

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 **Northeastern region** in the year 2011 (January 1 – December 31, 2011) and classified by Thailand Standard Industrial Classifications (TSIC-2009). The main findings are as follows:

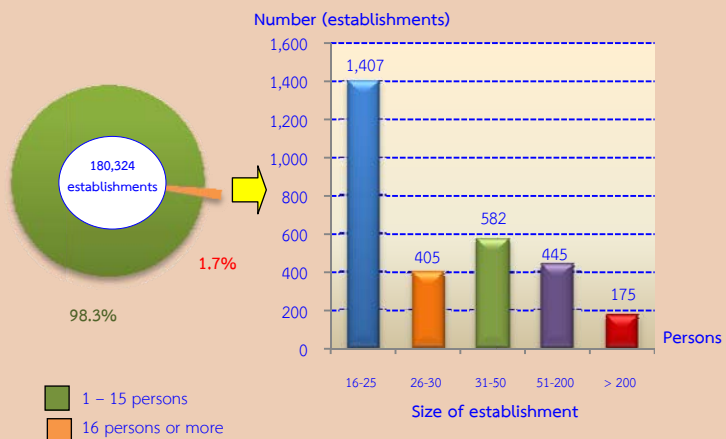
Number of establishments by division of industry

The results of the 2012 Business and Industrial Census, there were totally 180,324 **manufacturing** establishments in the Northeastern region. The highlight industries of this region were *manufacture of food products* and *manufacture of textiles*. There were about 34.4 and 24.5 percent respectively. The followings were *manufacture of wood and products of wood and cork (except furniture)*; *manufacture of articles of straw and plaiting materials* (about 15.6 percent), *manufacture of wearing apparels* (about 11.7 percent) and *other manufacture* (about 4.0 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 establishments (number of persons engaged)



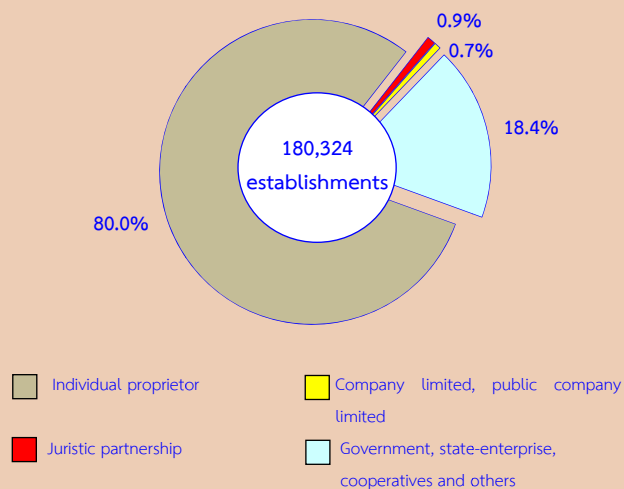
Form of legal organization

Most establishments (about 80.0 percent) were individual proprietor. The establishments, which were in the form of government, state-enterprise, cooperatives and others was about 18.4 percent. For those, which were juristic partnership and company limited, public company limited had proportions, of about 0.9 and 0.7 percent respectively.

Size of establishment

Most of manufacturing establishments (about 98.3 percent or 177,310 establishments) were establishments with 1 – 15 persons engaged. The establishments with 16 persons or more were about 1.7 percent or 3,014 establishments of this number, establishments with 16 – 25 persons was about 1,407 establishments. The establishments with 31 – 50 persons, 51 – 200 persons and 26-30 persons were about 582 445 and 405 establishments respectively. The establishments with more than 200 persons was about 175 establishments.

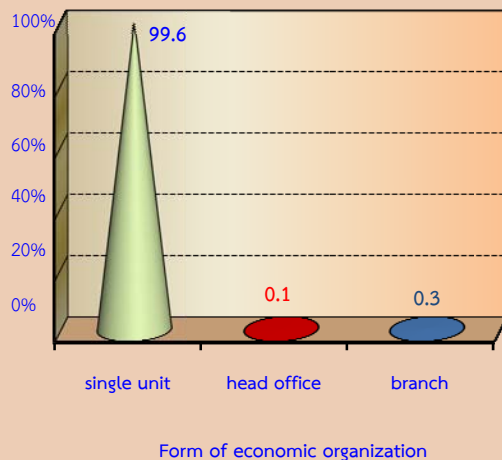
Figure C Percentage of manufacturing establishments by form of legal organization



Form of economic organization

The manufacturing establishments in the Northeastern region (about 99.6 percent) were in form of single unit. About 0.3 percent was an office branch or subsidiary and about 0.1 percent was head office.

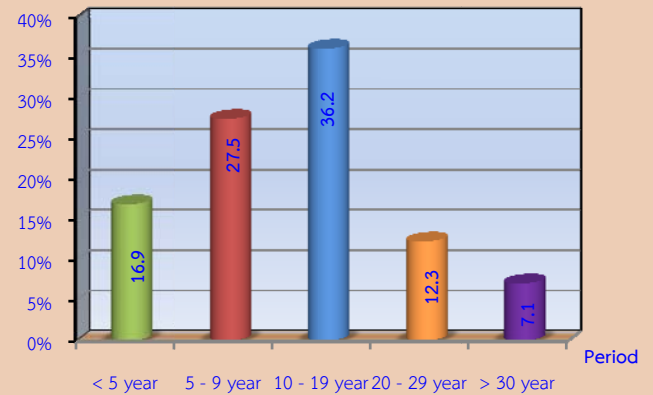
Figure D Percentage of manufacturing establishments by form of economic organization



Period of operation

Most of the establishments (about 36.2 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 27.5 and 16.9 percent respectively. The establishments operated their business for 20 – 29 years was about 12.3 percent. While the establishments operated their business for 30 years or more had the lowest proportion of about 7.1 percent of the total.

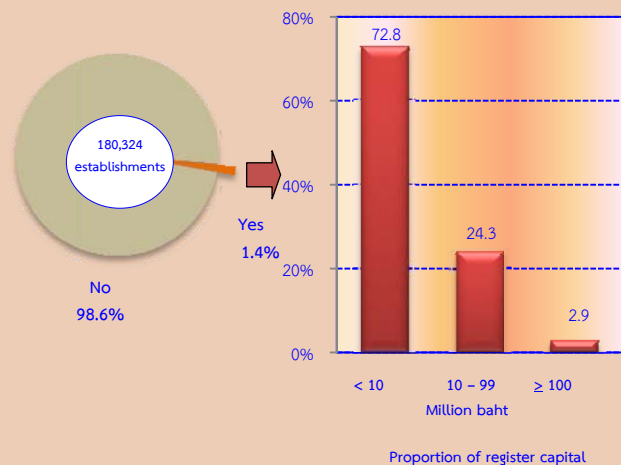
Figure E Percentage of manufacturing establishments by period of operation



Register capital

The number of manufacturing establishments in the Northeastern region with registered were about 1.4 percent of the total. Out of these, most of them (about 72.8 percent) had less than 10 million baht of registered capital. Those with 10 – 99 million baht of registered were about 24.3 percent. The establishment with 100 million baht of registered and over was only 2.9 percent.

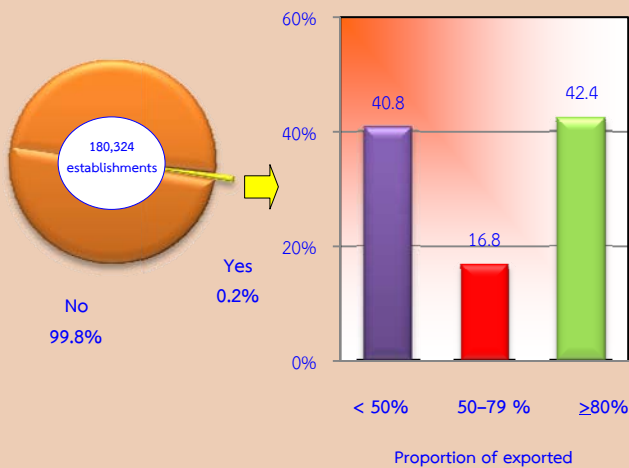
Figure F Percentage of manufacturing establishments by register capital



Export

For the export of goods of manufacturing establishments, there were 0.2 percent. Out of these, about 42.4 percent. Exported with over 80% of the total sales of goods produced about 40.8 percent had the proportion of exported less than 50%. The rest of about 16.8 percent with exported between 50-79%

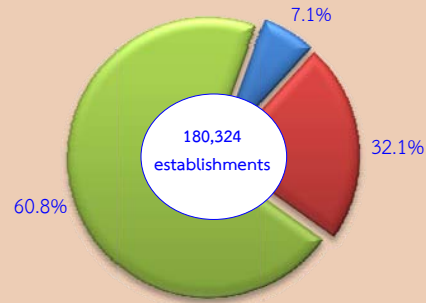
Figure G Percentage of manufacturing establishments by export



Capacity utilization rate

The average capacity utilization rate in 2011 of manufacturing establishments was about 78.5%. The majority of manufacturing establishments (about 60.8 percent) had capacity utilization rate about 80% or more. The establishment with the capacity utilization rate between 50 – 79% was about 32.1 percent. While those with capacity utilization rate less than 50% was about 7.1 percent.

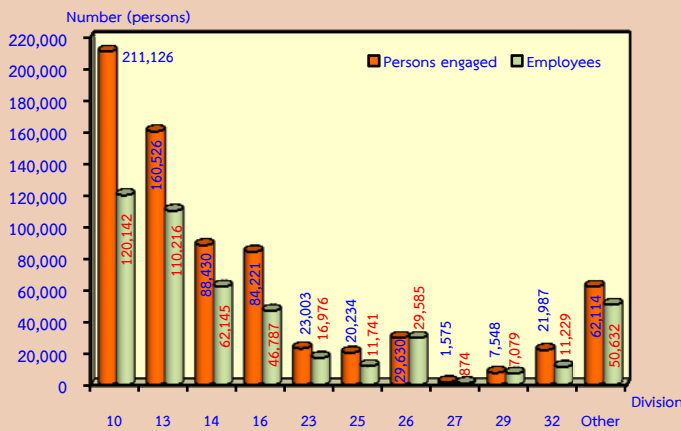
Figure H Percentage of manufacturing establishments by capacity utilization rate



Number of persons engaged and employees

In 2011 the workers of the manufacturing establishments in the Northeastern region were totally 710,394 persons. In term of employees, there were totally 467,405 persons. Most of them about 25.7 percent worked in *manufacture of food products*. Followed by those worked in *manufacture of textiles* about 23.6 percent, *manufacture of wearing apparels and manufacture of wood and products of wood and cork (except furniture); manufacture of articles of straw and plaiting materials* about 13.3 and 10.0 percent respectively. The other division of industry not mentioned above, each division had less than 7.0 percent.

Figure I 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:

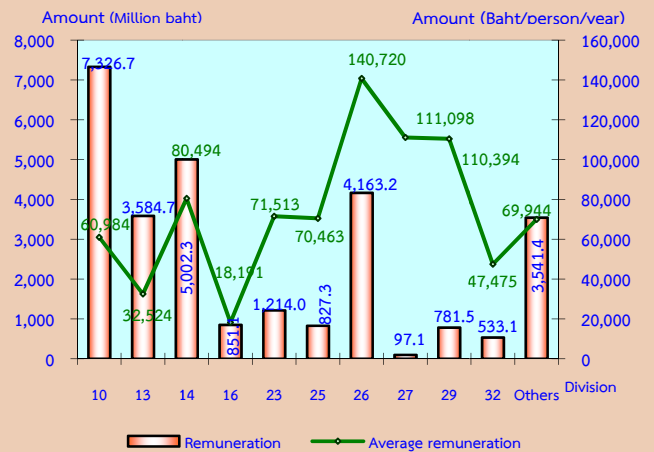
- Division 10 Manufacture of food products
- Division 13 Manufacture of textiles
- Division 14 Manufacture of wearing apparels
- Division 16 Manufacture of wood and products of wood and cork (except furniture); manufacture of straw and plaiting materials
- Division 23 Manufacture of other non-metallic mineral 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
- Division 32 Other manufacturing Division
- Other division, i.e. 11 – 12, 15, 17 – 22, 24, 28, 30 – 31, 33, 37 – 39 and 58

Remuneration

In 2011 the employees working in manufacturing establishments in the Northeastern region received the total remuneration about 27,922.3 million baht or 59,739 baht per person annually. The employees engaged in *manufacture of computer, electronic and optical products and manufacture of electrical equipment* received annual remuneration the

highest, of about 140,720 baht per person. Followed by those employees engaged in *manufacture of electrical equipment and manufacture of motor vehicles, trailers and semi-trailers* received the annual remuneration about 111,098 and 110,394 baht per persons respectively. The *manufacture of wood and products of wood and cork (except furniture); manufacture of articles of straw and plaiting materials* received the lowest annual remuneration, of about 18,191 baht per persons.

Figure J Remuneration of manufacturing establishments by division of industry



Division of industry:

- Division 10 Manufacture of food products
- Division 13 Manufacture of textiles
- Division 14 Manufacture of wearing apparels
- Division 16 Manufacture of wood and products of wood and cork (except furniture); manufacture of straw and plaiting materials
- Division 23 Manufacture of other non-metallic mineral 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
- Division 32 Other manufacturing Division
- Other division, i.e. 11 – 12, 15, 17 – 22, 24, 28, 30 – 31, 33, 37 – 39 and 58

Value of gross output, intermediate consumption and value added

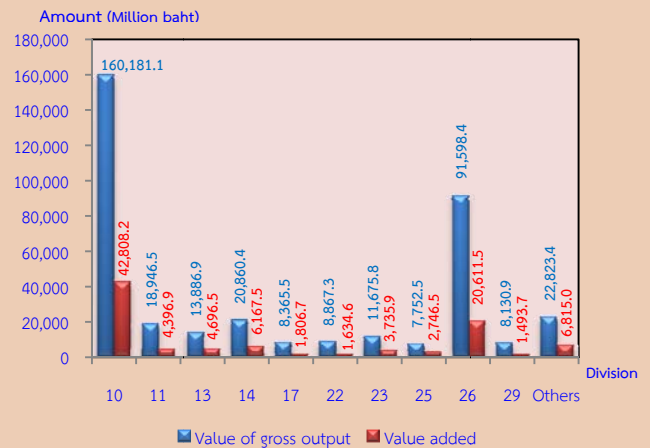
In 2011, the value of gross output of manufacturing establishments was totally 373,088.7 million baht. The intermediate consumption and value added were totally 276,175.5 and 96,913.1 million baht respectively. Comparing the value added to value of gross output was about 26.0 percent.

For the average value of gross output were about 2.1 million baht per establishment and 525,186 baht per person. In terms of the average value add, these were about 537,440 baht per establishment and 136,422 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 1,453.9 million baht and average value of gross output per person about 3.1 million baht respectively.

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 327.2 million baht and 695,629 baht respectively. The following engaged in *manufacture of paper and paper products* had average value of gross output and average value added per person, of about 43.0 million baht and 833,733 baht respectively.

Figure K 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 Manufacture of food products

Division 11 Manufacture of beverages

Division 13 Manufacture of textiles

Division 14 Manufacture of wearing apparels

Division 17 Manufacture of paper and paper products

Division 22 Manufacture of rubber and plastic products

Division 23 Manufacture of other non-metallic mineral products

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

Division 26 Manufacture of computer, electronic and optical products

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

Other division, i.e. 12, 15 – 16, 18 – 21, 24, 27 – 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 16.2 percent and number of persons engaged increased by 10.4 percent, while the average number of person engaged per establishment increased by 30.0 percent.

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

Data items	2006	2011	% Change
Number of establishments (Establishments)	215,295	180,324	-16.2
Number of persons engaged (Persons)	643,526	710,394	10.4
<i>Average establishment (Persons)</i>	<i>3.0</i>	<i>3.9</i>	<i>30.0</i>
Number of employees (Persons)	365,550	467,405	27.9
<i>Average establishment (Persons)</i>	<i>1.7</i>	<i>2.6</i>	<i>52.9</i>
Remuneration (Million baht)	21,847.2	27,922.3	27.8
<i>Average annual per employee (Baht)</i>	<i>59,765.4</i>	<i>59,738.9</i>	<i>-0.1</i>
Value of gross output (Million baht)	279,607.1	373,088.7	33.4
<i>Average per establishment (Thousand baht)</i>	<i>1,298.7</i>	<i>2,069.0</i>	<i>59.3</i>
<i>Average per person (Thousand baht)</i>	<i>434.5</i>	<i>525.2</i>	<i>20.9</i>
Intermediate consumption (Million baht)	208,654.8	276,175.5	32.4
<i>Average per establishment (Thousand baht)</i>	<i>969.2</i>	<i>1,531.6</i>	<i>58.0</i>
<i>Average per person (Thousand baht)</i>	<i>324.2</i>	<i>388.8</i>	<i>19.9</i>
Value added (Million baht)	70,952.3	96,913.1	36.6
<i>Average per establishment (Thousand baht)</i>	<i>329.6</i>	<i>537.4</i>	<i>63.0</i>
<i>Average per person (Thousand baht)</i>	<i>110.2</i>	<i>136.4</i>	<i>23.8</i>

In terms of employment, number of employees and average number of employees per establishment increased about 27.9 and 52.9 percent respectively and the annual remuneration during 5 year increased by 27.8 percent.

For the value of gross output, intermediate consumption and value added of manufacturing establishments during 5 year increased by 33.4 32.4 and 36.6 percent respectively.

Result operation of establishment in the Northern region during 5 years ago has gradually grown because, the world economy slowed down due to the flood crisis in the Central region causing the entrepreneur relocation of production base to the Northeastern

region, specially manufacture of sugar and alcohol, that cause employment increasing.

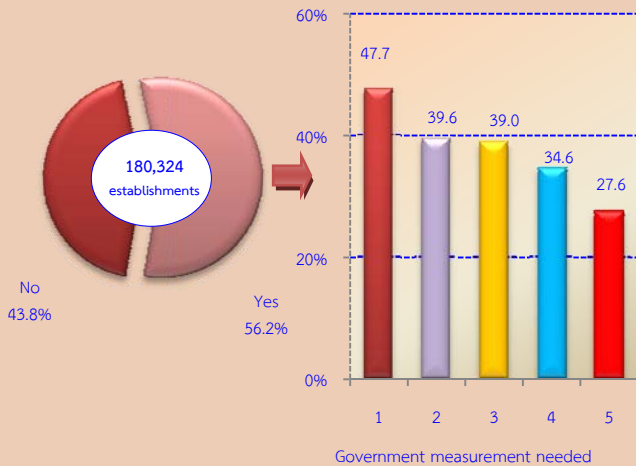
Data summary and recommendation

The results of the 2012 Business and Industrial Census show that there were totally 180,324 manufacturing establishments in the Northeastern region. Most of them engaged in establishments with 1 – 15 persons, of about 98.3 percent. The highlight industry was *manufacture of food products* (about 34.4 percent). There were totally 710,394 persons and out of these, about 467,405 persons were employees. They received the annual remuneration, of about 59,739 baht per person. The manufacturing establishments contributed value of gross output, intermediate consumption and value added of about 373,088.7, 276,175.5 and 96,913.1 million baht respectively.

- **Governments measurement needed**

For the manufacturing establishments in the Northeastern region had no government measurement needed (about 43.8 percent), the rest of about 56.2 percent did. The government measurement needed the top 5 series i.e. investment promotion to operators (about 47.7 percent), reduce production cost (about 39.6 percent), find out the low interest of loan (about 39.0 percent), expand the market for busy purchase (about 34.6 percent), provide training and skills employee development (about 27.6 percent) respectively.

Figure L Percentage of manufacturing establishments by government measurement needed the top 5 series



Note: The establishment can be done by more than 1

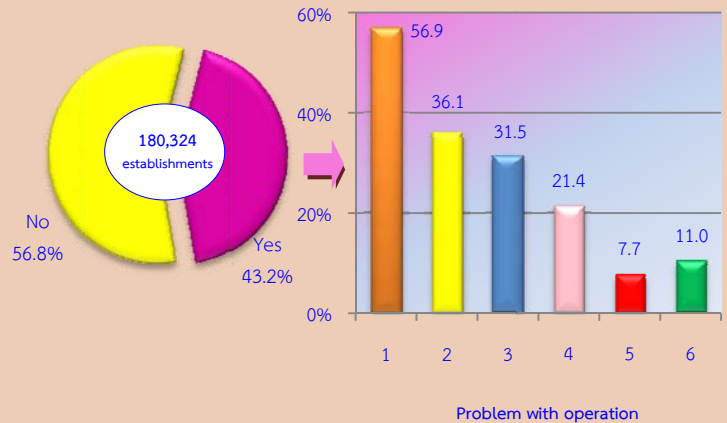
Government measurement needed:

1. Investment promotion to operators
2. Reduce production cost
3. Find out the low interest of loan
4. Expand the market for buy purchase
5. Provide training and skills employee development

- **Problem with operation**

The establishment, about 43.2 percent reported had problem with operation. Most of them about 56.9 percent inadequate capital problems. The followings were product market, raw material shortages used in the production and labor shortage were about 36.1, 31.5 and 21.4 percent respectively. While the uncertainty of government trade policy was about 7.7 percent.

Figure M Percentage of manufacturing establishments by problem with operation



Note: The establishment can be done by more than 1

Problem with operation:

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