APPENDIX A
Methodology

1. Sample Design

The stratified random sampling was adopted for the survey. Bangkok and each region was constituted a stratum. The sampling units were establishments.

1.1 Stratification

Bangkok and each region was constituted a stratum. There were altogether 6 strata. Each stratum was classified by TSIC (Thailand Standard Industrial Classification: TSIC 2009) at activity level into 309 sub-stratum and in each sub-stratum was divided into 6 sizes according to number of persons engaged as follows:

Size of establishment	1	2	3	4	5	6
Number of persons engaged	1 – 15	16 – 25	26 – 30	31 – 50	51 – 200	> 200

1.2 Selection of Sampling Unit

The sample selection of establishments were done by simple random sampling and performed separately and independently in each sub-stratum and size of establishments. The total sample were 40,120 from 1,715,567 establishments.

The total number of sample establishments selected for enumeration by region and size was as follows:

Region	Total	Size of establishment					
		1	2	3	4	5	6
Bangkok	10,637	5,117	1,691	772	1,233	1,214	610
Vicinity	5,685	3,914	670	243	379	389	90
Central	6,286	4,379	748	241	432	364	122
North	5,923	4,382	637	204	371	280	49
Northeast	5,881	4,294	670	207	324	315	71
South	5,708	4,123	621	210	343	304	107
Whole kingdom	40,120	26,209	5,037	1,877	3,082	2,866	1,049

2. Estimation method

The survey results were presented at regional level namely Bangkok, Vicinity (Samut Prakan, Nonthaburi, Pathum Thani, Nakhon Pathom and Samut Sakhon), the North, the Northeast and the South. All the establishments were classified by TSIC at activity level and divided into 6 sizes according to number of persons engaged as follows:

Size of establishment	1	2	3	4	5	6
Number of persons engaged	1 – 15	16 – 25	26 – 30	31 – 50	51 – 200	> 200

Let,

q = 1 , 2 , 3 , ... , n_{hmp} (sample establishment)

p = 1 , 2 , 3 , ... , 12 (size of establishment)

m = 1 , 2 , 3 , ... , 309 (activity)

h = 1 , 2 , 3 , 4 , 5 , 6 (region)

2.1 The estimation total number of characteristics X of the establishments for the p^{th} size, m^{th} activity, h^{th} region was based on the formula:

$$\hat{X}_{hmp} = \sum_{q=1}^{n_{hmp}} w_{hmp} x_{hmpq}$$

where

x_{hmpq} is the value of characteristics X of the establishments for the q^{th} establishment, p^{th} size, m^{th} activity, h^{th} region

w_{hmp} is the weighting factor of the establishment for the p^{th} size, m^{th} activity, h^{th} region. Where

$$w_{hmp} = \frac{N_{hmp}}{n_{hmp}}$$

N_{hmp} is the total number of the establishments for the p^{th} size, m^{th} activity, h^{th} region.

n_{hmp} is the total number of the sample establishments for the p^{th} size, m^{th} activity, h^{th} region.

3. Data collection

The interviewing method was employed in data collection. The enumerators who are permanent and temporary staff of the National Statistical Office were sent out to interview the owners or the entrepreneurs of the sampled business establishments during April –July 2014

4. Errors of the data

Data presented in this report might be subject to sampling and non-sampling errors. For instance, errors from the imputation for missing values and non-response, intentional misreporting and errors arising at coding and data entry stages. However, the NSO tried its best to minimize such errors, thus the data should be used with appropriate cautions.

5. In round figures

The summation of each amount may not equal to the total due to rounding.