SPECIAL RELEASE

Results of the 2017 Survey on Information and Communication Technology (SICT) For Information Economy (Core ICT Industries) in Ilocos Region - Preliminary Results

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This Special Release presents the preliminary results of the 2017 Survey on Information and Communication Technology (SICT) for the Information Economy (IE) or core Information and Communication Technology (ICT) industries. The SICT adopts the IE or Core ICT industries as its framework. IE refers to industries involved in producing and trading of ICT products, and those which primarily use ICT in providing products and services. IE is comprised of the Information and Communication Technology (ICT) sector and the Content and Media sector.

Table 1. Proportion of IE Establishments/Employees According to Selected ICT Indicators for Core ICT Industries, Philippines and Ilocos Region: 2017 and 2015 (in Percent)

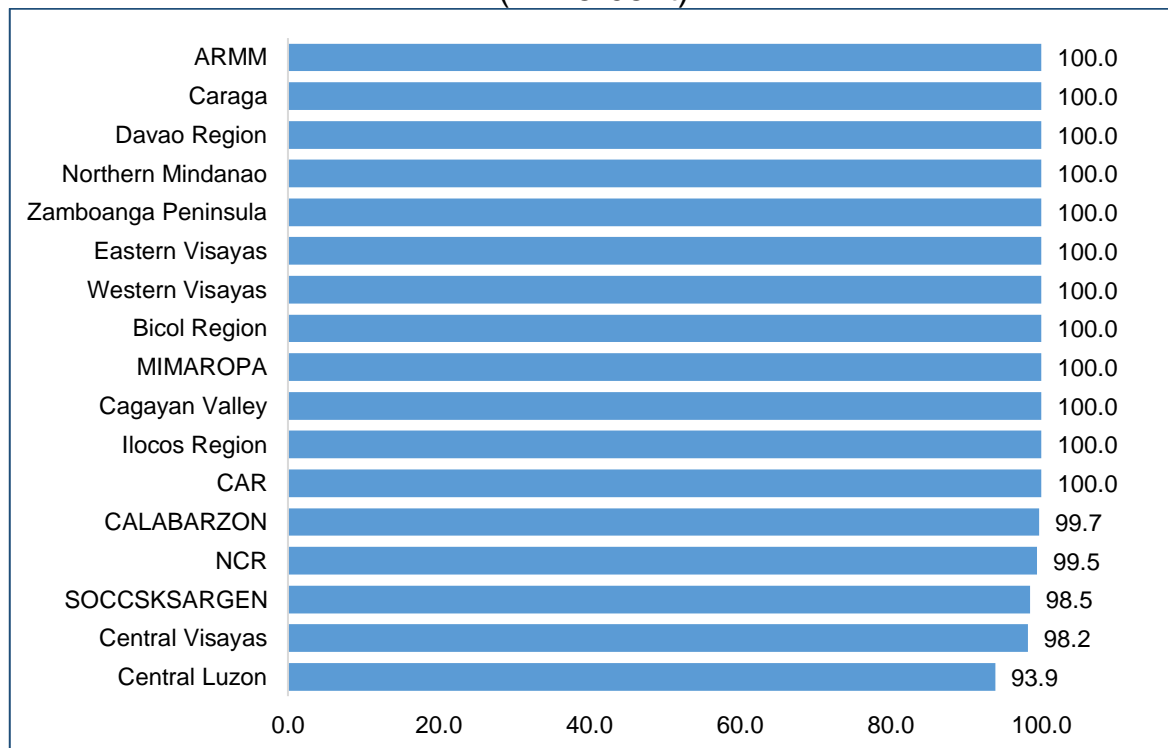| ICT Indicator	Philippines		Ilocos Region	
	2017	2015	2017	2015
Proportion of Establishments:				
That owned and used Computers and Communication Equipment	99.6	98.5	100.0	95.5
With Internet	97.2	96.7	98.8	91.9
With Website	44.9	29.5	29.1	6.3
With E-commerce via Internet	15.1	13.5	9.3	6.3
With Business Transaction via Cellular Mobile Phone	27.7	17.4	27.9	8.1
Proportion of Employees:				
Using Computer routinely at work	64.0	47.9	81.6	75.3
Using Computer routinely at work With internet connection or access	57.2	40.0	78.7	71.7

Source: Philippine Statistics Authority, 2015 and 2017 SICT

All IE establishments in Ilocos Region owned and used computers and communication equipment.

A total of 86 establishments under the Information Economy (IE) was estimated in 2017 in Ilocos Region. All these establishments (100.0%) owned and used computers and communication equipment in their business operations. The record was higher by 4.5 percentage points than the proportion of ownership and usage in 2015 at 95.5 percent. (see Table 1)

The proportion of IE establishments that owned and used computers and communication equipment in the country was recorded at 99.2 percent in 2017. It was higher by 0.7 percentage point than the proportion of ownership and usage in 2015 at 98.5 percent.

Figure 1. Proportion of IE Establishments that Owned and Used Computers and Communication Equipment by Region: 2017 (in Percent)

Source: Philippine Statistics Authority, 2017 SICT

At the regional level, all IE establishments in the following regions in 2017, including Ilocos Region, owned and used computers and communication equipment: Cordillera Autonomous Region (CAR); Cagayan Valley; MIMAROPA Region; Bicol Region; Western Visayas; Eastern Visayas;
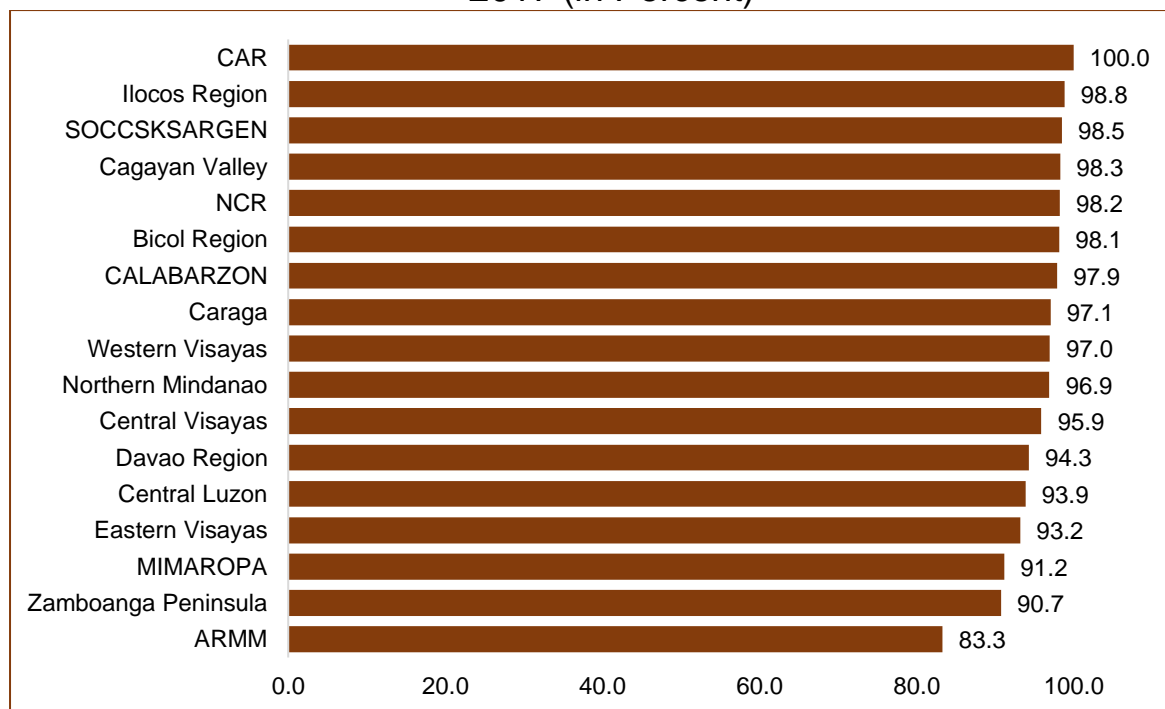
Zamboanga Peninsula; Northern Mindanao; Davao Region; Caraga; and Autonomous Region in Muslim Mindanao (ARMM). The lowest proportion of IE establishments that owned and used computers and communication equipment was recorded by Central Luzon with 93.9 percent.

Proportion of IE establishments with internet in the Ilocos Region increased

Of the total IE establishments in Ilocos Region, 98.8 percent had internet access in 2017. This proportion posted an increase of 6.9 percentage points, from 91.9 percent of IE establishments with internet access in 2015.

Similarly, the country posted an increase in IE establishments with internet access from 96.7 percent in 2015 to 97.2 percent in 2017 (Table 1).

Figure 2. Proportion of IE Establishments with Internet by Region 2017 (in Percent)

Region	Percent
CAR	100.0
Ilocos Region	98.8
SOCCSKSARGEN	98.5
Cagayan Valley	98.3
NCR	98.2
Bicol Region	98.1
CALABARZON	97.9
Caraga	97.1
Western Visayas	97.0
Northern Mindanao	96.9
Central Visayas	95.9
Davao Region	94.3
Central Luzon	93.9
Eastern Visayas	93.2
MIMAROPA	91.2
Zamboanga Peninsula	90.7
ARMM	83.3

Source: Philippine Statistics Authority, 2017 SICT

Among the regions, CAR registered the highest proportion of IE establishments with Internet connection at 100.0 percent in 2017. It was followed by Ilocos Region at 98.8 percent. The lowest proportion of IE establishments with internet access was recorded by ARMM at 83.3 percent.

Proportion of IE establishments with website in Ilocos Region continued to expand

In 2017, 29.1 percent of IE establishments in Ilocos Region had a website. It was higher by 22.8 percentage points than the 6.3 percent recorded in 2015.

The proportion of the country's total IE establishments with website also increased by 15.4 percentage points from 29.5 percent in 2015 to 44.9 percent in 2017 (Table 1).

E-commerce transactions via internet in Ilocos Region went up by 3.0 percentage points

The proportion of IE establishments Ilocos Region engaged in e-commerce transaction via the internet in 2017 was recorded at 9.3 percent, an increase of 3.0 percentage points from the 6.3 percent reported level in 2015 (Table 1).

Similarly, IE establishments engaged in e-commerce transactions via the internet in the country increased by 1.6 percentage points from 13.5 percent in 2015 to 15.1 percent in 2017 (Table 1).

Use of mobile phone in business transactions in Ilocos Region increased

Cellular mobile phone is another medium that can be used for doing business. Of the total IE establishments in Ilocos Region in 2017, 27.9 percent used mobile phones in their business transactions,

an increase of 19.8 percentage points from the 8.1 percent usage level in 2015.

At the national level, it was recorded at 27.7 percent in 2017 - a 10.3 percentage points increase from 17.4 percent in 2015 (Table 1).

Proportion of IE employees using computer routinely at work in Ilocos Region showed an increase over a two-year period

Four in every five IE employees or 81.6 percent used computers routinely at work in 2017 in Ilocos Region. It was higher by 6.3 percentage points from the 75.3 percent recorded in 2015.

Meanwhile, 64.0 percent of IE employees who used computer routinely at work was recorded in the country in 2017. It was higher by 16.1 percentage points from 47.9 percent in 2015 (Table 1).

IE employees who use computer with internet connection routinely at work in Ilocos Region went up by 7.0 percentage points

In 2017, 78.7 percent of IE employees who uses computer with internet connection routinely at work were recorded in Ilocos Region. It increased by 7.0 percentage points from 71.7 percent of IE employees in 2015.

At the national level, 57.2 percent of the total IE employees used computers with internet connection or access routinely at work. The proportion of IE employees that used computer with internet connection or access routinely at work in 2017 was higher by 17.2 percentage points compared to the 40.0 percent level in 2015 (Table 1).

TECHNICAL NOTES

The 2017 SICT was the seventh in the series of SICT conducted by the Philippine Statistics Authority (PSA). It was a rider to the 2017 Annual Survey of Philippine Business and Industry (ASPBI) conducted in 2018.

The unit of enumeration of the survey was the establishment. Establishment was defined as an economic unit under a single ownership or control, i.e., under a single legal entity, engaged in one or predominantly one kind of activity at a single fixed location.

The 2017 SICT was undertaken nationwide and covered all industries in the 2017 ASPBI. For the purpose of the survey, these industries were classified as core ICT industries and non-core ICT industries. Core ICT industries were industries comprising the Information Economy (IE). IE refers to industries involved in producing and trading of ICT products, and those which primarily used ICT in providing products and services. For this Special Release, only results from IE industries are presented.

The IE was composed further of the ICT sector and Content and Media sector. The industries under each sector were as follows:

1. ICT Sector
    a. ICT Manufacturing Industries
    b. ICT Trade Industries
    c. ICT Service Industries
        - Software publishing
        - Telecommunication services
        - Computer programming, consultancy and related services
        - Data processing, hosting and related activities; web portals
        - Repair of computers and communication equipment

2. Content and Media Sector
    a. Publishing activities
    b. Motion picture, video and television programme production, sound recording and music publishing activities
    c. Programming and broadcasting activities

The 2017 SICT utilized a stratified systematic sampling design with five-digit PSIC serving as first stratification variable (industry strata/domain) and employment size (Total Employment (TE)) as the second stratification variable (employment strata).

There were only two employment strata used for the survey: Stratum1 - TE of 20 and over, and Stratum 2 - TE of less than 20. For non-core ICT industries, only establishments under the first stratum were covered, except those establishments classified as BPM industries under the administrative and support service activities sector, which were completely covered, regardless of employment size.

Sampling Frame of Establishments

The sampling frame for the 2017 SICT, which was used to draw the sample establishments for the survey, was extracted from the 2017 List of Establishments (LE) as of 18 January 2018. Included in the sampling frame for SICT survey were those establishments confined to the formal sector. The formal sector comprised the following:

a. Corporations and partnerships
b. Cooperatives and foundations
c. Single proprietorship with employment of 10 and over
d. Single proprietorship with branches

Sample size and selection

Establishments engaged in the core ICT industries were completely enumerated (100%), regardless of employment size. The establishments classified in the non-core ICT industries and with total employment of 20 and over were covered on a 20 percent sampling basis for each of the industry domain at the national level. Per cell (industry domain), the minimum sample size was set to three (3) establishments while the maximum was set to 10 establishments. However, when the total number of establishments (N) in the cell was less than the set minimum sample size, all establishments in that cell were taken as samples.

CONCEPTS AND DEFINITIONS

E-commerce or electronic commerce refers to the sale of goods and services where an order is placed by the buyer, price, and terms of sale are negotiated over the Internet Protocol-based networks, an extranet, Electronic Data Interchange (EDI) network, or other online systems.

Information Economy (IE) is a term used to describe the economic and social value created through the ability to rapidly exchange information at anytime, anywhere to anyone. It is characterized by the intensive use by businesses of ICT for the collection, storage, processing and transmission of information. The use of ICT is supported by supply of ICT products from an ICT-producing sector and through trade.

IE is comprised of the Information and Communication Technology (ICT) Sector and the Content and Media Sector.

Industries under ICT Sector are industries which fulfill and/or enable, by electronic means, the processing, communication, transmission and display of information. It excludes the industries which create the information. Industries under Content and Media Sector are those which produce goods and services primarily intended to inform, educate and/or entertain humans through mass communication media. These industries are engaged in the production, publishing and/or distribution of content (information, cultural and entertainment products), where content corresponds to an organized message intended for human beings.

Information and Communication Technology (ICT) as defined by the Commission on Information and Communication Technology (CICT) is "the totality of electronic means to collect, store, process and present information to end-users in support of their activities". It consists, among others, of computer systems, office systems and consumer electronics, as well as network information infrastructure,

the components of which include the telephone system, the Internet, fax machines and computers.

ICT Resources are equipment, knowledge and human resources used to support electronic business/manufacturing processes and the conduct of electronic commerce transactions. It includes computer and peripheral equipment, systems and application software, network channels, telecommunication equipment, routers, satellite and other ICT hardware used in electronic business and commerce transactions, ICT support services and ICT workers.

Internet is a global system of interconnected computer networks that interchange data by packet switching using the standardized Internet Protocol Suite (TCP/IP). It is a "network of networks" that consists of millions of private and public, academic, business, and government networks of local to global scope that are linked by copper wires, fiber-optic cables, wireless connections, and other technologies. The internet carries various information resources and services, such as electronic mail, online chat, file transfer and file sharing, online gaming, and the inter-linked hypertext documents and other resources of the World Wide Web (WWW).

Network channel is a collection of computers connected to each other that allows them to communicate with each other, and share resources and information. All networks are made up of basic hardware building blocks to interconnect network nodes, such as Network Interface Cards (NICs), Bridges, Hubs, Switches, and Routers.

Web site is a collection of Web pages, images, videos or other digital assets that is hosted on one or more web servers, usually accessible via the internet. All publicly accessible websites are seen collectively as constituting the "World Wide Web". The pages of a website can usually be accessed from a common root URL called the homepage, and usually reside on the same physical server.

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