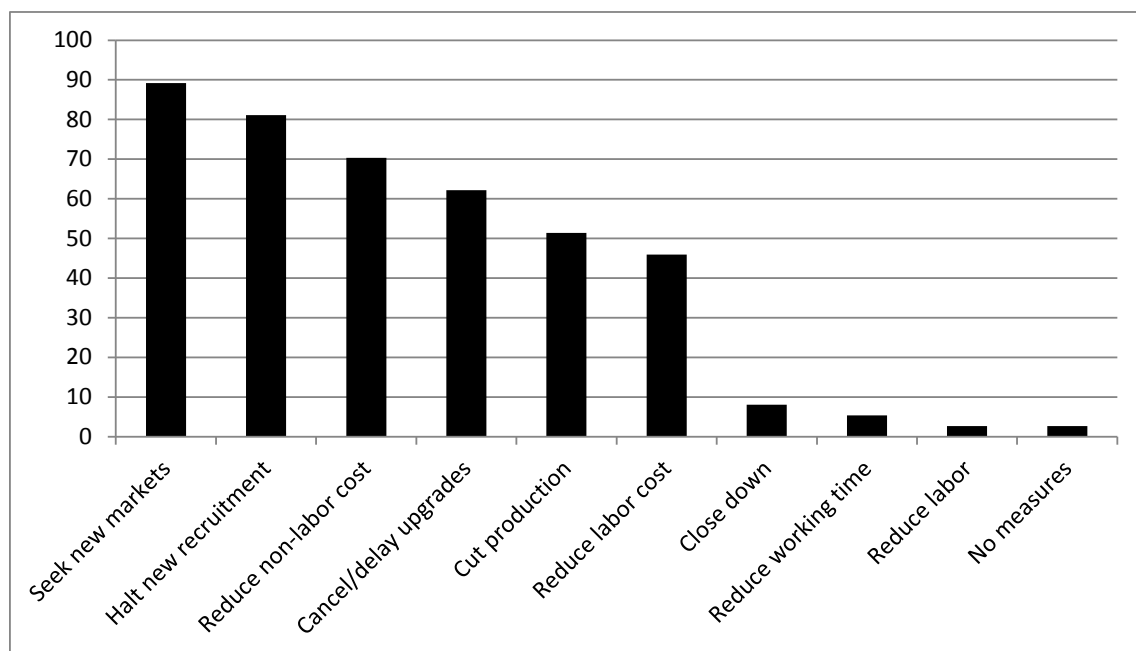
pressures from China and Vietnam could have caused the decline in production, the respondents believed that the global financial crisis was responsible. They also said that they had no supply-side problems (e.g., lack of raw materials or credit) during that particular period. At the time of the survey, none of the respondents had recovered yet.

It is generally believed that an enterprise facing an unanticipated decline in the demand market for its products, especially when the decline is not expected as a short-run phenomenon, normally takes some adjustment measures to mitigate the pressure on its profit. The measures can be in a variety of forms such as less production volume, fewer working hours, laying off workers, etc., depending on the real impact of the crisis on the production or financial condition of the enterprise, and the expectation of the owner/manager of the enterprise on the short-term prospect of the crisis.

To explore if this normal business strategy is also manifested in SMEs, the respondents were asked whether they had undertaken some measures to cope with the impact of the crisis. If they answered, “yes”, they were then requested to identify and rank the crisis-adjustment measures they had undertaken since the end of second quarter of 2008. They were given two questions: “What measures have they undertaken”, and, “How have they adjusted their existing workforce due to the impact of the crisis on their business?”

With respect to the first question, the respondents were given a number of business-adjustment measures which included the following: cancelling/delaying upgrades to existing facilities, cutting back on production, reducing non-labor and labor costs, seeking out new customers/markets, and halting new recruitment. From this particular question, the highest ranked measure was seeking out new customers or markets (Figure 6). Indeed,

**Figure 6. Crisis-adjustment measures taken by SMEs to cope with the impact of the crisis**



Source: ASMINDO Solo (2009)



the government asked exporters who have experienced a decline in foreign demand for their goods, especially those who have traditionally concentrated their export to the US, Japan, and European countries to expand their foreign market diversification or to shift away their focus from these countries towards other unexplored and less crisis-affected regions such as Africa and the Middle East, or to explore the domestic market during this crisis period. Export market diversification or domestic market exploration is indeed the right decision, since the crisis is a demand-side crisis, which has affected the Indonesian economy mainly through the export channel. In fact, in order to stimulate domestic demand, the Indonesian government launched a fiscal stimulus package in 2009. However, no evidence is yet available on the effectiveness of this fiscal policy.

From the sample, there were some producers who did not take any special measures to cope with the impact of the crisis, mainly because they thought that the crisis will not last long. The survey also found that three respondents had closed down their business. But as they said, their decision to stop production was only temporary, and in the meantime, they did something else such as open a small shop selling cigarettes, candies, and other simple basic goods, or working as a daily-paid worker in the construction sector, or as suppliers of certain materials for other furniture firms which are still in operation. They did these activities while waiting for the market situation to become normalize, after which, they can start again as furniture producers/exporters again.<sup>7</sup>

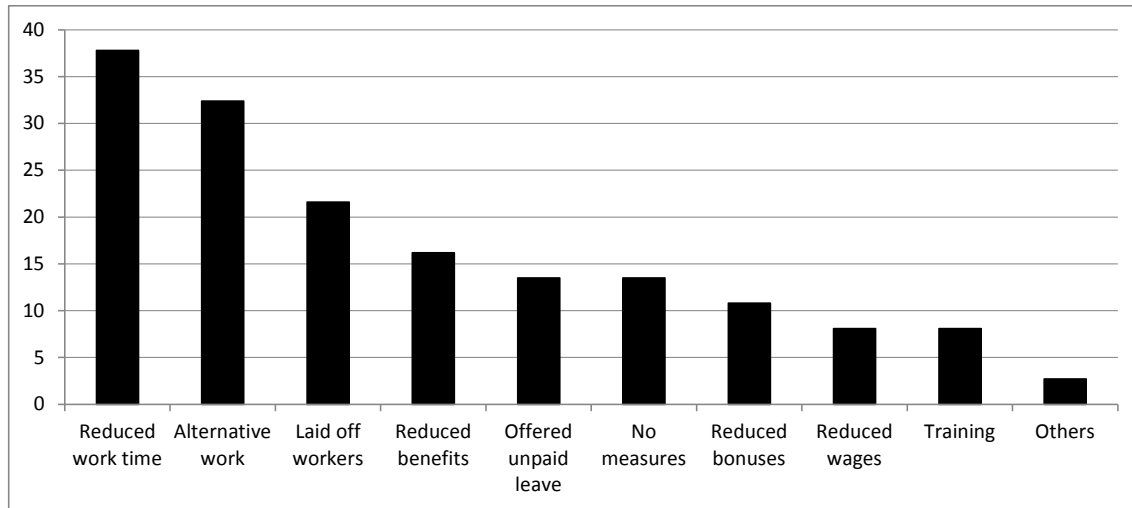
The employment situation in the surveyed enterprises is explained briefly. On the average,

the enterprises surveyed employed five to 10 workers who were mainly skilled production employees. Only a few were employed in top positions as managers. Not all had permanent jobs; most of the workers in the enterprises surveyed were temporary workers whose employment was based primarily on the number of orders. Almost all of the enterprises surveyed had female workers. Interestingly, it was found that most of the surveyed enterprises had no written contract with their employees. This is usually the case, however, in small enterprises or enterprises in the informal sector. Some workers have been found to have a written contract but only for one year or less. It was also found that in some enterprises surveyed, their employees were not paid regular monthly wages, but were paid based on orders.

With respect to the second question, the respondents were given a list of different options as possible labor-adjustment measures, including: developing alternative work arrangements (i.e., job sharing), providing training to workers during low production times, reducing working time/hours, reducing wages, reducing bonuses, reducing benefits, offering unpaid leave, and laying off workers. Figure 7 indicates that the most important forms of labor adjustment made by the majority of the respondents were reducing working time (37.80%), followed by developing alternative work arrangement (32.40%), and laying off workers (21.60%). With respect to working time, the reduction varied by enterprises, since the impact of the crisis on the enterprise's financial condition also varied. For many respondents, the main reason for not choosing to layoff workers, was that they expected the

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<sup>7</sup> In fact, during the survey, the respondents were also requested to give their own opinion on the short-term prospect of the crisis, specifically their expectation over the next six months about the demand (domestic as well as external) for their products. Although most of them suffered from a severe revenue decrease, the majority of the surveyed producers were optimistic and expected the demand to increase

**Figure 7. Affected existing workers in the SMEs by form of adjustment**

Source: ASMINDO Solo (2009)

crisis to be temporary. In addition, finding/recruiting new employees would not be easy because, first, they must compete with other producers in their clusters in finding new workers, and, second, they must train them. The survey also found that some respondents did not take special measures with their existing employees as they expected the crisis to be only a short-term phenomenon; and if they laid off their workers, finding new workers would not be easy. Moreover, the producers could not, for instance, reduce the wages of their workers because the workers had been working for them for a long time that they were practically family.

The respondents were also asked how many of their employees, especially women and low educated workers, had been affected by the types of measures they choose. In many surveyed firms, female workers were indeed affected by the labor adjustment measures, but the percentage of the affected female workers varied by the type of measure. For instance, the survey found that from 14 enterprises which chose to reduce the working hours of their workers as their primary labor adjustment

measure, there was only one enterprise in which female workers were not affected by the measure. Two percent were affected in one enterprise, five percent in another and 15 percent in three enterprises. In two enterprises, all female workers were affected. Of the six enterprises that decided to reduce benefits for their workers as their primary labor adjustment measure, there was only one enterprise where no female workers were affected. Of the five enterprises that offered unpaid leave to their workers, 35 percent and 50 percent, respectively, of the female workers in two enterprises were affected.

Finally, seven enterprises laid off some of their workers. Of these enterprises, there was only one enterprise where no female workers were affected, while in the other two enterprises, all female workers were laid off. Some respondents considered female workers less important to production since they usually do simple tasks such as packaging. One respondent said that the furniture industry is traditionally a male job and that they often hired female workers not as a necessity, but mainly as

helpers paid less than male production workers. It is different in the garments, textile, and tobacco industries, where female workers are predominant.

Another important issue that the survey focused on was the type of workers most affected by reduction in income and working hours. The findings show that unskilled production workers are the most affected type of employees. This was the case in 46 percent of the total enterprises surveyed with respect to income reduction and in 53 percent with respect to a reduction in working hours (Figure 8). The percentage decrease in average income among the unskilled production workers affected, however, varied by enterprise. One enterprise (5%) experienced the highest drop at 90 percent and another experienced the lowest at 2 percent. Most unskilled production workers were usually women.

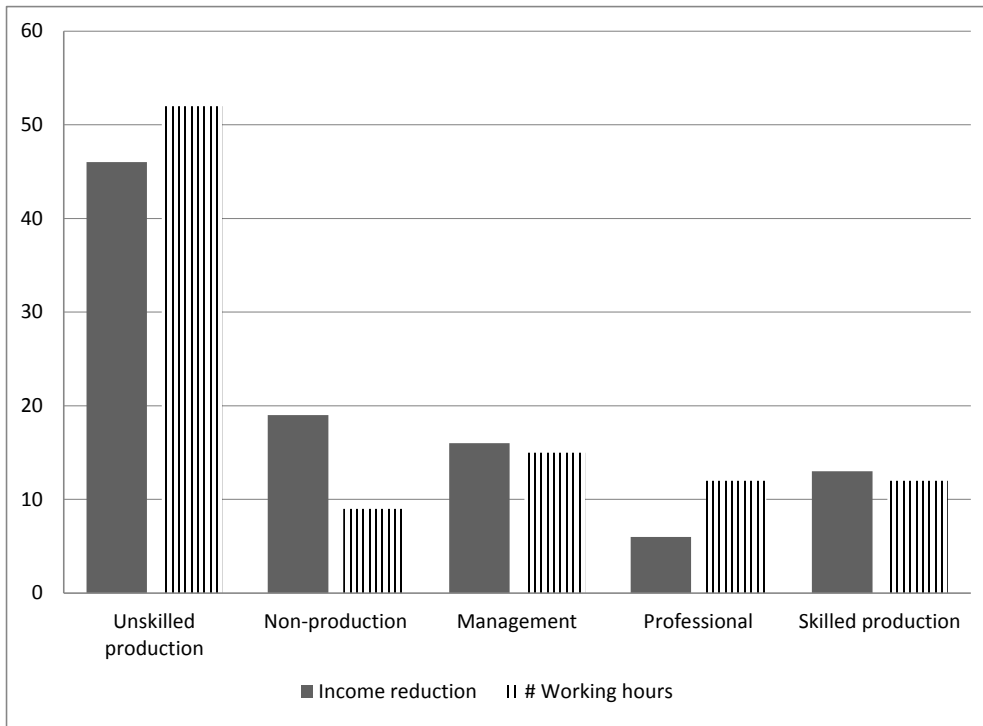
Finally, the respondents were asked about the types of support (such as severance pay, re-training, counselling/assistance in finding new jobs, loans, etc.) they provided to their workers in case of layoffs. The findings show that many of the surveyed enterprises did not provide any support, and among those who provided support, the largest percentage was in the form of counselling/assistance in finding new jobs, followed by loans and severance pay, which was only for permanent workers (Figure 9).

Overall, the findings suggest that female workers, temporary workers, and unskilled production employees have felt the greatest effects of the decline in production in the enterprises surveyed. However, this evidence does not come as a surprise (as this usually occurs in big companies) for a number of reasons. First, the types of work performed by women in the furniture industry are usually simple or easy parts of the production process (e.g., packaging) and tasks of this nature can also be performed by the core workers, if necessary.

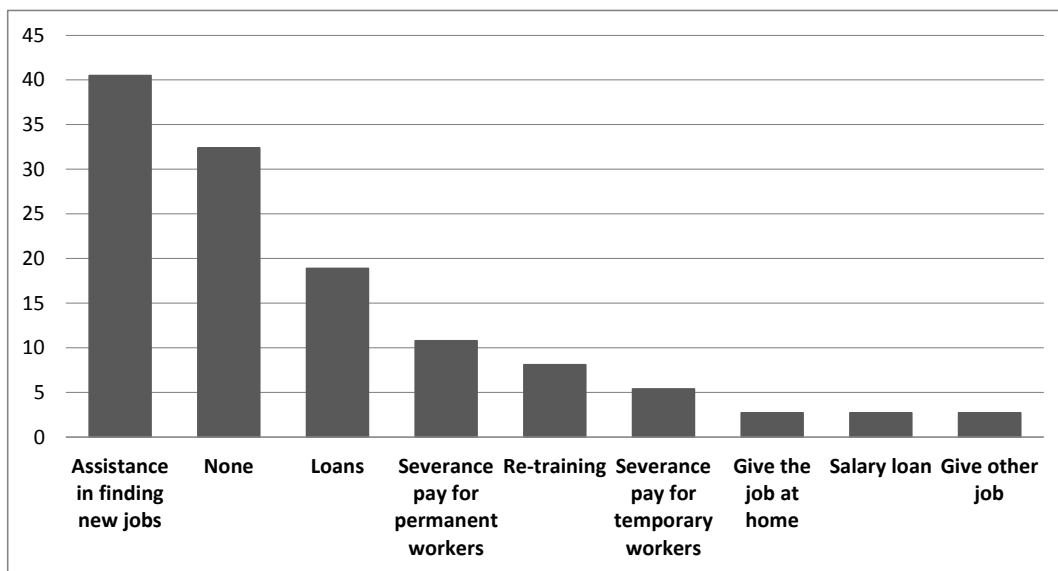
Moreover, male workers are predominant in the furniture industry, while workers in the textile and garment industries are mainly female. If the survey had been conducted for the garment industry instead of the furniture industry, a different picture would have emerged. Second, temporary workers are usually employed for certain periods when order volume is high. Most female workers are included in this category, though the percentage varied by enterprise, ranging from 10 to 70 percent. Some enterprises had only male temporary workers. Thus, when production slows down, they are no longer needed. Third, since skilled workers are not easy to find, especially in regions where there are many furniture producers but not many skilled workers available, those enterprises affected by a crisis usually hang on to their workers in the hope that the crisis is temporary.

The findings are also confirmed by what happened in Cirebon, as one of the surveyed regions. As discussed earlier, from 2005 to 2009, demand for Cirebon furniture declined by 50 percent. As a result, many workers in the furniture industry, especially women, are now without work. As a further consequence, in 2009, for the first time, Cirebon sent many women abroad looking for work. Many female workers who used to work in the industry are also now working as domestic helpers. There are two further implications of this development. First, as the average income of a domestic helper is usually lower than the income of an unskilled worker in the furniture industry depending on types of employment (e.g., temporary vs. permanent), poverty will increase as workers leave the furniture industry to become domestic helpers. Second, as average incomes for unskilled workers working abroad (e.g., Malaysia and in Middle East countries) are higher, female workers working abroad and their families will be better off.

**Figure 8. Types of affected workers by income reduction and reduced working hours**



**Figure 9. Type of support provided to workers in case of layoffs**



The situation, thus, depends on what unemployed women, temporary workers, and unskilled workers from the enterprises surveyed do. If they are not able to find other jobs, this will seriously affect poverty in the region. During the Suharto era from 1966 to 1997, the poverty rate declined considerably as annual economic growth increased significantly. But, during the 1997/98 crisis, the poverty rate increased significantly, mainly because many unskilled workers and female employees in large companies were out of work.

### CONCLUSION

This paper showed two important findings. First, the highest ranked adjustment measure to cope with the crisis was seeking out new customers or markets. This strategy adopted by the majority of the enterprises surveyed was based on the fact that the global crisis was a demand crisis, mainly from the US, Japan, and European countries most affected by the crisis. This was different from the 1997/98 Asian financial crisis, a supply-side crisis, which increased domestic production costs significantly.

Second, the most important types of labor adjustment taken by most of the respondents were reducing working time, followed by developing alternative work arrangements and laying off workers. Female workers, temporary workers, and unskilled production employees were most affected by these measures. For the laid off workers, the enterprises surveyed provided counselling/assistance in finding new jobs and loans and severance pay, although only for permanent workers.

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