

## Executive Summary

At present the structure of business trade, services and industrial activity, has changed dramatically. There are new kind of business in the economy, including the small scale industries and home industry which has a role in the economic growth of the country as a whole increased. Therefore, statistical data on basic information of the business is important and necessary for the public and private sector in policy formulation and development planning of economic and industry in both the national and provincial level, to increase competitiveness in the global trade arena. The National Statistical Office (NSO) proposed by the key government agencies, including the Office of Industry Economics, the Ministry of Industry, Office of the National Economic and Social Development Board, Bank of Thailand and the Ministry of Commerce, to conduct the Industrial Census every 5 years, there for, the basic information obtained by the census can be used for both government and private sectors in various aspects.

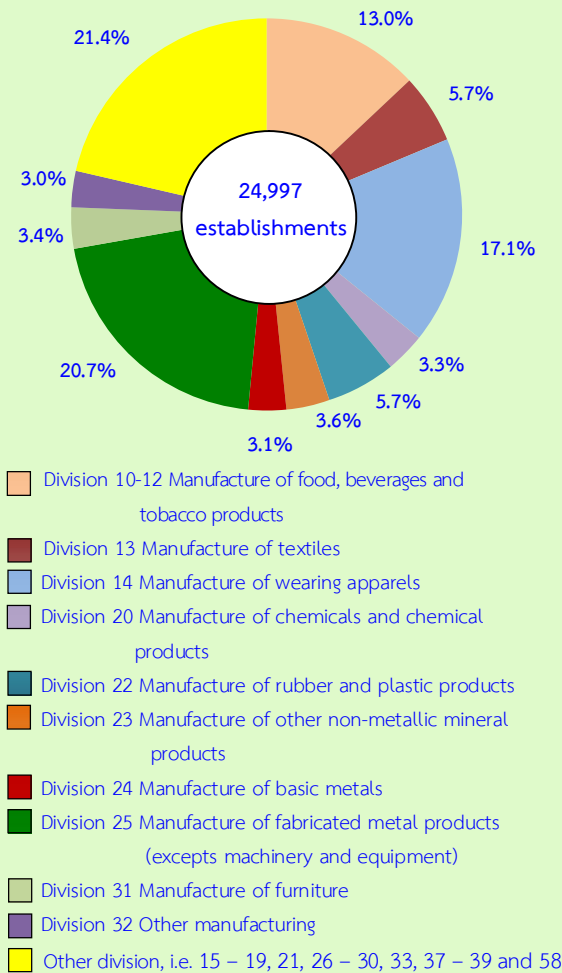
The NSO had carried The Business trade and Services Census for 3 times, in 1966 and 1988 and 2002. The Industrial Census had been conducted 3 times as well, in 1964 and 1997, in 2007. For the year 2012 will mature around 10 years for conducting the Census of Business trade and Services and 5 years for conducting the Census of Industrial. The NSO had integrated of such a census named “The 2012 Business trade and Industrial Census”.

The data presents in this report was the results of the 2012 Business and Industrial Census: Manufacturing Industry. The statistical methodology using for the establishments with 1 – 10 persons engaged were a sample survey and for the establishment with 11 persons engaged and over were completely enumerated. The enumeration stage, field work was conducted during May 1 to August 30, 2011. The data presented the operational information of manufacturing establishment in **Vicinity** in the year 2011 (January 1 – December 31, 2011) and classified by Thailand Standard Industrial Classifications (TSIC-2009). The main findings are as follows:

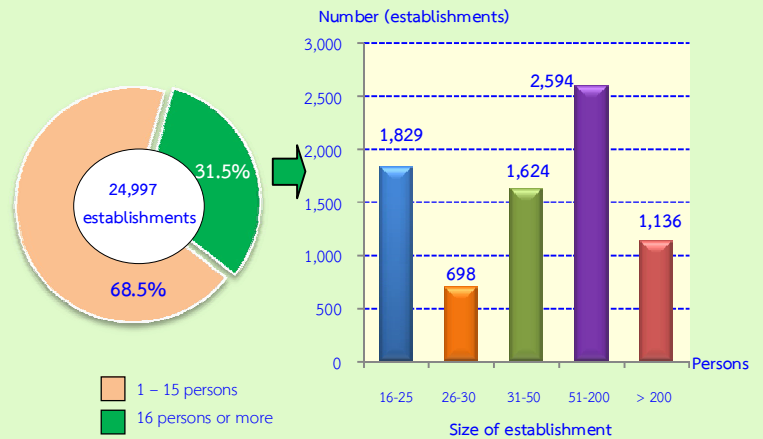
### **Number of establishments by division of industry**

The results of the 2012 Business and Industrial Census, there were totally 24,997 **manufacturing** establishments in the Vicinity. The highlight industries of this region were *manufacture of fabricated metal products (excepts machinery and equipment)* and *manufacture of wearing apparels*, which had the proportion, of about 20.7 and 17.1 percent respectively. The followings were *manufacture of food, beverages and tobacco products* (about 13.0 percent), *manufacture of textiles* and *manufacture of rubber and plastic products*, were very close proportion of about 5.7 percent. The other divisions of industry, not mentioned above, each division had less than 4.0 percent.

**Figure A Percentage of manufacturing establishments by division of industry**



**Figure B Number of manufacturing establishments by size of establishment (number of persons engaged)**



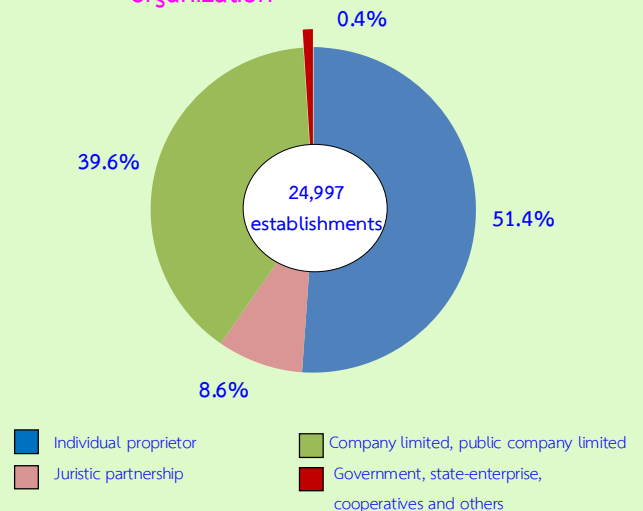
**Form of legal organization**

Most establishments (about 51.4 percent) were individual proprietor. The establishments, which were in the form of company limited, public company limited was about 39.6 percent. For those, which were juristic partnership and had proportions (about 8.6 percent) and government, state-enterprise, cooperatives and others (about 0.4 percent)

**Size of establishment**

Most of manufacturing establishments (about 17,116 establishments or 68.5 percent) were establishments with 1 – 15 persons engaged. The establishments with 16 persons or more were about 7,881 or 31.5 percent. Out of these, with 51 – 200 persons were about 2,594. Those with 16 – 25 persons were about 1,829. For those with 26 – 30 persons were about 698.

**Figure C Percentage of manufacturing establishments by form of legal organization**



### Form of economic organization

The manufacturing establishments in the Vicinity (about 93.4 percent) were in form of single unit. About 3.7 percent was an office branch or subsidiary and about 2.9 percent was head office.

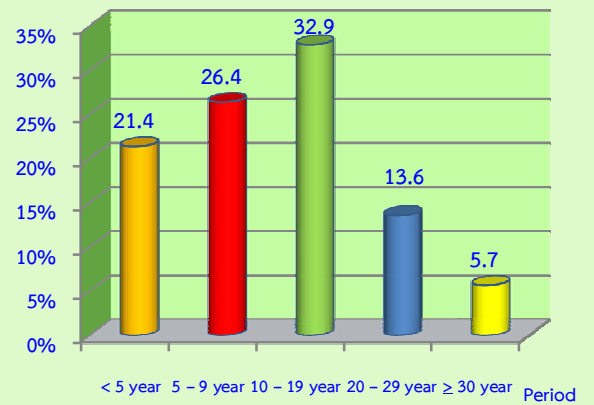
Figure D Percentage of manufacturing establishments by form of economic organization



### Period of operation

Most of the establishments (about 32.9 percent) have operated their business for 10 – 19 years. The establishments operated their business for 5 – 9 years and less than 5 years were about 26.4 and 21.4 percent respectively. The establishments operated their business for 20 – 29 years was about 13.6 percent. While the establishments operated their business for 30 years or more had the lowest proportion of about 5.7 percent of the total.

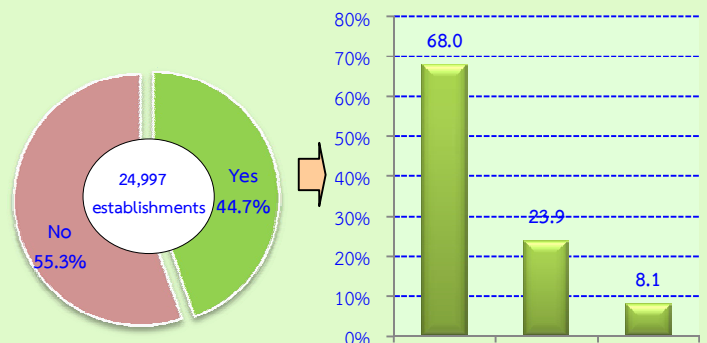
Figure E Percentage of manufacturing establishments by period of operation



### Registered capital

The number of manufacturing establishments in the Vicinity with registered were about 44.7 percent of the total. Out of these, most of them (about 68.0 percent) had less than 10 million baht of registered capital. Those with 10 – 99 million baht of registered were about 23.9 percent. The establishment with 100 million baht of registered and over was only 8.1 percent.

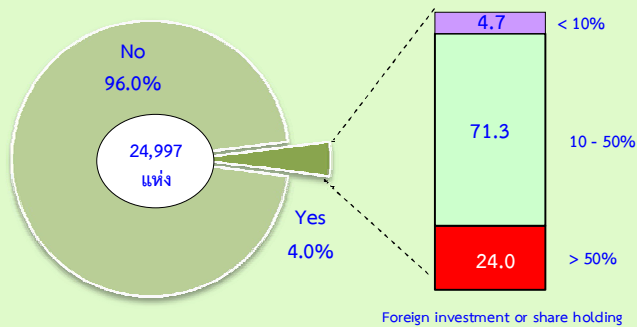
Figure F Percentage of manufacturing establishments by registered capital



## Foreign investment or share holding

For the foreign investment share holding in the Vicinity, about 96.0 percent of the corporate establishment (company limited and public company limited) had no foreign investment or share holding. For the establishments with foreign share holding about 4.0 percent did. Out of these, about 71.3 percent was between 10 - 50% of share holding and about 24.0 percent was over 50% of share holding. Those with less than 10% of share holding was 4.7 percent.

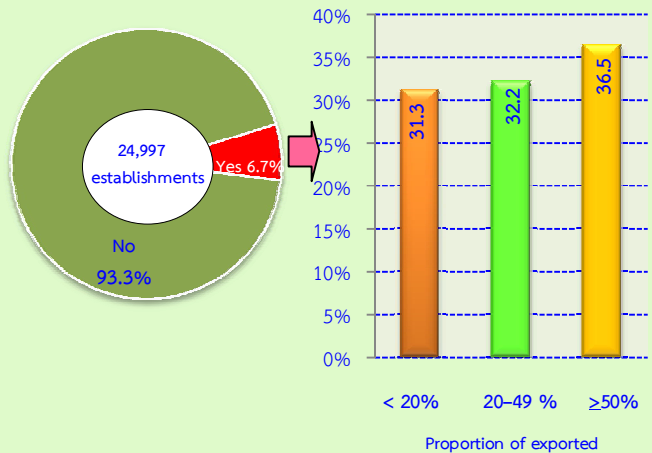
**Figure G Percentage of manufacturing establishments by foreign investment or share holding**



## Export

There were 6.7 percent of manufacturing establishments, which exported their goods produced. Out of these, about 36.5 percent, exported over 50% of the total sales of goods. About 32.2 percent of establishments exported between 20 - 49%. The rest of about 31.3 percent exported less than 20%.

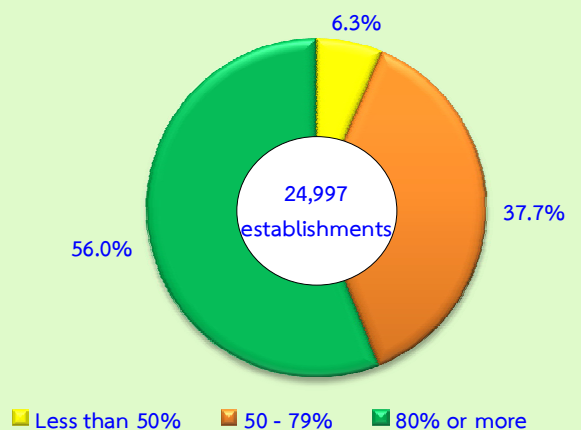
**Figure H Percentage of manufacturing establishments by export**



## Capacity utilization rate

The average capacity utilization rate in 2011 of manufacturing establishments was about 76.2%. The majority of manufacturing establishments (about 56.0 percent) had capacity utilization rate about 80% or more. The establishment with the capacity utilization rate between 50 - 79% was about 37.7 percent. While those with capacity utilization rate less than 50% was about 6.3 percent.

**Figure I Percentage of manufacturing establishments by capacity utilization rate**

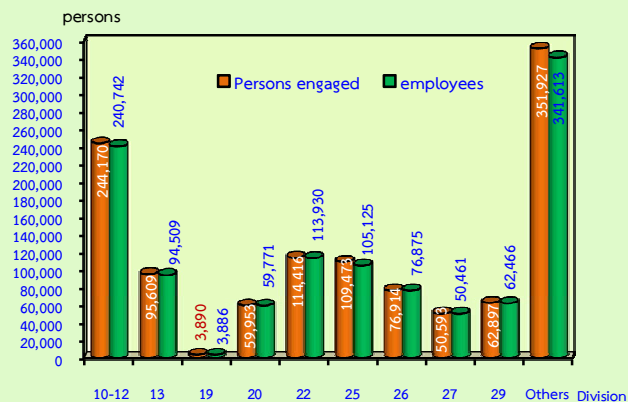


**Capacity Utilization** Refers to the proportion of production and capacity

## Number of persons engaged and employees

In 2011 the workers of the manufacturing establishments in the Vicinity were totally 1.17 million persons. In term of employees, there were totally 1.15 million persons. Most of them about 21.0 percent worked in *manufacture of food, beverages and tobacco products*. Followed by those worked in *manufacture of rubber and plastic products* and *manufacture of fabricated metal products (excepts machinery and equipment)* were about 9.9 and 9.2 percent respectively. The other division of industry not mentioned above, each division had less than 9.0 percent.

Figure J Number of persons engaged and employees of manufacturing establishments by division of industry



Note : Persons engaged refer to owner or juristic partnerships unpaid worker and employees.

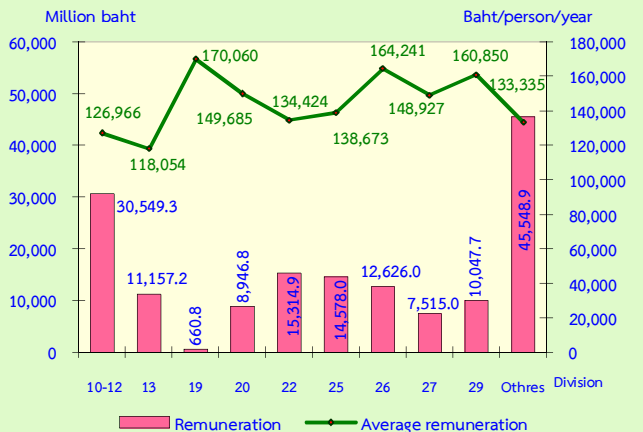
### Division of industry:

- Division 10-12 Manufacture of food , beverages and tobacco products
- Division 13 Manufacture of textiles
- Division 19 Manufacture of coke and refined petroleum products
- Division 20 Manufacture of chemicals and chemical products
- Division 22 Manufacture of rubber and plastic products
- Division 25 Manufacture of fabricated metal products (excepts machinery and equipment)
- Division 26 Manufacture of computer, electronic and optical products
- Division 27 Manufacture of electrical equipment
- Division 29 Manufacture of motor vehicles, trailers and semi-trailers
- Other division, i.e. 14 – 18, 21, 23 – 24, 28, 30 – 33, 37 – 39 and 58

## Remuneration

In 2011 the employees working in manufacturing establishments in the Vicinity received the total remuneration about 156,967.2 million baht or 136,567 baht per person annually. The employees engaged in *manufacture of coke and refined petroleum products* received the highest annual remuneration, of about 170,060 baht per person. Those employees engaged in *Sewerage, waste collection, treatment and disposal activities; materials recovery and remediation activities and other waste management services* received the lowest annual remuneration, of about 99,861 baht per persons.

Figure K Remuneration of manufacturing establishments by division of industry



### Division of industry:

- Division 10-12 Manufacture of food , beverages and tobacco products
- Division 13 Manufacture of textiles
- Division 19 Manufacture of coke and refined petroleum products
- Division 20 Manufacture of chemicals and chemical products
- Division 22 Manufacture of rubber and plastic products
- Division 25 Manufacture of fabricated metal products (excepts machinery and equipment)
- Division 26 Manufacture of computer, electronic and optical products
- Division 27 Manufacture of electrical equipment
- Division 29 Manufacture of motor vehicles, trailers and semi-trailers
- Other division, i.e. 14 – 18, 21, 23 – 24, 28, 30 – 33, 37 – 39 and 58

## Value of gross output, intermediate consumption and value added

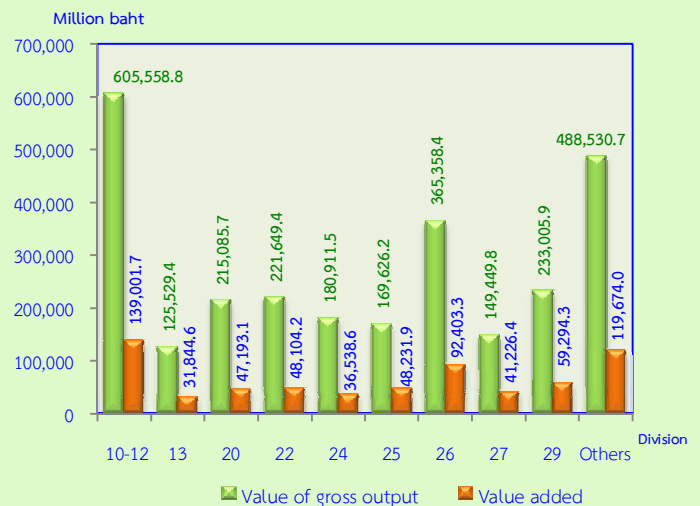
In 2011, the value of gross output of manufacturing establishments was totally 2.8 trillion baht. The intermediate consumption and value added were totally 2.1 trillion baht and 663,598.2 million baht respectively. Comparing the value added to value of gross output was about 24.1 percent.

For the average value of gross output were about 110.2 million baht per establishment and 2.4 million baht per person. In terms of the average value added, these were about 26.5 million baht per establishment and 567,254 baht per person respectively.

Considering by division of industry, it was found that establishments engaged in *manufacture of computer, electronic and optical products* had the highest average value of gross output per establishment about 1,217.9 million baht and average value of gross output per person about 4.8 million baht.

For the establishments engaged in *manufacture of computer, electronic and optical products* had the highest average value added per establishment and per person had about 308.0 million baht and 1.2 million baht respectively. The following engaged in *manufacture of electrical equipment* had average value of gross output, and value added per person, of about 98.2 million baht and 814,864 baht respectively.

Figure L Value of gross output and value added of manufacturing establishments by division of industry



**Value added** = Value of gross output – Intermediate consumption

**Value of gross output** refers to receipts of establishment in 2006

**Intermediate consumption** refers to all expenses on the production process of goods or services in the establishment in 2011

### Division of industry:

Division 10-12 Manufacture of food, beverages and tobacco products

Division 13 Manufacture of textiles

Division 20 Manufacture of chemicals and chemical products

Division 22 Manufacture of rubber and plastic products

Division 24 Manufacture of basic metals

Division 25 Manufacture of fabricated metal products (excepts machinery and equipment)

Division 26 Manufacture of computer, electronic and optical products

Division 27 Manufacture of electrical equipment

Division 29 Manufacture of motor vehicles, trailers and semi-trailers

Other division, i.e. 14 – 19, 21, 23, 28, 30 – 33, 37 – 39 and 58

## Data comparison of manufacturing establishments during 5 years

Comparing the data of the 2012 Business and Industrial Census and the 2007 Industrial Census, which the operation period was of the year in 2011 and 2006, the results showed that number of manufacturing establishment decreased by 3.8 percent and

number of persons engaged decreased by 5.8 percent, while the average number of person engaged per establishment decreased by 1.9 percent.

In terms of employment, number of employees and average number of employees per establishment decreased about 5.2 and 1.5 percent respectively and the annual remuneration during 5 year increased by 9.4 percent.

For the value of gross output, intermediate consumption and value added of manufacturing establishments during 5 year increased by 14.0, 15.1 and 10.7 percent respectively.

The performance of establishments in the Vicinity during 5 years ago has gradually grown due to the world economy slowed down and flood crisis.

**Table A Principal data of manufacturing establishments in year 2006 and 2011**

Data items	2006	2011	% Change
<b>Number of establishments (Establishments)</b>	<b>25,995</b>	<b>24,997</b>	<b>-3.8</b>
<b>Number of persons engaged (Persons)</b>	<b>1,241,219</b>	<b>1,169,843</b>	<b>-5.8</b>
<i>Average establishment (Persons)</i>	47.7	46.8	-1.9
<b>Number of employees (Persons)</b>	<b>1,212,904</b>	<b>1,149,377</b>	<b>-5.2</b>
<i>Average establishment (Persons)</i>	46.7	46.0	-1.5
<b>Remuneration (Million baht)</b>	<b>143,462.2</b>	<b>156,967.2</b>	<b>9.4</b>
<i>Average annual per employee (Baht)</i>	118,279.9	136,567	<b>15.5</b>
<b>Value of gross output (Million baht)</b>	<b>2,415,822.9</b>	<b>2,755,009.2</b>	<b>14.0</b>
<i>Average per establishment (Thousand baht)</i>	92,934.1	110,213.6	18.6
<i>Average per person (Thousand baht)</i>	1,946.3	2,355.0	21.0
<b>Intermediate consumption (Million baht)</b>	<b>1,816,616.4</b>	<b>2,091,411.0</b>	<b>15.1</b>
<i>Average per establishment (Thousand baht)</i>	69,883.3	83,666.5	19.7
<i>Average per person (Thousand baht)</i>	1,463.6	1,787.8	22.2
<b>Value added (Million baht)</b>	<b>599,206.5</b>	<b>663,598.2</b>	<b>10.7</b>
<i>Average per establishment (Thousand baht)</i>	23,050.8	26,547.1	15.2
<i>Average per person (Thousand baht)</i>	482.8	567.3	17.5

#### **Data summary and recommendation**

The results of the 2012 Business and Industrial Census show that there were totally 24,997 manufacturing establishments in the Vicinity. Most of them engaged in establishments with 1 – 15 persons, of about

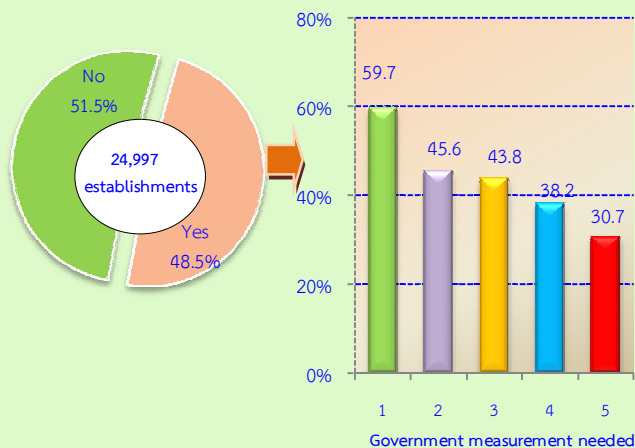
68.5 percent. The highlight industry was *manufacture of fabricated metal products (excepts machinery and equipment)* (about 20.7 percent). There were totally 1.17 million persons and out of these, about 1.15 million persons were employees. They received the

annual remuneration, of about 136,567 baht per person. The manufacturing establishments contributed value of gross output, intermediate consumption and value added of about 2.8, 2.1 trillion baht and 663,598.2 million baht respectively.

- **Governments measurement needed**

For the manufacturing establishments in the Vicinity did not need government measurement about 51.5 percent, the rest of about 48.5 percent did. The top 5 measurements needed are reducing production cost (about 59.7 percent), reducing taxes or waiving imported tax (about 45.6 percent), providing the low interest of loan (about 43.8 percent), investment promotion for the establishments (about 38.2 percent) and increasing the credit facility (about 30.7 percent).

**Figure M Percentage of manufacturing establishments by government measurement needed the top 5**



**Note:** The establishment can be done by more than 1

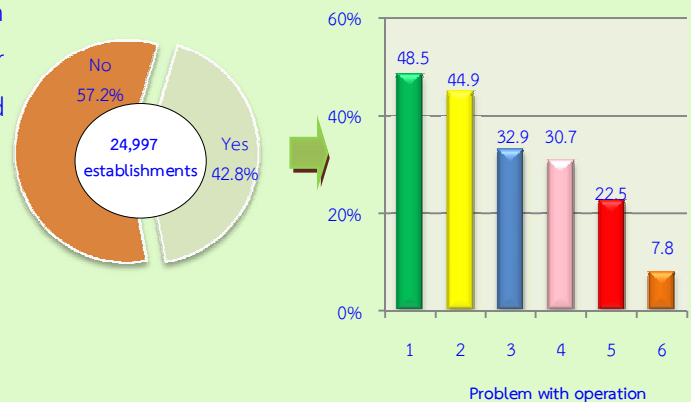
**Government measurement needed:**

1. Reduce production cost
2. Reduce taxes or exclude
3. Find out the low interest of loan
4. Investment promotion to operators
5. Increase in the facility

- **Problem with operation**

The establishment, about 42.8 percent reported the problem their operation. Most of them about 48.5 percent labor shortage. The followings were inadequate capital, product marketing and raw material shortages used in the production were about 44.9, 32.9 and 30.7 percent respectively. While the uncertainty of government trade policy was about 22.5 percent.

**Figure N Percentage of manufacturing establishments by problem with operation**



**Note:** The establishment can be done by more than 1

**Problem with operation:**

1. Labor shortage
2. Inadequate capital
3. Product marketing
4. Raw material shortages used in the production
5. Uncertainty of government trade policy
6. Other