STATISTICAL TABLES

Table A. Total Sales Generated from e-Commerce Transactions and Growth Rate by Industry Group, MIMAROPA Region: 2019-2021

Industry Section from the 2009 PSIC[1/]	Total Sales (in Million Philippine Pesos)			Growth Rate (in Percent)	
	2020	2021	2022	2022 / 2021	2020 / 2019
Economy-wide	**16.74**		**144,81**	**-17.1**	**- 96.6**
Agriculture, Forestry and Fishing	**-**	**-**	**-**	*	*
A Agriculture, Forestry and Fishing	-	-	-	*	*
Industry	**0.09**		**7,709**	**- 100.0**	*
B Mining and Quarrying	-	-	-	*	*
C Manufacturing	0.09		-	- 100.0	*
D Electricity, Gas, Steam and Air Conditioning Supply	-	-	-	*	*
E Water Supply; Sewerage, Waste Management and Remediation Activities	-	-	-	*	*
F Construction	-	-	-	*	*
Services	**16.65**	**174.70**	**137.09**	**949.0**	**- 96.6**
G Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	-	0.02	239,879.2	*	*
H Transportation and Storage	-	-	-	*	*
I Accommodation and Food Service Activities	15.60	174.68		1,019.7	- 96.8
J Information and Communication	-	-	-	*	*
K Financial and Insurance Activities	-	-	-	*	*
L Real Estate Activities	-	-	-	*	*
M Professional, Scientific and Technical Activities	-	-	-	*	*
N Administrative and Support Service Activities	-	-	-	*	*
P Education	-	-	-	*	*
Q Human Health and Social Work Activities	-	-	-	*	*
R Arts, Entertainment, and Recreation	1.05		-	- 100.0	*
S Other Service Activities	-	-	-	*	*

Notes: Cell with a dash (-) entry means zero.
      Asterisk (*) in the growth rate indicates a reported PhP 0.00 sales in the previous year.
      1/ 2009 Philippine Standard Industry Classification
Source: Philippine Statistics Authority, *2019-2021 Annual Survey of Philippine Business and Industry*

Table C. Total Sales Generated from e-Commerce Transactions and Growth Rate by Employment Grouping, MIMAROPA Region: 2019-2021

Employment Grouping	Total Sales (in Million Philippine Pesos)			Growth Rate (in percent)		
	2020	2021	2022	2022 / 2021		2020 / 2019
All Employment Groupings	**16.74**	**174.70**	**144.81**	**-17.1**	**943.4**	**- 96.6**
Micro	1.14	1.14	8,009	457.0	25.7	*
Small	-	173.26	136,798	-21.10	*	- 100.0
Medium	-	-	-		*	- 100.0
Large	15.60	-	-	- 100.0		- 87.1

Notes: Cell with a dash (-) entry means zero.

Asterisk (*) in the growth rate indicates a reported PhP 0.00 sales in the previous year.

Source: Philippine Statistics Authority, *2019-2021 Annual Survey of Philippine Business and Industry*

TECHNICAL NOTES
2022 Annual Survey of Philippine Business and Industry

I.   Introduction

I.1. Background of the Survey

The Annual Survey of Philippine Business and Industry (ASPBI), one of the designated statistical activities of the Philippine Statistics Authority (PSA), generates essential statistics for economic planning and analysis. It is specifically designed to collect and generate information on the levels, structure, performance, and trends of economic activities of the formal sector of the country's economy.

The 2022 ASPBI is the 50th in the series of annual surveys of establishments in the country. It was conducted nationwide in April 2022 with 2022 as reference period. The conduct of the 2022 ASPBI is authorized under Republic Act No. 10625, known as the Philippine Statistical Act of 2013, which mandates the PSA to collect, compile, analyze, and publish statistical information relating to the country's economic condition.

I.2. Objectives

The 2022 ASPBI aims to collect and generate information on the levels, structure, performance, and trends of economic activities of the formal sector of the economy for the year 2021. Specifically, the 2022 ASPBI aims to:

1. collect and generate detailed information on employment, revenue, expense, inventories, tangible fixed assets, intangible assets, and total assets of the establishments,
2. generate estimates for other economic indicators such as value added, average compensation, and other indicators which are necessary to evaluate the performance of industries at the national and regional levels,
3. generate statistics for micro, small, and medium establishments (MSME) where identification of MSME is based on total employment, and
4. gather pertinent information for the updating of the sampling frame of establishment-based surveys.

I.4. Scope and Coverage

The 2022 ASPBI covered establishments engaged in 18 sections classified according to the 2019 Updates to the 2009 Philippine Standard Industrial Classification (PSIC), namely:

1. Agriculture, Forestry, and Fishing (A)
2. Mining and Quarrying (B)
3. Manufacturing (C)
4. Electricity, Gas, Steam, and Air Conditioning Supply (D)
5. Water Supply; Sewerage, Waste Management, and Remediation Activities (E)
6. Construction (F)

7. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (G)
8. Transportation and Storage (H)
9. Accommodation and Food Service Activities (I)
10. Information and Communication (J)
11. Financial and Insurance Activities (K)
12. Real Estate Activities (L)
13. Professional, Scientific, and Technical Activities (M)
14. Administrative and Support Service Activities (N)
15. Education (P)
16. Human Health and Social Work Activities (Q)
17. Arts, Entertainment, and Recreation (R)
18. Other Service Activities (S)

The survey was confined to the formal sector of the economy, which consists of the following:

1. Corporations and partnership, regardless of employment size,
2. Cooperatives and foundations, regardless of employment size,
3. Single proprietorships with branches, regardless of employment size, and
4. Single proprietorship with no branches but with total employment (TE) of 10 and over.

Hence, the 2022 ASPBI covered all establishments regardless of employment size, except those establishments with:

1. Legal Organization of single proprietorship (LO=1),
2. Economic Organization of single establishment (EO=1), and
3. TE of less than 10.

II.   Data Collection

II.1. Data Collection

The survey was conducted nationwide in 2022 with 2022 AS the reference period, except for employment where the reference period is as of 15 November 2022.

Distribution and collection of 2022 ASPBI questionnaires were done according to a timetable set. Distribution was done in April 2022 through personal visits by PSA field staff to the sample establishments located in the provinces and cities nationwide. The collection of accomplished questionnaires started one week after distribution.

II.2. Survey Instruments

The 2022 ASPBI utilized seven forms of questionnaires which captured data of sample establishments engaged in the 18 sections of the economy as defined in the 2019 Updates to the 2009 PSIC. The seven forms of questionnaires are presented in the table below:

ASPBI Form No.	Form Title
1	Agriculture and Fishing
2	Mining Quarrying Manufacturing
3	Electricity, Gas, Steam and Air Conditioning Supply Water Supply; Sewerage, Waste Management and Remediation Activities
4	Construction
5	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles
6	Financial and Insurance Activities
7	Business and Services

Each form of the survey questionnaire is available in three options. These are the following:

1. online questionnaire which can be accessed at https://aspbi.psa.gov.ph,
2. electronic copy of the questionnaire, either in portable document format (.pdf) or Excel (.xlsx) file format, and
3. printed copy of the self-administered questionnaire.

The sample establishment can choose from these options in recording the information for the data items in the survey questionnaire.

II.3. Data Items

The survey collected data on employment, revenue, expense, sales from e-commerce transactions, capital expenditure, book value of fixed tangible and intangible assets, average capacity utilization rate, and inventory.

II.4. Data Processing

To ensure quality of survey reports, several levels of validation following guidelines set were done during the processing phase of the survey operation.

Computer systems were also developed and used to facilitate the smooth conduct and monitoring of the survey operation. These were the Monitoring and Tracking System (MTS) and the Establishment Data Management System (EDMS) which are online systems. The MTS was used to monitor the real-time progress of the survey operation, which included distribution, collection, transmittal, manual processing, and data processing of questionnaires, among others. On the other hand, the EDMS was used in the processing of data and tabulation of survey results.

III. Methodology

III.1. Sampling Frame

The sampling frame for the 2022 ASPBI was extracted from the preliminary 2022 List of Establishments (LE) updated as of 10 February 2023. This frame was used to draw the sample establishments for the survey. The preliminary 2022 LE showed that there were 1,100,781 establishments that were in operation in the country of which 360,637 establishments comprised the sampling frame or the establishments that are within the scope and coverage of the 2022 ASPBI.

III.2. Sample Selection Procedure

The 2022 ASPBI uses a stratified systematic sampling design with 3-digit or 5-digit PSIC as the first stratification variable, depending on the section and total employment, which is classified into Micro, Small, Medium establishments (MSME), as the second stratification variable.

Stratified systematic sampling is a process of dividing the population into homogeneous groups, called strata, and then selecting independent samples in each stratum systematically. This method ensures that all important subgroups of the population are represented in the sample and increases the precision of "overall" survey estimates.

Domain

The geographic domain of the 2022 ASPBI is the region. The industry domain/stratum is a 3-digit or 5-digit industry classification, and the employment domain/stratum is the MSME classification.

Unit of Enumeration

The unit of enumeration for the 2022 ASPBI is the establishment.

III.3. Estimation Procedure

III.3.1. Weights Computation

Base Weight

The base weight is the inverse of the probability of selection. For the ASPBI, the base weight for each domain is given by:

$$w_{hk} = \frac{N_h}{n_h}$$

where w_{hk} is the base weight of the k-th establishment in the h-th stratum, N_h is the total number of establishments in the h-th stratum, n_h is the total number of sample establishments in the h-th stratum, and h refers to the industry-employment stratum.

<u>Adjustment Factor</u>

To take into account the non-responding sample establishments, the adjustment factor by region and industry section is as follows:

$$A_h = \frac{\sum\limits_{k=1}^{n_h} (w_{hk} X_{1hk})}{\sum\limits_{k=1}^{n'_h} (w_{hk} X_{2hk})}$$

where A_h refers to the adjustment factor in the h-th stratum, w_{hk} is the base weight of the k-th establishment in the h-th stratum, X_{1hk} is the eligibility status of the k-th sample establishment in the h-th stratum (i.e., 1 if eligible, 0 otherwise), X_{2hk} is the responding status of the k-th sample establishment in the h-th stratum, n_h is the total number of sample establishments in the h-th stratum, and n'_h is the total number of eligible sample establishments in the h-th stratum, that is,

$$n_h = \sum\limits_{k=1}^{n_h} X_{1hk}.$$

<u>Final Weight</u>

The final weight is the product of the base weight and adjustment factor. That is,

$$w_{fhk} = A_{hk} w_{hk}$$

where w_{fhk} is the final weight of the k-th establishment in the h-th stratum, A_{hk} is the adjustment factor of the k-th establishment in the h-th stratum, and w_{hk} is the base weight of the k-th establishment in the h-th stratum.

III.3.2. Estimation of Total

<u>Total by Industry-Employment Stratum (h)</u>

The estimator for the total of a characteristic in each industry-employment stratum (h) in a region (geographic domain) is given by:

$$\widehat{Y} = \sum\limits_{k=1}^{n''_h} (w_{fhk} \ y_{hk})$$

where y_{hk} is the value of the k-th establishment in the h-th stratum, w_{fhk} is the final weight of the k-th establishment in the h-th stratum, and n''_h is the total number of establishments in the h-th stratum, that is,

$$n_h'' = \sum_{k=1}^{n'h} X_{2hk}.$$

Total by Industry Stratum per Region

The estimator for the total of a characteristic in each industry stratum in a region is given by:

$$\widehat{Y}_{ir} = \sum_{h=1}^{n_i} \widehat{Y}_h$$

where r is the subscript for geographic domain, h_i is the number of employment strata for the i-th industry stratum, and n_i is the number of employment stratum for the i-th industry stratum.

Total by Employment Stratum per Region

The estimator for the total of a characteristic in each employment stratum for the regional domain is given by:

$$\widehat{Y}_{jr} = \sum_{h=1}^{h_j} \sum_{k=1}^{n_j} (w_{fhk} \; y_{hk})$$

where h_j is the number of industry strata for the employment stratum j, r is the subscript for geographic domain, and n_j is the number of responding sample establishments in the j-th employment stratum.

Total by Geographic Domain

The estimator for the total of a characteristic in each geographic domain is given by:

$$\widehat{Y}_r = \sum_{i=1}^{I_r} \widehat{Y}_{ir} \quad \text{or} \quad \widehat{Y}_r = \sum_{j=1}^{J_r} \widehat{Y}_{jr}$$

where I_r is the total number of industry strata in geographic domain r, and J_r is the total number of employment data in geographic domain r.

Total by Industry Stratum (National)

The estimator for the national total of a characteristic in each industry domain/stratum is given by:

$$\widehat{Y}_i = \sum_{r=1}^{R} \widehat{Y}_{ir}$$

where R is the total number of regions.

<u>Total by Employment Stratum (National)</u>

The estimator for the national total of a characteristic in each employment domain/stratum is given by:

$$\widehat{Y}_j = \sum_{r=1}^{R} \widehat{Y}_{jr}$$

where R is the total number of regions.

<u>National Total</u>

The estimator for the national total of a characteristic is given by:

$$\widehat{Y} = \sum_{i=1}^{I} \widehat{Y}_i \quad \text{or} \quad \widehat{Y} = \sum_{j=1}^{J} \widehat{Y}_j$$

where I is the total number of industry strata, and J is the total number of employment strata.

IV.   Concepts and Definition of Terms

An **establishment** is defined as an economic unit under a single ownership or control which engages in one or predominantly one kind of economic activity at a single fixed location. An establishment is categorized by its economic organization, legal organization, industrial classification, employment size, and geographic location.

Geographic Classification refers to the grouping of establishments by geographic area using the Philippine Standard Geographic Code (PSGC) classification. The PSGC contains the latest updates on the official number of regions, provinces, cities, municipalities, and barangays in the Philippines. The PSGC as of 31 December 2021 was used for the 2021 ASPBI.

Size of an establishment is determined by its total employment as of the time of visit during the latest Updating of the List of Establishments.

Total Employment (TE) refers to the total number of persons who work in or for the establishment. This includes paid employees, working owners, unpaid workers, and all employees who work full-time or part-time including seasonal workers. Also included are persons on short-term leave such as those on sick, vacation or annual leaves, and on strike.

E-commerce transaction is the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organizations, conducted over the Internet. The goods and services are ordered over the

Internet, but the payment and the ultimate delivery of the good or service may be conducted on or offline.

V. Dissemination of Results and Revision

The results of the 2022 ASPBI are disseminated through the posting of Special Releases and electronic publications on the PSA website, and final statistical tables in OpenStat. The updating or revisions on data were done upon finalizing the results of the 2022 ASPBI data.

This Special Release presents the results of the 2022 ASPBI for All Establishments (Economy-wide) in the MIMAROPA Region. Data are presented by section or 1-digit classification as classified under the 2019 Updates to the 2009 PSIC.