

# **E-Commerce** and Its Development in **Thailand:** An Empirical Evidence from the Survey on Thailand's **E-Commerce**

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กระทรวงดิจิทัล  
เพื่อเศรษฐกิจและสังคม

ETDA

# Agenda

- I. Introduction to Electronic Transactions Development Agency (ETDA)**
- II. UNCTAD and ETDA Collaboration**
- III. An overview of Thailand E-Commerce Value: Methodology + Results**
  - 1) Annual E-Commerce Value**
  - 2) Quarterly E-Commerce Value**





# I. Introduction to Electronic Transactions Development Agency (ETDA)



กระทรวงดิจิทัล  
เพื่อเศรษฐกิจและสังคม



# ETDA Vision

To be a leading agency in driving economic growth and social development in Thailand through e-Transactions by collaborating with all sectors to cope with the World future challenges

**DIGITAL IDENTITY  
ECOSYSTEM**

**DIGITAL  
SERVICE  
LANDSCAPE**

**ULTIMATE GOALS**

**SUPPORT  
GOVERNMENT  
E-SERVICE  
AND E-OFFICE**



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# OTHER TASKS



## DIGITAL SOCIETY

### Internet for a Better Life

- Raised awareness of appropriate and secure digital technology usage for over 5,000 children, young adults and elders

## SUPPORT

### "Thailand E-Commerce Sustainability"

- Cooperating with leading e-Marketplace to **increase trade channels** for SMEs
- **Comprehensive** professional **knowledge & tip sharing**
- **Foster knowledge** through the online learning platforms

## ONLINE COMPLAINT CENTER (OCC)

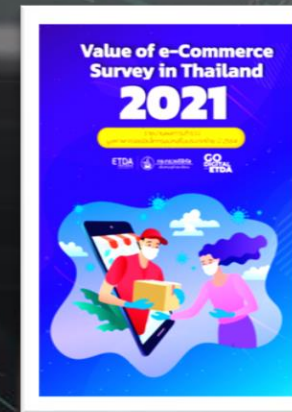
Hotline call center 1212,  
E-mail [1212@mdes.go.th](mailto:1212@mdes.go.th),  
and Website  
[www.1212occ.com](http://www.1212occ.com)

(Handled over 19,168 cases:  
during 1<sup>st</sup> October 2020 –  
31<sup>st</sup> March 2021)

# OTHER TASKS

## Survey Important Statistics

- **The value of E-Commerce decreased** from USD 0.12 trillion in 2019 to USD 0.11 trillion **in 2020** but it was projected that the **2021 E-Commerce value would rise to USD 0.12 trillion**. The estimated growth rate during 2020–2021 was 6.11%. (Source: Value of E-Commerce in Thailand 2021)
- Thais, especially **Z Generation, use the Internet about 10.60 hours per day**. (Source: Thailand Internet User Behavior 2021)
- Analyze hot topic on social media to understand user behaviors including foresight research.



Annual Report:  
Value of E-Commerce  
Survey in Thailand 2021.  
(Quarterly in Nov. 2021)



Annual Report:  
Thailand Internet  
User Behavior 2021





## II. UNCTAD and ETDA Collaboration



UNITED NATIONS  
UNCTAD



ETDA

# UNCTAD and ETDA: Measuring E-Commerce day

## Focus point "Methodology" in Oct 2015

### Bangkok, Thailand



 Ms. Diana Korka  
UNCTAD



 Dr. Kim Seung Keon  
Korea Association for ICT Promotion

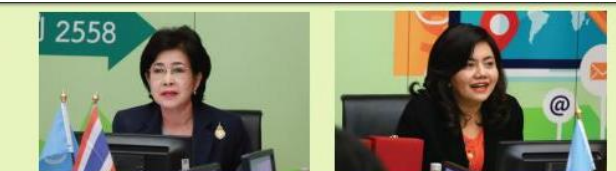


 Mr. Aarno Airaksinen  
Statistics Finland  
Eurostat Methodology



 Mr. Winston Oyadomari  
Regional Center for Studies on the Development of the Information Society of Brazil





# III. An Overview of Thailand E-Commerce Value Survey: Methodology + Results



## E-Commerce Definition

Based on the definition from the Organization for Economic Co-operation and Development (OECD). E-Commerce means a business that sells a product or a service to a customer via the internet or allows a customer to send a purchase order and reserve a product or a service via the internet (either through website or by email), while payment and delivery can be made via any channels.

**E-Commerce** includes purchase orders received from websites or other internet applications such as extranets and other programs that operate through the internet (e.g., EDI and Mintel), regardless of the channels to access those websites (for example, users may enter websites via mobile phone or television). However, this excludes purchase orders received by phone, fax, or from email interaction without a purchase order



# 1 ) Annual Value of E-Commerce in Thailand 2021



# Determination of **Dimensions** in Data Analysis

To study the value of E-Commerce in 2020 and to project the 2021 value, the related data can be categorized into three dimensions as follows:

**First Dimension:** by the characteristics of business operations: B2B, B2C, and B2G. B2G data is compiled from the value of government procurement from the Comptroller General's Department, Ministry of Finance (Thailand).

In this survey, the value of government procurement includes only products sourced by electronic market (e-Market) and electronic bidding (e-Bidding) methods.

**Second Dimension:** by the level of income:

- (1) E-Commerce operators with annual income of less than THB 50 million or USD 1.52 million (SMEs)
- (2) E-Commerce operators with annual income equal to or more than THB 50 or USD 1.52 million (Enterprises).

**Third Dimension:** categorizes E-Commerce into eight industry groups according ISIC Rev.4 (International Standard Industrial Classification of All Economic Activities Rev.4).

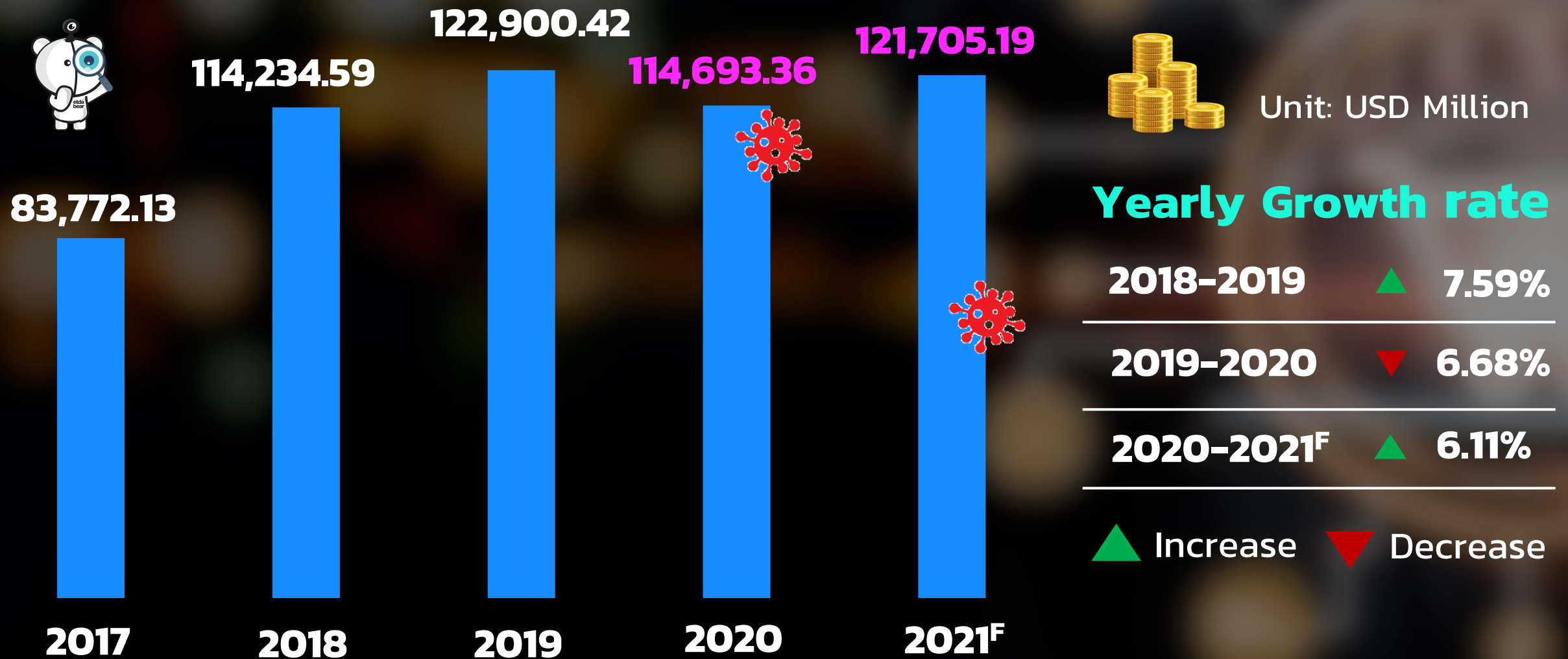
## Determination of **Research Methods**

The data in the 2021 Value of E-Commerce Survey in Thailand has been compiled and gathered from two groups:

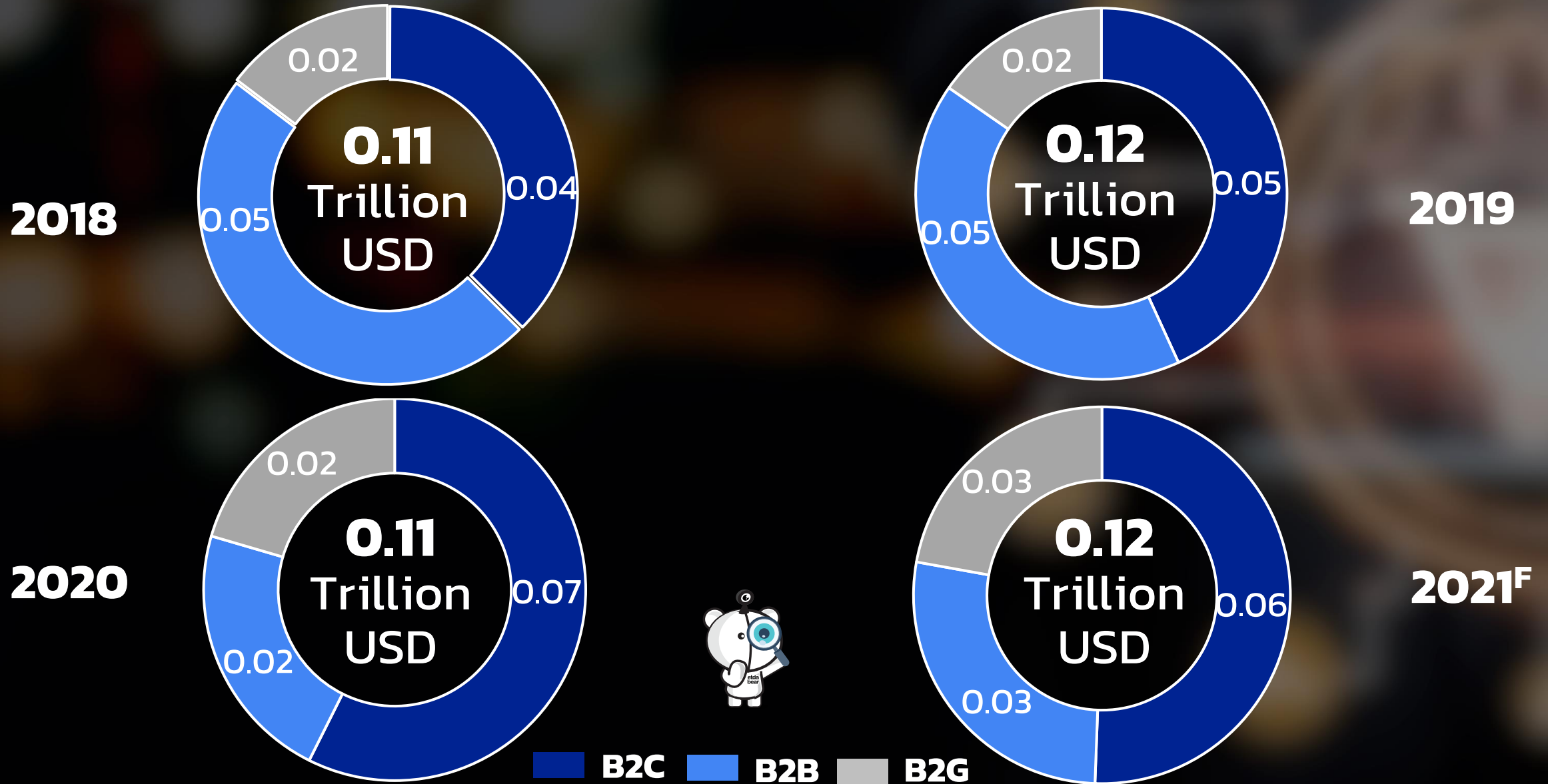
- (1) **SMEs** through an online questionnaire survey and
- (2) **Enterprises** through an in-depth interview (face-to-face interview).



# Figure 1: The value of e-Commerce in Thailand during 2017-2020 and the projection for 2021 (Yearly)

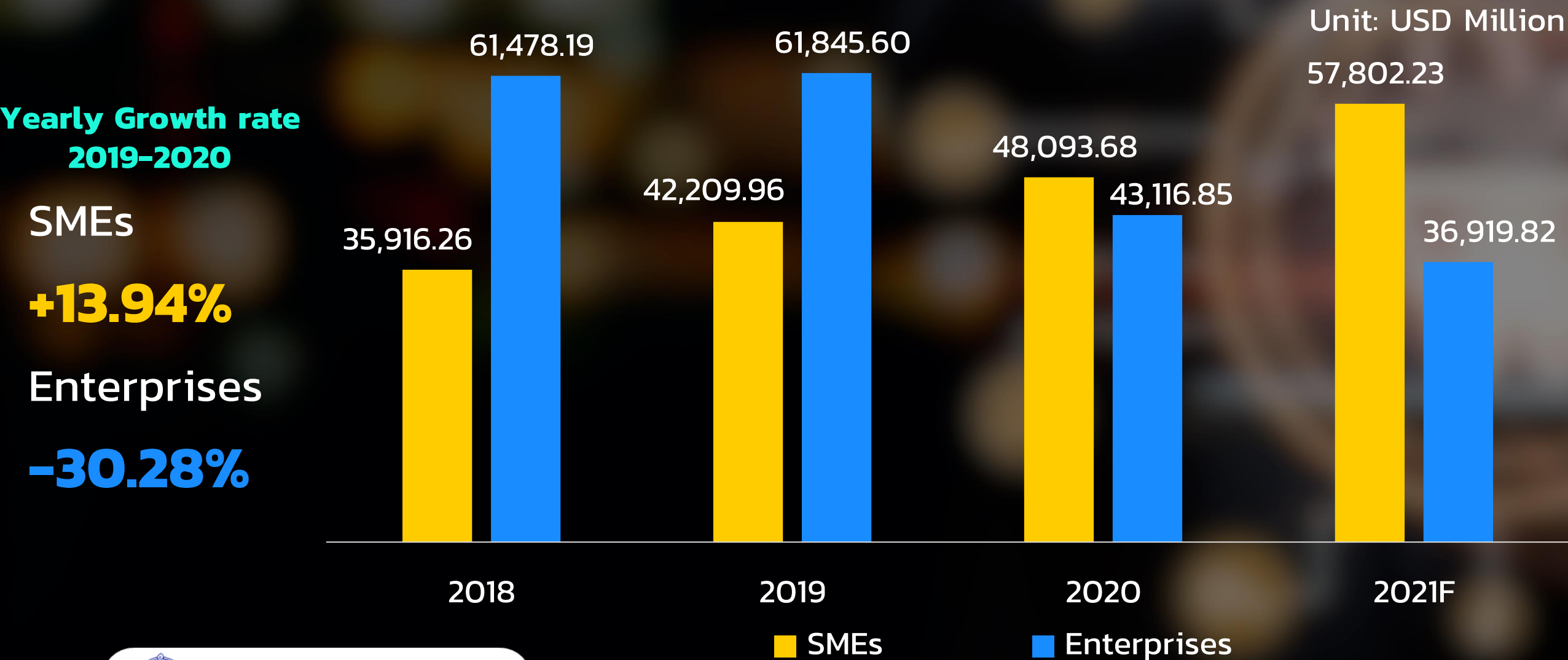


**Figure 2: The value of e-Commerce in Thailand during 2018-2020 and the projection for 2021, classified by type of operators (including the vale of government procurement)**





**Figure 3: The value of E-Commerce in Thailand during 2018–2020 and the projection for 2021, classified by size of businesses (excluding the value of government procurement)**



## 2) Value of E-Commerce in Thailand 2021 (Quarterly)





# Overview of Thailand E-Commerce Value Calculation Method (Quarterly)

## 1 Create a conceptual framework.

Select activities for collecting data.

Collect E-Commerce data related activities and select

Sample companies

**481 samples**



From 237 Activities

Establish a conceptual framework for Bottom-up Approach.

Class → Group → Division

## 2 Model the Quarterly value projection and E-Commerce Profile.

Develop a model for Quarterly E-Commerce Value.

### 1. Regression Model

$$Revenue_t = \alpha_t + (\beta_1 * GDP_{t-1}) + (\beta_2 * BSI_{t-1}) + (\beta_3 * Unemployment Rate_{t-1}) + (\beta_4 * Retail Index_{t-1}) + (\beta_5 * Website traffic_{t-1}) + \varepsilon_t$$

### 2. Moving Average

$$Y_{t+1} = \frac{Y_t + Y_{t-1} + \dots + Y_{t-n+1}}{n} * \theta_{q_{t-1}} * \sigma_{t+1}$$

Create an E-Commerce Company Profile for each company in each activities.

Study the environmental variables that affect the company's revenue e.g. Transportation Industry:

- GDP of the transport and storage industry
- BSI for the next 3 month
- Unemployment rate
- Statistics for each type of parcel delivery

## 3 Calculate the value of Quarterly E-Commerce by industry.

The resulting value is compared with the online sales proportion from the E-Commerce Profile to obtain the value of the sample companies in each activities, and then compare it with the market share to obtain the total E-Commerce value (Quarterly).

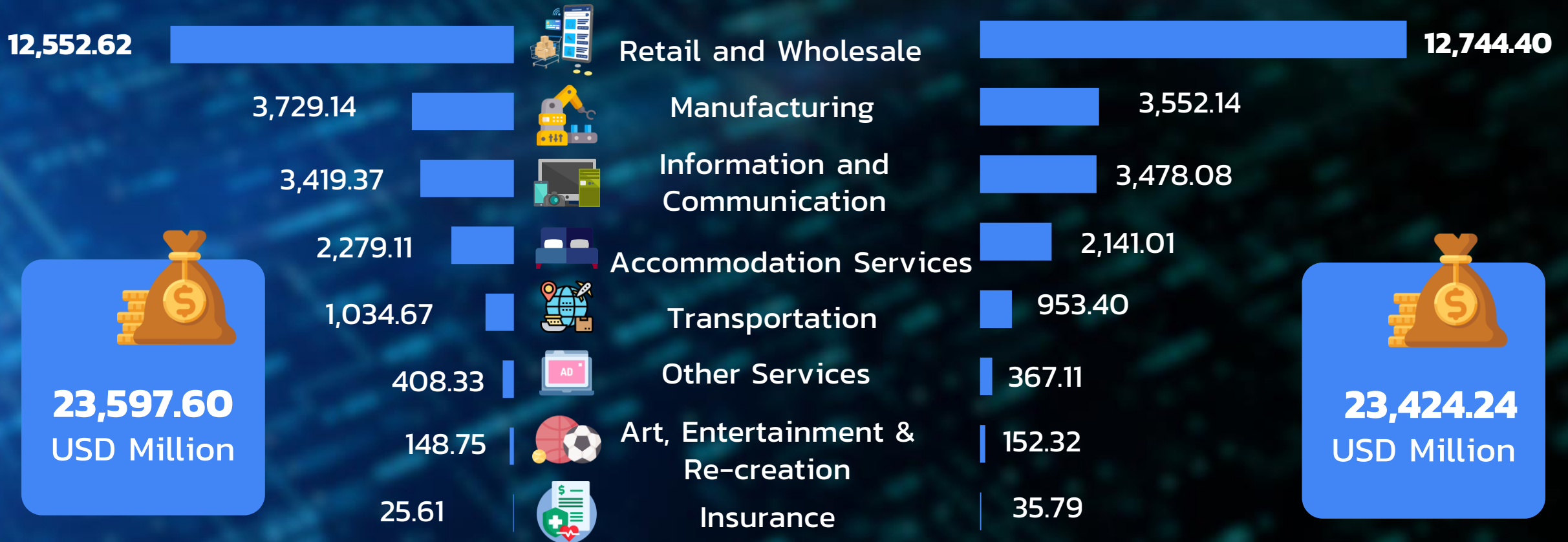


# The value of E-Commerce in Thailand 2021<sup>F</sup> classified by industrial sectors. (Quarterly)

**Q1/2021**

**Q2/2021**

Unit: USD Million





# Next step

- Developing tools to collect annual and quarterly E-Commerce value in Thailand more accurately and quickly by replacing traditional survey.
- Collecting Thailand E-Commerce value with international standards for benchmarking at both ASEAN and global levels.
- Provide Thailand cross-border E-Commerce value.



# THANK YOU

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