



**United Nations Conference
on Trade and Development**

**Trade and Development Board
Working Group on Measuring
E-Commerce and the Digital Economy**
Third meeting
Geneva, 28-29 November 2022 (hybrid)
Item 4 of the provisional agenda
Defining the digital economy for statistical purposes

Measuring the value of e-commerce

This analysis describes the current situation regarding measures of the value of e-commerce, including cross-border e-commerce, for various economies for which statistics are available. The focus is on estimates of business e-commerce sales produced by national statistics offices and other sources of official statistics.

Due to time and resource limitations, it was not possible to conduct an exhaustive search of all sources of official statistics worldwide. It may therefore be that additional countries have produced statistics on the value of business e-commerce sales. In such cases, **please contact the UNCTAD Secretariat to be included in the analysis** (ecde@unctad.org).

While the sample may not be exhaustive, it is broadly representative to give an overall view of measurement practices. We welcome all comments and feedback.

Measuring the value of e-commerce

Summary

Measuring e-commerce is a prerequisite for understanding its economic role and contribution to GDP, employment, and development, as well as for evidence-based policymaking. Beyond total e-commerce, the distinction between domestic and cross-border e-commerce is important to understand to what extent e-commerce contributes to exports and imports. The UNCTAD Secretariat has received various enquiries from countries asking for guidance and support to *measure the monetary value of e-commerce and digitally ordered trade*.

This analysis describes the current situation regarding measures of the value of e-commerce, including cross-border e-commerce, for various economies for which statistics are available. While the sample may not be exhaustive, it is broadly representative to give an overall view of measurement practices. The focus is on business e-commerce which is the main component of e-commerce.

There is a considerable variety of statistics available from various economies, but they also exhibit considerable variation in terms of definitions, approaches to e-commerce value, survey questions, data sources, methods, and scopes underpinning them. Furthermore, this analysis illustrates that, in most economies, there are simply no national statistics on the value of e-commerce. Moreover, so far, primarily statistics on e-commerce sales are available, which implies that cross-border e-commerce statistics mainly refer to exports and rarely to imports.

There is a need to take action to support the development of robust, exhaustive, and internationally comparable statistics on the value of e-commerce across countries – including both developed and developing countries. A logical next step would be to discuss the advantages and disadvantages of the different approaches described in this analysis and consider the potential for standard measures. This could then lead to developing appropriate statistical guidelines to measure e-commerce.

Such an effort would necessarily rely on the experience and expertise of the economies covered in this analysis, and others interested in contributing to guidelines that are relevant and useful for all. Within its mandate “to advance cooperation on measuring e-commerce and the digital economy and enhance the availability, quality, comparability, usability, and relevance of statistics concerning e-commerce and the digital economy” the WG-ECDE is well placed to take up this challenge.

To that end, the Working Group should consider to:

1. Agree that UNCTAD should further progress in analysing and assessing the advantages and disadvantages of existing measures of e-commerce in different countries as well as the potential for standardization, with a view to develop statistical guidelines on measuring the value of e-commerce (including cross-border e-commerce).
2. Agree that a task group of interested Working Group participants should be established to guide, oversee, and actively undertake the development of the necessary measurement standards and guidelines.

1. Introduction

1. The UNCTAD Working Group on Measuring E-commerce and the Digital Economy (WG-ECDE) is an international forum that aims to advance cooperation on measuring e-commerce and the digital economy and enhance the availability, quality, comparability, usability, and relevance of related statistics, with a view to supporting evidence-based policymaking, especially in developing countries. Since its inception in 2019, the group has had a strong focus on the need to develop statistics and evidence on the economic value of e-commerce (UNCTAD, 2019). More broadly, UNCTAD has a mandate to support countries in measuring e-commerce and the digital economy through developing statistical guidelines and complementary capacity building and technical assistance activities.

2. UNCTAD is a founding member of the Partnership on Measuring ICT for Development¹ along with the International Telecommunication Union and UN Department for Economic and Social Affairs as well as various UN Regional Commissions and other international bodies including the OECD and Eurostat. Together, and with input from countries, the partnership developed the Core ICT Indicators², which was adopted by UN member states through the UN Statistical Commission.

3. This core list includes 12 indicators on ICT access and usage by enterprises. The UNCTAD Manual for the Production of Statistics on the Digital Economy (UNCTAD, 2021a) supports countries in producing these indicators by setting out detailed specifications and model questions. Additionally, the Manual provides guidance on developing and implementing surveys on ICT usage and e-commerce in businesses, which are widely used to gather the data needed for these indicators.

4. Among these indicators are the share of businesses making sales online, as well as the share of businesses purchasing inputs via e-commerce. More recently, the UNCTAD Secretariat has received various enquiries from countries asking for guidance and support with going beyond this to measure the monetary value of e-commerce. Such measures, and their breakdown into domestic and cross-border transactions, are a prerequisite for analysis linking e-commerce to economic performance. Broad availability of these across a wide range of economies is needed to answer questions such as:

- What is the impact of e-commerce uptake by domestic businesses on economic growth, employment, trade, and economic development?
- To what extent does e-commerce contribute to additional economic activity vs. replacing existing ordering channels
- Does access to e-commerce ordering encourage customers (whether households or organisations) to substitute domestic purchases with alternatives bought from abroad?
- What contextual factors influence the above, such the sizes and industries of firms involved, payment methods used, trade openness of the country, etc.?

¹ Partnership on Measuring ICT for Development available at <https://www.itu.int/en/ITU-D/Statistics/Pages/intlcoop/partnership/default.aspx>

² Core list of indicators available at <https://www.itu.int/en/ITU-D/Statistics/Pages/coreindicators/default.aspx>

5. Importantly in this context, a lack of evidence on the links between e-commerce, trade and development means that much of UNCTAD’s advice to countries is predicated on the notion that e-commerce has the potential to be of economic benefit. The information outlined on the value of e-commerce would allow for empirical analysis that could yield a more robust and nuanced understanding of these relationships.

6. Simply put, e-commerce refers to transactions in which goods or services are ordered over a computer network (e.g., over the Internet). Any economic entity, whether a business, household, government unit, or non-profit institution, can engage in e-commerce as a buyer or seller. Furthermore, e-commerce transactions often cross international borders, with the seller being in a different economic territory to the buyer.

7. Since 2017, UNCTAD has gathered figures related to the monetary value of e-commerce sales in different economies as a basis for deriving estimates of global e-commerce sales (UNCTAD 2017, 2020, 2021b). For example, it was estimated that “global e-commerce sales jumped to \$26.7 trillion globally in 2019, up 4 per cent from 2018” (UNCTAD, 2021c).

8. Such estimates are subject to major limitations. Firstly, because exhaustive and internationally comparable national statistics on the value of e-commerce sales are not widely available, a range of other sources are relied on in their absence. These include business surveys asking about e-commerce sales, household surveys asking about e-commerce purchases (and sometimes sales), official statistics on online retail sales (which represent only a small portion of B2C e-commerce), and analyses of third-party sources such as payment card transactions data or parcel post volumes. Furthermore, the figures gathered vary in provenance, ranging from nationally representative surveys undertaken by official statistical agencies to member surveys conducted by business, Internet, or e-commerce associations and figures produced by private market intelligence firms. Thus, the extent to which the measures available are exhaustive and representative of each economy, and can be meaningfully compared to one another in practice, is limited.

9. Secondly, even when considering such a wide range of measures from different sources and perspectives, it is still the case that there is no information available for most countries. Arriving at a “global” figure necessitates the use of assumptions – notably that the average share of e-commerce sales relative to GDP will be the same across other countries as in those for which data are available. This is a strong assumption given the considerable difference in the degree of digitalization between the large and more advanced economies represented by the data gathered, and other economies including those in Africa, Latin America and the Caribbean, and the least developed countries (LDCs).

10. Finally, the estimates cover only transactions with businesses as sellers i.e., B2B and B2C³ e-commerce. Other economic units can also engage in e-commerce, most notably households are increasingly selling goods (such as unwanted or handmade items) and services (such as car

³ “Business-to-business” and “business-to-consumer”

journeys and stays in spare rooms) online, predominantly through “digital intermediation platforms” (DIPs).

11. These limitations are a product of the lack of generally available and comparable official statistics on the value of businesses’ e-commerce sales. Even so, there are still benefits to having an estimate of the global value of e-commerce (despite the limitations) as an indication of the potential scale and importance of e-commerce globally, as well as a means of highlighting the limitations in source data and need for concerted international effort. Taking steps to address the limited availability of data on the value of e-commerce will allow for better statistics and analysis at the national and international levels and, thereby, a basis for better policymaking as all countries navigate the digital transformation.

12. This analysis is a first step toward developing statistical guidance and support to address information gaps and respond to countries’ needs related to measuring the value of e-commerce.

2. Seeking estimates of the value of e-commerce sales

13. Enterprises are a natural starting point for measuring e-commerce, which is an increasingly important way for them to sell their goods and services. It is reasonable to assert that businesses will usually account for the significant majority of e-commerce sales by value. By extension, they would also be expected to underpin the majority of digitally ordered exports. Even though focussing on businesses will not give a complete picture of e-commerce in a given economy – business sources will not tell of the value of e-commerce sales by households, for instance – measuring businesses’ e-commerce sales can be expected to yield the “biggest single piece of the puzzle”.

14. Businesses also make extensive use of e-commerce to buy goods and services as inputs to their activities. Although this is of great relevance to understanding the impacts of e-commerce, especially in relation to substitution effects, it is not necessary for measuring the *direct* economic contribution of e-commerce (in terms of business sales, which contribute to GDP). Furthermore, it appears that measures of business expenditure on e-commerce purchases are (even) less widely available. For these reasons, *this analysis focuses on business e-commerce sales*.

15. Given the centrality of businesses, e-commerce measurement is a direct complement to, and can build directly upon, UNCTAD’s existing efforts to broaden the implementation of business ICT usage and e-commerce surveys internationally.

16. As a first step toward understanding the approaches taken to measure e-commerce, it is necessary to identify the relevant estimates available. As noted above, measures related to the value of e-commerce can come from a wide variety of sources. This research focusses on figures produced by national statistical offices and other government statistical sources as these are most likely to produce nationally representative figures according to internationally accepted statistical standards.

17. Drawing upon the information gathered in producing UNCTAD’s estimates of global e-commerce, business e-commerce value figures that were produced by official statistical agencies (“official estimates”) were identified for analysis. In addition, the national statistics

websites of all countries participating in the European Statistical System (ESS) were searched for published figures on the value of e-commerce. This is because the European Community survey on ICT usage and e-commerce in enterprises includes questions on business' revenue from e-commerce sales and although statistics on the monetary value of e-commerce are not required to be compiled and submitted to Eurostat, it was found that several countries have used the data gathered to derive and publish their own estimates.

18. The national statistics websites of other countries taking part in the OECD collection of business ICT usage data were also searched for estimates, as were those of ASEAN countries, as these countries tend to have relatively advanced statistics on business ICT usage that might collect information on the value of e-commerce sales. However, due to the time and resources available (including language resources) it was not possible to exhaustively search the websites and publications of all official statistics bodies worldwide and, as such, relevant statistics may be available for further economies.

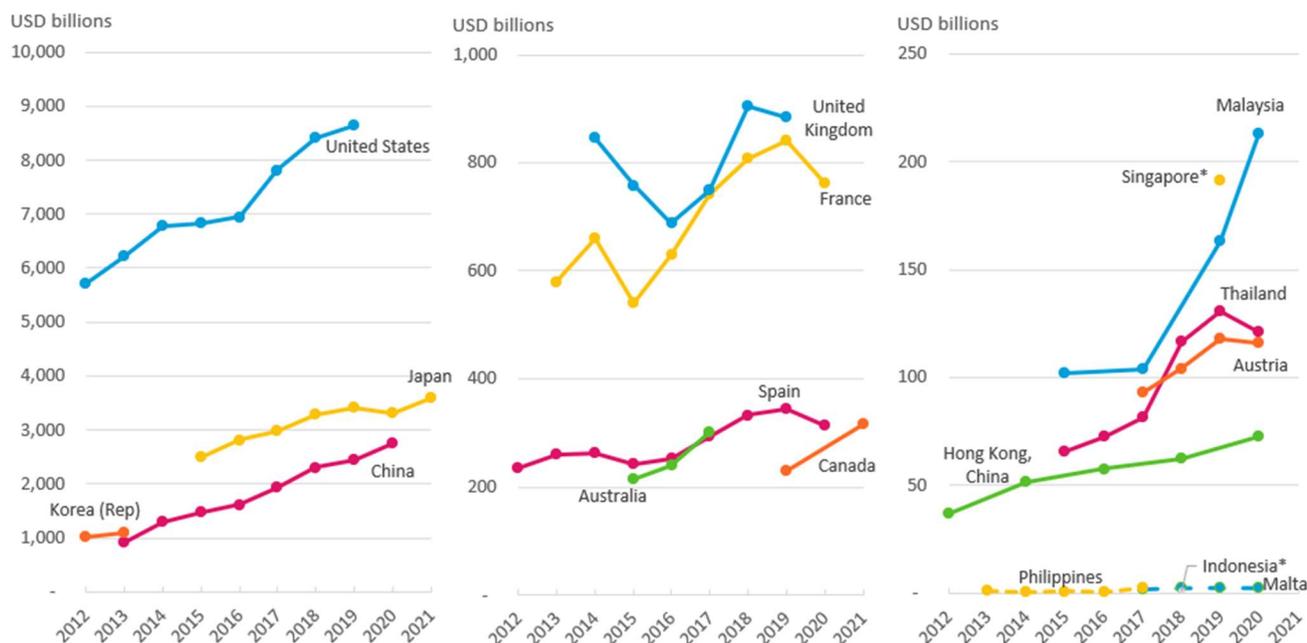
19. Notwithstanding this, it is notable that no official estimates appear to be available for countries in Africa, nor for any of the LDCs. These countries tend to have limitations both in the availability of statistics and also in their ability to engage with the digital transformation. Nevertheless, the information found is deemed sufficient for the purpose of this analysis: examining the various measurement approaches used to identify similarities and differences, which may offer opportunities for international efforts to develop statistical guidance to support all countries in measuring the value of e-commerce in a standardized and comparable manner.

20. **Figure 1** presents official estimates of the value of e-commerce sales by businesses. The largest e-commerce market is in the United States. In general, the total value of e-commerce transactions has been increasing over time in all economies, reflecting on-going digitalization of commerce.

21. These series present the monetary value of e-commerce in current prices. No adjustment is made for inflation, some of the trends shown may result from changing prices rather than absolute changes in the volume of e-commerce transactions.

22. The economic disruption associated with the COVID-19 pandemic and, more recently, the war in Ukraine, may have suppressed the overall value of e-commerce sales in some cases. Even so, it is likely that digitally ordered (i.e., e-commerce) sales made up an increasing share of total business' sales in many economies during this time – similar to how digitally deliverable services significantly increased as a share of services exports (UNCTAD, 2021d). For instance, in Spain, e-commerce turnover fell by 10 per cent from 2019 to 2020 (in current prices); but the average annual decline in the monthly business turnover index from 2019 to 2020 was greater, at 14 per cent (Instituto Nacional de Estadística, 2022).

Figure 1. E-commerce sales, USD billions, current prices, 2012-2020



Source: UNCTAD based on national sources.

Note: Sales by businesses only. Figures in national currency converted to USD using [UNCTAD annual exchange rates](#). **The comparability of the series presented is limited.** For most economies, the underlying source is a business ICT usage/e-commerce survey or other business survey (e.g., business activity survey). The series for Japan is based on a somewhat different approach, see box in section 3.5. * Singapore: services only, Indonesia: based on a “profiling survey” sampling businesses in 3,504 of over 800,000 census blocks across 34 of 37 provinces; as such these figures are not representative of all business e-commerce. For Australia, the reporting year ends in June of the year shown.

23. Although the series presented in Figure 1 are all produced by official statistical agencies, the sources and methods used vary in ways likely to affect international comparability. This analysis examines the different measurement approaches adopted to identify areas of commonality and divergence as a basis for developing statistical guidance on measuring the value of e-commerce.

24. The analysis included looking at the underlying survey questionnaires, which are available online for most of the economies shown. In other cases, the questionnaire form, or relevant excerpts of it, were provided to UNCTAD on request. Where necessary, translation into English was performed using Google Translate and DeepL⁴. The following sections set out findings from this research.

3. How is e-commerce measured?

25. The data underlying the official estimates of the value of e-commerce presented above are, in essence, collected by asking businesses *“how much money did your business earn from e-commerce [in a given reporting period]?”*. Nevertheless, economies differ in the definitions

⁴ Although this may not result in a perfect translation, it allows key aspects of the question structure and approach used to be identified (such as whether the amount is collected directly in currency or as a percentage of revenue).

adopted, how they are reflected in survey questions, and the scope and methods of the survey vehicles used.

3.1 Definitions

26. Answering the above question requires definitions for two key concepts “*e-commerce*” and “*money earned*”. Countries have taken different approaches to each of these.

3.1.1 E-commerce

27. Starting with the latter, internationally accepted definitions of e-commerce were set out by the OECD in the mid-2000s and subsequently streamlined into the following definition adopted in 2009 (OECD, 2011, p. 72):

An e-commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-commerce transaction can be between enterprises, households, individuals, Governments, and other public or private organizations.

28. As a guideline for interpreting and applying this, the OECD clarifies that the definition includes orders made through web pages, extranet, or electronic data interchange (EDI⁵) but excludes orders placed by telephone, fax, or manually typed email. The latter are excluded because they are not “specifically designed for the purpose of receiving or placing orders” and involve the direct interaction of human beings. By logical extension, this would also apply to communication methods that have become widely used since 2009 such as video calls and apps for sending manually typed electronic messages, such as through social media services (a box in section 3.3.2 considers the relationship between social media and e-commerce in more detail).

29. This definition is widely used, especially amongst OECD member countries and those participating in the European Statistical System.

30. The UNCTAD *Manual for the Production of Statistics on E-commerce and the Digital Economy* (UNCTAD, 2021a) also relies on the OECD definition but provides the following guidance for countries implementing the definition in practice:

“To take into account the different levels of technological development in countries, the Partnership [on measuring ICT for development] recommends collecting data only on orders received or placed over the Internet, including by email (the latter is excluded from the OECD definition)”.

⁵ Electronic Data Interchange (EDI) is the computer-to-computer transmission of (business) data – such as shipping orders, purchase orders, invoices, and requests for quotations – in a standard format using agreed standards. The messages are composed and processed without human intervention, which increases the speed of order processing, and reduces errors. It is used in a wide variety of industries including food, retail, logistics, and manufacturing, to efficiently manage international supply chains (e.g., Just-in-time inventory management), though the adoption of EDI technologies varies greatly between countries.

31. This implies an “UNCTAD definition” that is both more restricted and more expansive:

- Focussing only on orders placed through the Internet would lead to the exclusion of any e-commerce orders taking place through private networks (such as the “value added networks” for carrying EDI messages between businesses which arose in some countries before the Internet became ubiquitous). However, the Internet is now the default network for most applications including orders between businesses (e.g., “EDI over Internet”) and so this exclusion is unlikely to have material consequences except in countries where private networks are still used (unlikely in most developing countries).⁶
- Admitting orders made via manually typed emails (and, by logical extension, other forms of manually typed electronic messages such as those sent through messaging apps) leads to a wider scope of e-commerce.

32. The latter point is likely to have differing implications across economies. In those with a long history of digitalization and relatively high adoption of digital technologies among firms and households, such as most developed countries, orders via manually typed messages are unlikely to be widely used when it is common for companies to sell through online shops or marketplaces. By contrast, in developing countries where such sales channels, and the skills to use them, may be less common, email/messaging apps provide businesses (especially small, local businesses) with a low cost and easily accessible way to use the Internet to make sales.

33. In addition, variation can arise at the point of using the international definitions and guidelines as a basis for designing national survey forms and questions. **Table 1** presents the economies in terms of whether sales agreed via manually typed emails are included, and whether transactions over all computer networks or the Internet only are covered. This categorisation is based on the definitions and questions set to respondents in survey questionnaires, where available, and otherwise on details from methodological information published online or shared with UNCTAD.

34. Of the 17 economies presented in Figure 1, plus Mexico (for which a 2013 business questionnaire collecting e-commerce value is available online, but no directly comparable statistics are available⁷), a majority use definitions covering all “computer networks” but a significant group (around one third) address transactions through the Internet specifically. At the same time, one third of these economies *include* orders placed via email when estimating the value of e-commerce.

⁶ Including only orders placed through the Internet aligns with the OECD’s 2005 “narrow definition of e-commerce”, which was replaced in 2009 with the consolidated definition presented above covering all orders made through “computer networks”.

⁷ The Mexico 2013 business ICT usage survey measured the value of e-commerce sales. Alongside other sources the results contributed to annual statistics on “gross value added of e-commerce” in retail trade, wholesale trade, and “other services”. These are not presented in Figure 1 due to conceptual differences between sales revenues and gross value added (see <https://en.www.inegi.org.mx/programas/vabcoel/2018/>).

35. In a majority of these surveys, the e-commerce section includes an explicit definition of “e-commerce” (or similar concepts) to guide respondents. Others list specific inclusions and exclusions. Further detail can be found in **Annex 1**.

Table 1. Classification of economies by features of e-commerce definitions

	Excludes orders via manually typed email	Includes orders via manually typed email
All “computer networks”	Austria China France Hong Kong, China Japan Korea (Rep.) Malta Philippines Singapore Spain United Kingdom	United States
Internet only	Canada Malaysia	Australia Indonesia Mexico Thailand

Source: UNCTAD based on national sources.

3.1.2 Money earned

36. Once e-commerce is defined, it would appear relatively straightforward to ask businesses “how much money did your business earn via e-commerce?”. However, economies adopt various concepts and differences in financial accounting. European countries tend to request measures of “turnover” whereas economies in other regions tend to use measures of “sales” / “receipts” / “revenue” / “income”. There are differences which arise in the scope of these various concepts depending on the guidance set out on survey forms and in national financial accounting rules.

37. Most notable are differences in the treatment of sales taxes such as value added tax (VAT) or goods and services tax (GST). Of the economies for which this information is available, in ten respondents report figures excluding amounts collected for sales taxes (i.e., “net”) while in two (Indonesia and Thailand) responses include amounts relating to sales taxes. China also publishes enterprise e-commerce sales inclusive of VAT. Hong Kong, China does not implement such a sales tax. With standard VAT/GST rates of up to 21 per cent in the countries represented, the inclusion or exclusion of taxes from the value of e-commerce could materially affect the ability to make meaningful comparisons across economies.

38. Other differences also arise, such as whether amounts are requested including or excluding discounts given (e.g., for early payment by business customers) or of items returned for refund.

Annex 2 provides additional detail on the monetary concepts relevant to measuring the value of e-commerce transactions in different economies.

39. A final aspect of this relates to the guidance given in questionnaires to help respondents in certain types of businesses with correctly reporting their e-commerce income. Several countries include notes making clear to respondents which operate online marketplaces (i.e., “digital intermediary platforms”) that they should report only the fees or commissions earned on those transactions, rather than the full transaction amount (gross merchandise sales value). Examples include Malaysia and Australia, which also includes a note clarifying that for financial services businesses “only the fees earned for providing services as a result of orders received via the Internet” should be reported.

40. Definitions are just one aspect of differences between practical implementation in survey questions, which is examined in more detail in the next section.

3.2 Approaches to measuring value

41. Diversity in measurement also arises in how concepts of “e-commerce” and “money earned” are combined and implemented in business survey questionnaires. In general, two main approaches to gathering data on the total value of e-commerce can be identified:

- In the *direct approach*, businesses are asked to report a monetary value for their e-commerce sales. In most cases, these figures are requested rounded to the nearest whole currency unit (e.g., dollar) but in some questionnaires respondents are asked to round to the nearest thousand currency units.
- The *share approach* involves asking respondents to provide a monetary value for a relevant total, such as annual turnover or sales revenue⁸, and also to give the percentage share of that total arising from e-commerce sales. Together, these items can be used to derive an estimate of the responding enterprise’s e-commerce revenues.

42. **Box 1** presents an illustrative example of both these approaches being applied in a survey form. The questions used in other questionnaires are presented in **Annex 3**.

43. **Figure 2** categorises economies based on the approaches adopted in their survey questionnaires. It shows that a considerable number offer respondents both options. Nevertheless, the precise framing varies. In Canada and Hong Kong, China both the monetary value and percentage of sales are requested. In Austria and the US Services Annual survey respondents are asked to provide *either* the monetary value or percentage. By contrast, in other cases where both options are offered, the survey questionnaires are explicit in saying estimated percentages should only be entered if providing a monetary value is not possible. More

⁸ Although it is most often the case that this total is collected on the same survey (or pre-filled by the NSO for confirmation by the respondent), several countries do not do this and instead use information from other business data sources. One example of this is the approach used by the UK Office for National Statistics until 2019 (<https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/ecommerceandictactivity/2019#measuring-the-data>).

generally, it is quite common for questionnaires to specify that estimates should be provided whenever exact figures (monetary value or percentage) are not available.

Box 1. E-commerce value questions in the Malaysian Survey on Usage of ICT and E-commerce by Establishment 2020

6.5 Sila nyatakan jumlah pendapatan yang diterima daripada jualan barangan atau perkhidmatan menggunakan e-dagang
Please indicate the total income that receive orders from sales of goods or services via e-commerce

RM 3100

44

Jika tuan tidak dapat membekalkan nilai,
If you can't provide the value,

Sila nyatakan anggaran peratusan jumlah pendapatan yang diterima daripada jualan barangan atau perkhidmatan menggunakan e-dagang
Please indicate an estimate of the percentage of total income that receive orders from sales of goods or services via e-commerce

45 (%)

Nota / Notes:

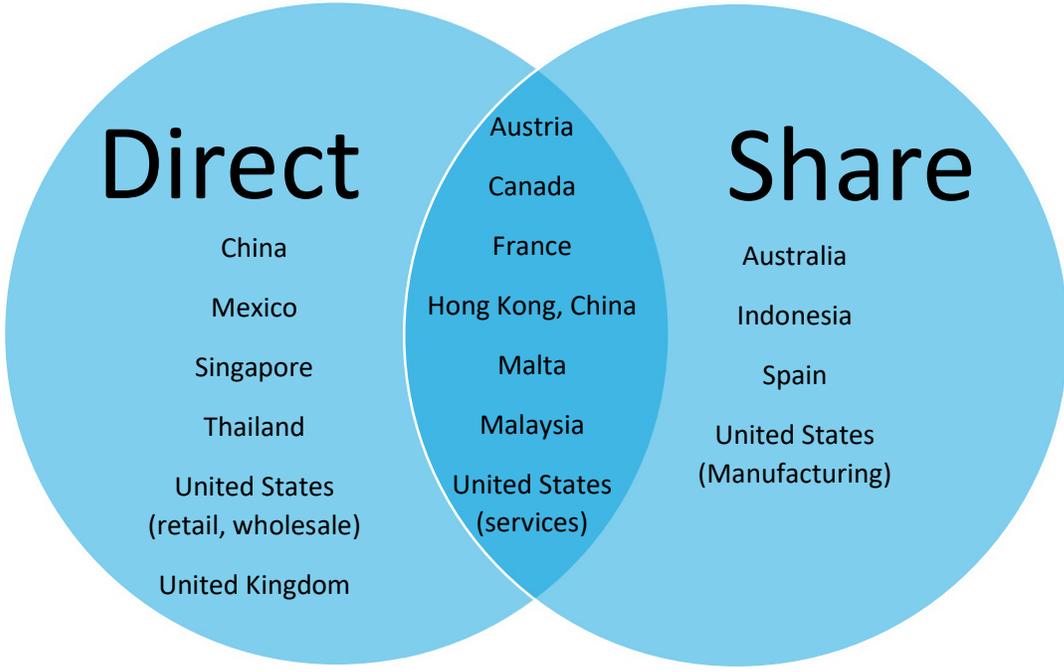
Bagi pesanan internet yang diterima bagi pihak organisasi lain, sila lapor hanya yuran atau komisen yang diterima
For internet orders received on behalf of other organisations, include only fees or commissions earned

4.2 Jumlah pendapatan (Merujuk kepada jumlah hasil kendalian / perolehan / jualan dan hasil lain)
Total income (Refers to operating revenue / turnover / sales and other revenue)

RM 080089

Source: https://www.dosm.gov.my/v1/uploads/files/2_Censuses%26Surveys/Services/ICTeC/2020/Borang-ICTeC-2020.pdf
 Note: RM refers to Malaysian Ringgit

Figure 2. Approaches to measuring the value of e-commerce, by economy



Source: UNCTAD based on national survey questionnaires and details provided by statistical agencies.

44. Of these questionnaires, only four adopt the share-based approach alone, while only two ask for either option without favouring a monetary value, and a further two ask respondents for both. It *could* therefore be suggested that this *loosely* points toward the direct approach being most preferred. Nevertheless, there is currently no clear emerging international “standard approach”.

45. Indeed, country experiences have varied, with several having changed approach over time. For example, the Australian Bureau of Statistics (2018) notes that the share-based approach was “put in place to address reporting errors previously observed when the actual dollar figure was requested”. By contrast, the new Digital Economy Survey implemented by the UK Office for National Statistics replaced the percentages requested in the previous survey with monetary reporting. One reason for this was that accurately calculating the percentage requires the respondent to have (or estimate) the monetary value and it is therefore less burdensome if they provide that amount directly.

46. In most of these economies, the main item collected is a value/percentage for total e-commerce sales. Countries which follow the Eurostat model questionnaire adopt a different approach in which two constituent components of e-commerce sales are collected: “web sales” – sales made via an online store (web shop), via web forms on a website or extranet, or via web applications (“apps”) – and “EDI-type sales”. While these components can be added to derive a total for e-commerce sales, this can have implications for the availability of breakdown information – as shown in the next section. **Box 2** looks in more detail at the information collected and available in countries participating in the European Statistical System.

Box 2. E-commerce value in the European community survey on ICT usage and e-commerce in enterprises.

Since [2011](#), the model surveys which form the basis for business ICT usage data collected in EU and other European Statistical System (ESS) countries have included questions asking respondents for the value (in national currency, excluding VAT) *or* percentage of total turnover generated through e-commerce sales. This is requested both for “web sales” (those made through websites or apps belonging to the enterprise or to a third-party online marketplace) and “EDI-type sales”. Together these two components represent all e-commerce transactions.

The data collected are used to populate a Eurostat database table entitled “[Value of e-commerce sales](#)”. However, these statistics are only available expressed as a percentage of enterprise turnover. Additional breakdowns (see section 4) are provided based on the actors involved (B2C, B2B, etc.) and the sales channels used (e.g., own website/apps, 3rd party websites/apps/marketplaces, EDI). The Eurostat model survey also distinguishes the value of sales to domestic vs foreign customers, at least for web sales, though this is not available in the Eurostat database at the time of writing.

Despite the Eurostat database focussing on turnover shares, statistics published directly by the National Statistical Offices of [Austria](#), [France](#), [Malta](#) and [Spain](#) (and also the [United Kingdom](#) when it was an EU member) show that the data collected through these surveys can be used to derive estimates of the value of e-commerce sales. Importantly, these are not only countries which collect responses in monetary values; Spain collects responses expressed as a percentage of total turnover (as did the UK up to 2019), while other countries offer respondents both monetary and percentage options.

This shows that both types of responses can be used to estimate the value of e-commerce and, as a result, ESS countries are especially well placed to develop e-commerce value measures. The development of guidance could support and encourage additional countries to use the data they have gathered to compile experimental estimates.

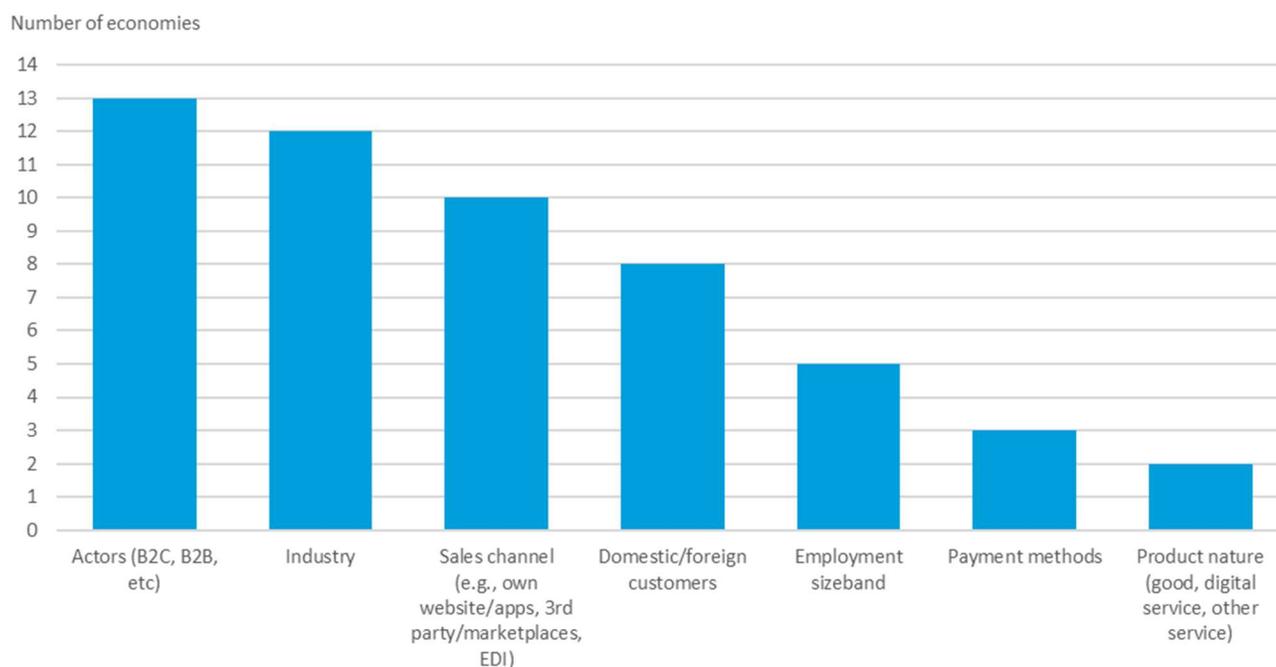
3.3 Breakdowns of total e-commerce value

47. Economies differ in the breakdowns of total e-commerce sales by businesses that they collect and/or publish. Of the 17 economies publishing e-commerce value estimates, shown in Figure 1, most have published some form of breakdown based on firm characteristics (industry classification, employment size-band, whether the firm is classed as an SME or not, etc). Two thirds publish some form of industry breakdown while only one-third disaggregate e-commerce sales by firm size. Nevertheless, considering the information collected on the survey forms and the breakdowns published for other indicators coming from the same sources, others might be able to produce estimates of e-commerce value broken down by industry and firm employment.

48. Beyond that, and given the nature of e-commerce as transactions involving (at least) two parties and facilitated by a range of different digital tools, there are several additional breakdowns that can be of relevance.

49. **Figure 3** shows the adoption of different breakdowns in the survey questionnaires and/or the business e-commerce value statistics published in the economies analyzed.

Figure 3. Number of economies by type of e-commerce breakdown
(17 economies in total)



Source: UNCTAD based on national survey questionnaires and published statistics.

Note: Austria, France: sales to domestic vs foreign customers only distinguished for web sales (not EDI-type sales). Republic of Korea: payment methods only available for the sum of B2C+C2C (consumer-to-consumer) e-commerce. United States: sales channel only collected on the annual wholesale trade survey, unavailable for enterprises in other industries.

50. Most often, these breakdowns are collected by asking respondents to provide percentages allocating the total value of e-commerce sales between different categories (which sum to 100 per cent). By contrast, some countries prioritise collection of monetary values. For example, in designing a new Digital Economy Survey for the 2021 reporting year, the UK Office for National Statistics adopted an approach which not only includes a wide range of breakdowns but also combines many of them (See **Annex 4**), with all breakdown items being requested in pounds sterling.

51. In the following sub-sections these breakdowns are examined in more detail, while the cross-border dimension is addressed in the following section.

3.3.1 Actors

52. The most widely adopted breakdown of e-commerce value is based on the actors involved in the transaction. In principle, all economic agents – businesses, households/individuals, government bodies, and non-profits – can engage in e-commerce as buyers or sellers. Even so, sellers will most often be businesses, though households are increasingly engaging in e-commerce sales. Different combinations of sellers and buyers have different policy and economic implications, hence the relevance of this breakdown. Of the 17 economies covered by this analysis, 13 implement a breakdown based on actors⁹.

53. However, there is variation in the actors covered. **Table 2** provides an overview of the options respondents are given in different surveys for dividing their e-commerce revenues according to the actors involved.

Table 2. Respondent options for categorising e-commerce revenues according to actors on survey questionnaires in different economies

B2C, B2B	B2C, B2B, B2G	B2C, B2B/G	B2B/G only	B2C, B2B, B2G+non-profit
Indonesia	Spain United Kingdom Mexico Malaysia Singapore Thailand	Austria France Malta	Canada	Hong Kong, China

Source: UNCTAD based on national survey questionnaires.

Note: B2C: sales from businesses to consumers (i.e., households/individuals)

B2B: sales from businesses to other businesses

B2G: sales from businesses to government customers

⁹ As evidenced by the questions asked on their survey and/or the resulting statistics published

54. In Canada, only sales businesses and government bodies (B2B/G) are delineated, with the assumption that the remainder of e-commerce sales are B2C.

55. Only Hong Kong, China explicitly acknowledges that non-profit organisations can be e-commerce customers and are not covered in the other groups of actors. This is relevant because, in most cases, the survey forms used require that the components add up to 100 per cent of total e-commerce. While e-commerce sales to non-profits are unlikely to be economically significant in general, it is unclear what the impacts of leaving their recording ambiguous might have on the responses received.

3.3.2 Sales channels

56. Despite being a relatively widely adopted form of breakdown, the categories offered to responding businesses vary widely across economies.

57. As noted in Box 1, countries following the European community model survey (Austria, France, Malta, Spain) do not directly collect and break down a value for total e-commerce. Instead, values for “EDI-type sales” and “web sales” are collected at the highest level. Respondents are then asked to provide an estimated percentage breakdown of web sales between those received via “your enterprise’s websites or apps” and “via e-commerce marketplace websites or apps used by several enterprises for trading goods or services”. Hong Kong, China publishes a similar breakdown. As summarised in **Table 3**, there is much more variation in other cases.

58. The United Kingdom’s new Digital Economy Survey implemented for the 2021 joins Thailand’s (business) e-commerce survey in separately categorising sales via social media. **Box 3** considers the relationship between social media and e-commerce in more detail.

Table 3. Respondent options for categorising e-commerce revenues according to sales channels on survey questionnaires in different economies

Simplified overview, precise terminology used may vary

Sales channel	Austria, France, Malta, Spain, Hong Kong SAR	Korea (Rep.)	Malaysia	Thailand	United Kingdom	United States (wholesale trade only)
Own websites /apps	✓ (incl. extranet*)		✓	✓ (Websites and apps separately)	✓	
Online market places /intermediary platforms /3 rd parties	✓	✓ **	✓	✓	✓	
EDI-type	✓				✓	✓
Private network (e.g., extranet, EDI over closed network)		✓ (incl. extranet)	✓ (incl. extranet)			
Social media				✓	✓	
Live streaming platforms				✓		
Dropship merchant sellers				✓		
Foreign websites				✓		
“Other platforms” / “others”			✓ (specify)	✓ (specify)	✓	
Online system sales (Internet, mobile, extranet, e-mail, instant messaging)						✓ (incl. extranet)
Open sales: bidding method or sales to a large number of unspecified companies		✓				

Source: UNCTAD based on national survey questionnaires and published statistics.

Note: * unknown for Hong Kong, China. ** Measured by surveying marketplace operators directly.

In its annual wholesale trade survey, the United States simply splits EDI sales from other sales (no sales channel breakdown is implemented in the other U.S. surveys). Malaysia and Korea (Rep.) take an approach where orders placed through private/closed networks are separately categorized but adopt a differing categorization for other orders.

Box 3. Social media and e-commerce

Social media comprises “forms of electronic communication (such as websites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (such as videos)” (Merriam-Webster, 2022). Social media can facilitate e-commerce in several ways:

1. **Marketing.** Social media presence can be used to direct potential customers to a business’ webstore in order to make a purchase. In this case social media plays only a marketing role, the transaction takes places elsewhere.
2. **Online shop.** Some social media services allow users to purchase products directly from posts made by sellers. For example, with “[Checkout on Facebook and Instagram](#)” sellers post about an item for sale and users viewing the post see an “add to cart” or “buy now” button through which they can purchase the item concerned. The transaction is handled within Facebook/Instagram. WeChat offers features where businesses can set up a profile page within the platform and customers can order and pay for goods and services. Purchased digital content, can even be streamed directly within the platform.

In such cases, the social media platform could be seen as playing a “hybrid” role in which it provides the infrastructure and interface for businesses to operate their own online shops (similar to Shopify) but also is facilitating a type of online marketplace with multiple sellers and buyers and a unified search function.

3. **Social media marketplace.** Some social media platforms provide an explicit online marketplace. For example, [Facebook Marketplace](#) allows individuals and [businesses](#) to “buy and sell goods locally and shipped”.
4. **Sales via social media messaging.** Messaging and communication features are a key element of social media. These provide an online means for sellers and buyers to discuss and agree on transactions, often with payment taking place offline (e.g., on collection). Such transactions are most likely to be relevant for small businesses and especially in developing countries where the financial resources and skills needed to set up and manage a web shop can pose a significant barrier.

At the other end of the spectrum, some highly digitalised companies are adopting messenger “bots” through which customers can place orders by responding to automated questions. One example is “Dom” the [Dominos Pizza Facebook Messenger bot](#).

Several issues and questions arise from the multi-faceted role of social media in e-commerce. In cases 2-4 above, the social media platform/service is the channel through which the order is placed/received, but how this is achieved varies.

The case of sales via social media messaging involving humans discussing and agreeing transactions via manually typed messages is identical in substance to agreement via manually typed emails. As shown in Table 1 countries vary in including or excluding such transactions from measures of e-commerce. When a human is communicating with a bot, such that their messages (even when manually typed) are automatically processed, responded to, and the result is an order being placed, there is a strong argument to be made for these orders being included within the scope of e-commerce. None of the surveys analysed (including those addressing social media sales more generally) specifically addresses orders placed via manually typed social media messages, though the US annual wholesale trade survey states that sales by “instant messaging” are included alongside sales by e-mail and other components within “online system sales”.

On a more practical level, businesses making sales on social media platforms may well struggle to place such sales within the most widely used breakdown structure where sales through “online marketplaces” are distinguished from sales made through the business’ “own website or apps”.

Perhaps as a response to this, several countries have implemented separate categories for reporting social media sales. The UK Office for National Statistics specifically asks for “turnover from e-commerce sales via this business’ own social media” alongside turnover from other channels including the respondents’ own website/apps and online marketplaces (Office for National Statistics, 2022).

Thailand (Electronic Transactions Development Agency, 2019) includes two relevant categories among the eight online sales channels offered for breaking down the value of product/service sales “social media” and “live streaming platform (such as Facebook Live or Instagram Story)”. Following from this is the following question:

5.1) What was the percentage share of the value of product/service sales via different social media?

<input type="checkbox"/>	Facebook					%
<input type="checkbox"/>	Line					%
<input type="checkbox"/>	Instagram					%
<input type="checkbox"/>	WeChat					%
<input type="checkbox"/>	YouTube					%
<input type="checkbox"/>	Twitter					%
<input type="checkbox"/>	อื่น ๆ รวม.....					%
Total =		1	0	0		0 %

The variety of ways in which social networks can facilitate e-commerce transactions, and the difficulty with which these fit into common categorisations of e-commerce sales channels suggest an area where statistical guidance may be beneficial to support countries in measuring the value of e-commerce in a robust and consistent way.

3.3.3 Payment methods

59. Three economies publish a breakdown of e-commerce sales by payment methods. Most straightforwardly, Hong Kong, China breaks out the portion of transactions paid online vs other modes of payment (Census and Statistics Department, 2022). Korea (Rep.) publishes a split of the total for B2C+C2C (consumer-to-consumer) e-commerce transactions according to whether payment was made by money transfer, credit cards, e-money, or other means (Statistics Korea, 2014). Finally, Thailand’s e-commerce survey collects a percentage split of the responding business’ e-commerce sales revenues across 12 different means of payment from cards to cash to cryptocurrency (Electronic Transactions Development Agency, 2019, p. 113).

3.3.4 Product nature

60. The Canadian survey of digital technology and Internet use 2021 and the UK Digital Economy survey ask responding businesses to break down their total e-commerce revenue according to whether the product supplied was:

- A (physical) good
- A digitally delivered service
- An other (non-digitally delivered) service

61. This relatively simple categorization offers insights into the functioning of the business, their extent of digitalization, etc. It also provides information that is crucial when using statistics on cross-border e-commerce to measure digital trade, as covered in the following section.

62. This section has demonstrated the wide variation in both the types of breakdowns collected and the specific categories and details implemented in different surveys. This wide range of choice poses a challenge for countries looking to start measuring the value of e-commerce as there is no clear international set of priorities or model to follow regarding breakdowns for e-commerce. The development of internationally agreed guidelines would help to address this.

3.4 Cross-border e-commerce

63. When it comes to assessing the economic role of e-commerce, aside from the overall value of e-commerce sales, one of the most important details is the distinction between domestic transactions and those involving customers abroad. This gives crucial insight into the extent to which firms are using e-commerce to engage with global markets and generate export revenues, which contribute directly to GDP and economic growth. Cross-border e-commerce is one component of digital trade (see **Box 4**).

64. Digitalization has the potential to significantly reduce the barriers firms face in pursuing export opportunities. This is especially the case for small and medium enterprises for which the costs and risks of doing so may often be insurmountable if exporting entails travelling abroad to find potential customers and agree orders. The possibility of having a “global shop window” online, fundamentally changes firms’ ability to find customers abroad (as well as domestically). E-commerce provides the means to receive orders from those customers in a straightforward – often automated – way. It therefore has the potential to drive trade in all countries, but it is in developing countries where e-commerce offers the greatest opportunities to surmount entrenched barriers and spur trade participation. E-commerce should thus enable exports and has the potential to contribute a significant portion of export earnings.

65. E-commerce not only fuels exports but also imports. This can offer access to greater choice and lower prices but can also subject domestic producers to increased competition from abroad. Without widely available estimates of the value of cross-border e-commerce, the scope for linking e-commerce to trade, growth, employment, and development, as well as to examine whether e-commerce is promoting additional trade or mainly substituting pre-existing ordering channels in different countries and contexts is severely limited.

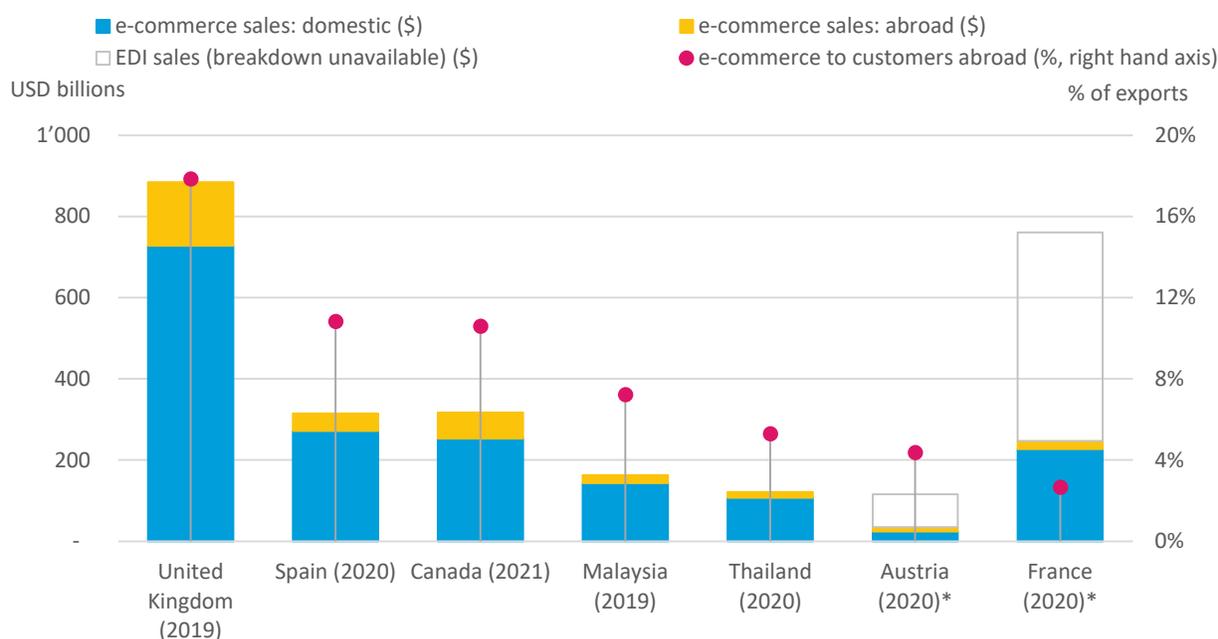
66. Few countries have published statistics on the value of business’ cross-border e-commerce sales, as shown in **Figure 4**. Many more countries have collected relevant information (see Section 3.5), most notably those following the European community model surveys which included a breakdown of web sales (but not EDI-type sales) into those going to domestic

customers, customers in other EU countries, and customers outside the EU as mandatory variables in 2021 (reporting year 2020 for e-commerce questions), having previously featured this as an optional breakdown in 2019 and 2017.

67. Among countries which have published either a direct value for cross-border e-commerce sales by businesses, or a percentage share which can be applied to the published total value of e-commerce, cross-border sales comprise 16 per cent of e-commerce sales revenue on average. France has the lowest share, at 8 per cent while in Malaysia and Thailand, exports account for 12 per cent of e-commerce sales.

68. Austria and France have not followed Spain in going beyond the provisions of the EU implementing regulation¹⁰ to break down EDI-type sales. As such their figures reflect “web sales” only. These sales comprise a smaller portion of total e-commerce sales by businesses in Austria and France, at around 30 per cent, than in Spain (40 per cent) and the United Kingdom (50 per cent).

Figure 4. E-commerce sales, domestic and abroad, 2020 or latest year available
\$ billions and percentage of goods and services exports



Source: UNCTAD based on national sources, UNCTAD International Merchandise Trade database, and UNCTAD International Trade in Services database (<https://unctadstat.unctad.org/>).

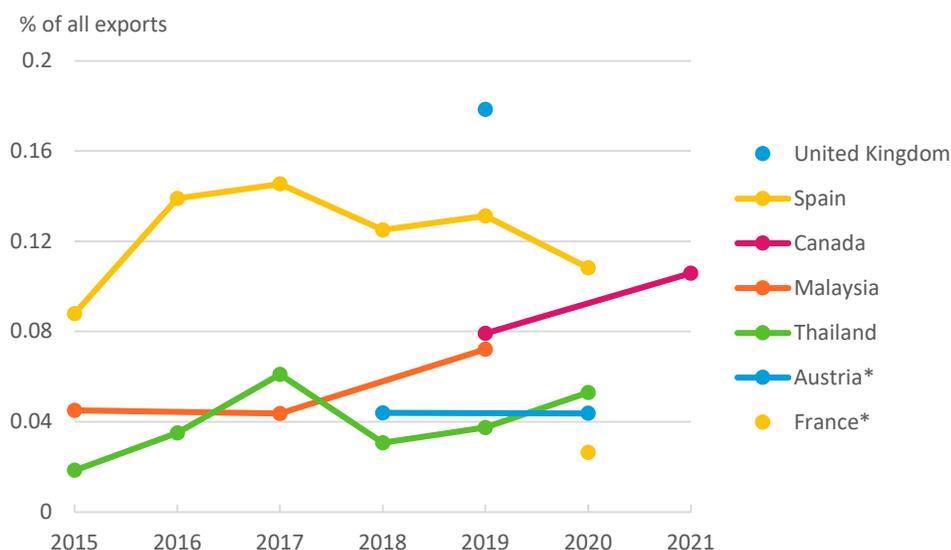
Note: Sales by businesses only. * for Austria and France, EDI sales are not available broken down based on whether the customer is located domestically or abroad, as such the domestic/abroad breakdown reflects the value of “web sales” only. For all other countries the figures shown include both EDI-type and web sales. Business e-commerce export and total export figures are based on different data sources, this presentation is based on the assumption that the resulting statistics can be treated as mutually compatible.

¹⁰ Commission implementing regulation (EU) 2020/1030 available at <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R1030&from=EN>

69. For the countries shown (excluding Austria and France), e-commerce sales abroad equate to around 10 per cent of total goods and services exports on average. This ranges from 5 per cent in Thailand and 7 per cent in Malaysia to 18 per cent in the United Kingdom. If exports comprise a similar portion of EDI sales in Austria and France as in the UK and Spain - around 14 per cent - the share of cross-border e-commerce sales could amount to 12 per cent of all goods and services exports in France and over one-third in Austria. That these latter figures *could* be so high, but are in fact unknown, illustrates the importance of harmonising the measures available across countries.

70. **Figure 5** presents the evolution of e-commerce sales abroad, as a percentage of total goods and services exports (though the figures for Austria and France are based on “web sales” only). In the countries for which time-series are available, e-commerce sales have not uniformly increased over time, even prior to the pandemic disruption of 2020 onward. Both Spain and Thailand experienced a marked decline in the share from 2017 to 2018; in both cases the monetary value of e-commerce exports fell while total goods and services exports continued to grow (in current prices).

Figure 5. E-commerce exports, 2015-2020
Percentage of total goods and services exports



Source: UNCTAD based on national sources, UNCTAD International Merchandise Trade database, and UNCTAD International Trade in Services database (<https://unctadstat.unctad.org/>).

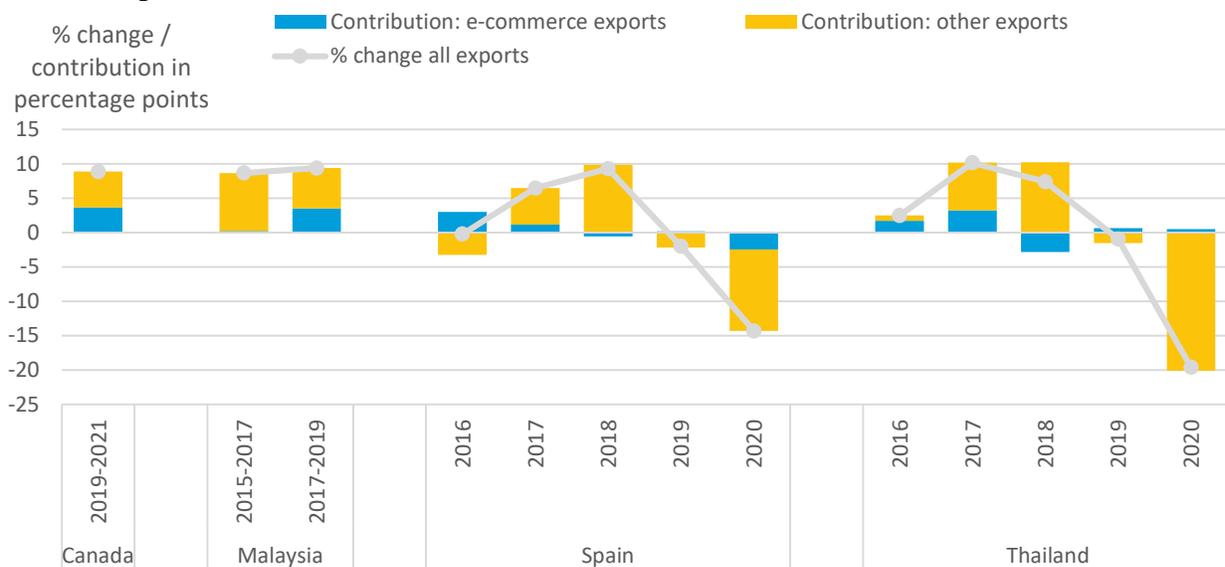
Note: Exports by businesses only. * “web services” only, excludes EDI-type export sales. Business e-commerce export and total export figures are based on different data sources, this presentation is based on the assumption that the resulting statistics can be treated as mutually compatible.

71. In Thailand, although the overall value of e-commerce sales increased throughout the period, the cross-border share declined from 23 per cent in 2017 to around 9 per cent in 2018 and 2019. Reasons given for this include “partly because more payment gateway businesses from other countries such as Alipay and WeChat Pay entered Thai market” and “The continual increase of foreign tourists especially Chinese tourists that come to visit Thailand also

contributes to the cutback of international trade. In addition, the availability of e-Payment systems at tourist destinations also encourages e-commerce operators to focus on domestic sales rather than international sales” (Electronic Transactions Development Agency, 2019).

72. Business cross border e-commerce sales have tended to contribute positively to exports in Canada, Malaysia, Spain, and Thailand (**Figure 6**), with various examples of strong positive contributions (e.g., contributing over a third of total export growth) and of e-commerce exports growing despite an overall downturn in exports. Nevertheless, there is considerable variation in the contribution of e-commerce exports between countries and especially between periods. More widely available, and statistically harmonised, figures are needed to allow analysis of the relationship between e-commerce and exports to draw general conclusions.

Figure 6. E-commerce exports by businesses, contribution to change in total goods and services exports, selected countries, 2015-2021



Source: UNCTAD based on national sources, UNCTAD International Merchandise Trade database, and UNCTAD International Trade in Services database (<https://unctadstat.unctad.org/>).

Note: Exports by businesses only. Contributions, in percentage points, of business e-commerce exports and other exports to the percentage change in total exports of goods and services. Figures represent annual changes except for Canada and Malaysia, where the change is calculated over the interval shown. Business e-commerce export and total export figures are based on different data sources, this presentation is based on the assumption that the resulting statistics can be treated as mutually compatible.

73. The breakdown between sales to domestic customers and those abroad is collected in much the same way as others highlighted in Section 3.3. Responding businesses are asked to report a total value for their e-commerce sales (as a monetary value or a percentage of turnover), and most commonly to provide percentage shares for the domestic and abroad components – with these two summing to 100 per cent. The Value of E-commerce Survey in Thailand (Electronic Transactions Development Agency, 2019) offers an instructive example of this approach:

4.8) In 2018, what were the domestic and international percentage shares of the value of product/service sales made via the internet?

Domestic _____ % International _____ %

74. Several countries, including Canada and the United Kingdom (see Annex 4), go further by asking respondents about the value of e-commerce sales to customers in different countries or regions. In the Canadian Survey of Digital Technology and Internet Use (Statistics Canada, 2021), sales to customers abroad can be calculated by aggregating responses to items b-i. Further examples are presented in Annexes 3 and 4.

26 What percentage of this business's gross sales conducted over the Internet were obtained from each of these regions in 2021?

If precise figures are not available or the year is not yet complete, please provide your best estimate.

Enter "0" if this business did not make any sales to a particular region.

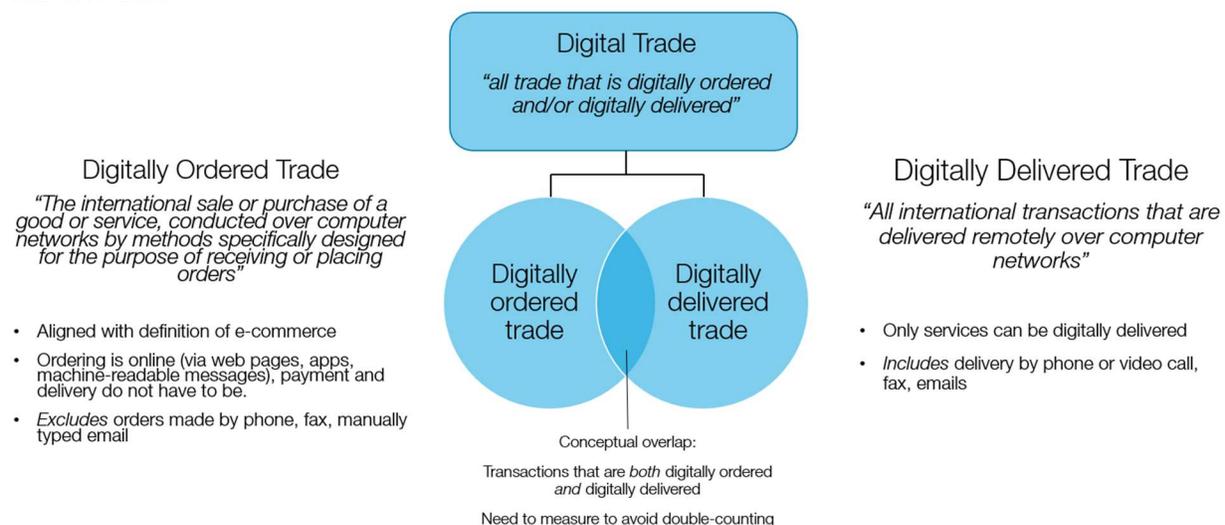
- a: Canada
- b: United States
- c: Mexico
- d: Other Latin America and the Caribbean
- e: China
- f: Other Asia
- g: The European Union
- h: The United Kingdom
- i: Other regions

75. Respondents may face difficulties in identifying where their customers are located. Indeed, results from the aforementioned survey by Statistics Canada show that 5.5 per cent of businesses did not know whether their customers were located in Canada or outside. This issue is related to firm size, with 9 per cent of medium-sized enterprises (by employment) and 12 per cent of large enterprises being unable to identify customer locations, whereas only 4 per cent of small enterprises reported this issue – perhaps because smaller enterprises are more likely to have personal relationships with their customers. The extent of this difficulty may also depend on what products the company sells via e-commerce. Shipping goods to a location abroad is likely to provide a reasonably reliable indication of cross-border e-commerce. For services, especially digitally deliverable services (i.e., those that can be delivered via computer networks), identifying customer location may be more difficult. **Box 4** sets out the relationship between e-commerce (digital ordering) and digital delivery within the framework for measuring digital trade.

76. Overall, the Canadian findings suggest that the strong majority of firms are able to provide the relevant information. Furthermore, the same challenges are encountered more generally in measuring trade. The approaches and mitigation measures used in trade sources might provide a useful foundation for developing statistical guidelines on measuring cross-border e-commerce.

Box 4. Cross-border e-commerce in the framework for measuring Digital Trade

The *OECD-WTO-IMF-UNCTAD Handbook on Measuring Digital Trade* (forthcoming) sets out definitions and a conceptual framework for measuring digital trade, along with a wide range of related country experience using various data sources. Digital trade is comprised of two constituent concepts: digitally ordered trade, and digitally delivered trade.



The definition of digitally ordered trade is aligned with the 2009 definition of e-commerce transactions (OECD, 2011), though with the focus being on international transactions. For this reason, efforts to measure the value of e-commerce sales, and to further distinguish cross-border e-commerce, can act as a direct input to measuring digital trade. Various items in the reporting template for digital trade can be measured using ICT usage/e-commerce surveys, with business cross-border e-commerce sales and purchases typically being the biggest component of digitally ordered trade.

Given the conceptual overlap illustrated above, total digital trade cannot simply be calculated by summing digitally ordered trade and digitally delivered trade; it is necessary to subtract the value of transactions that were *both digitally ordered and digitally delivered* to avoid double counting. Canada and the United Kingdom have demonstrated that business ICT/e-commerce surveys can be used to collect information on the products being sold (goods, digitally delivered services, or other services) and this can be used to derive the relevant adjustment. In Canada, digitally delivered services comprise just under 20 per cent of total e-commerce sales by businesses (Statistics Canada, 2022). Where other sources are used to estimate the monetary value of e-commerce transactions, these can be similarly adapted to identify cross-border sales.

Table 2.1. Reporting template for digital trade

			Total exports	Total imports
1.	Total Digital Trade	2+3 minus 2.2.a		
2.	Digitally Ordered Trade	2.1+2.2		
2.1	Goods			
2.1.a	of which: via DIPs			
2.2	Services			
2.2.a	of which: digitally delivered	=3.1		
2.2.b	of which: via DIPs			
3.	Digitally Delivered Trade	3.1+3.2		
3.1	Of which: Digitally ordered services	=2.2.a		
3.1.a	of which: via DIPs			
3.1.b	of which: digital intermediation services			
3.2	Of which: not digitally ordered services			
	Addendum items			
A.1	Digital trade in services	2.2+3 minus 2.2.a		
A.2	Digitally deliverable services	>3		

Note: Transactions should be broken down by relevant product groupings (EBOPS 2010 for services, and for example, CPC for goods). Note: '1. Total Digital Trade' and 'A.1 Digital trade in services' can also both be calculated subtracting item 3.1 instead of 2.2.a, as conceptually these are the same. However, depending on what surveys countries use for capturing digital trade, and the fact that it may be calculated as a residual, this may not be the case.

An UNCTAD policy brief on "Digital Trade: opportunities and actions for developing countries" available at <https://unctad.org/webflyer/digital-trade-opportunities-and-actions-developing-countries>

77. In sum, this sub-section has set out the analytical and policy relevance of measuring cross-border e-commerce to understand the extent to which e-commerce is facilitating exports and economic growth, and thereby has the potential to contribute to economic development. Cross-border e-commerce is also an important component of measures of digital trade. This is both in terms of exports and imports. Although the main focus in this analysis is on measuring exports it should not be forgotten that measures of e-commerce imports are also needed to understand the relationship between digital trade, economic growth, and development.

78. Few countries have published statistics on the value of cross-border e-commerce (or details allowing it to be derived). Furthermore, although the general approach used is to collect this as a breakdown of the total value of e-commerce sales, there are differences in implementation across countries. This suggests the need for international discussion and agreement over how cross-border e-commerce should be measured. This could provide a basis for statistical guidelines to support countries in delineating cross-border sales from total e-commerce and thereby contribute to the wider availability of statistics on digitally ordered trade.

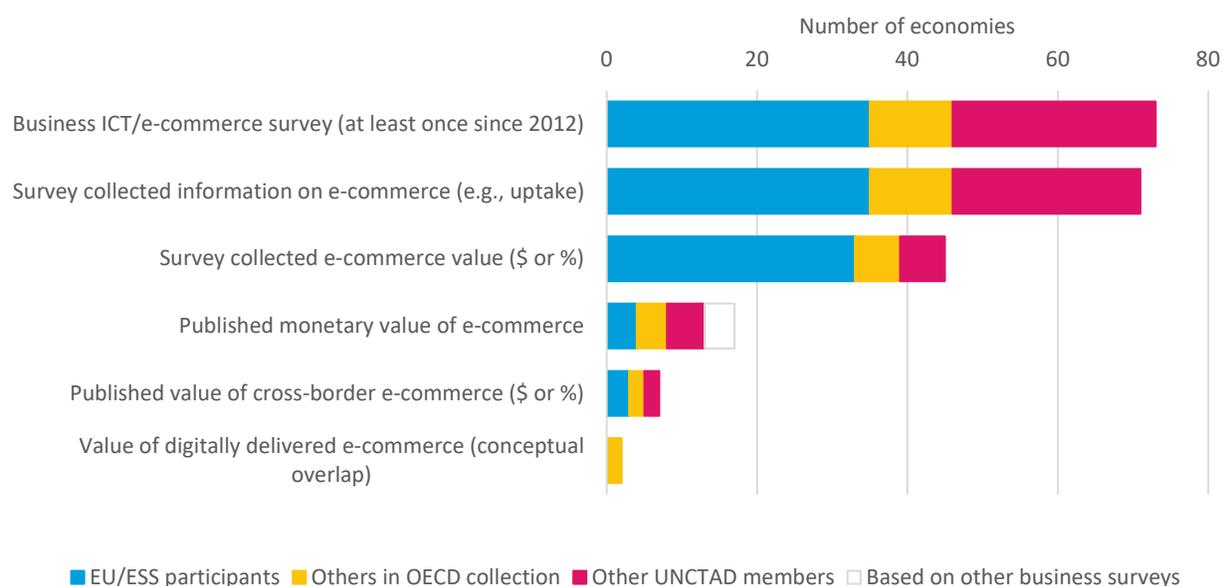
3.5 Survey types, coverage, and methods

79. In a similar way as for the definitions and survey questions used to measure the value of e-commerce, and the breakdown information collected, there is variation in the survey vehicles used to collect information on e-commerce in different economies.

80. Among the 17 economies that have published estimates of the value of e-commerce sales (Figure 1), 13 collected this information using surveys of e-commerce and/or ICT usage in business, or similarly specific surveys (for example, Australia's figures come from a "business characteristics survey" focused on innovation activities and ICT usage). In EU countries, annual business ICT surveys are mandated by law, and many of the other ESS and OECD countries conduct surveys either annually or biennially (Figure 7). Additionally, of the roughly 50 economies that have submitted statistics for inclusion in the UNCTAD core indicators on ICT use in business database since 2012, the figures for 27 of these are based on business ICT usage surveys. In total, it is estimated that nearly 80 economies have conducted such a survey in the period since 2012, with the majority of these recurring on an annual basis.

81. Business ICT usage surveys have long provided a platform for investigating e-commerce; responses confirming whether (or not) businesses make sales via e-commerce are used widely to compute the "proportion of businesses receiving orders over the Internet", one of the core indicators of the Partnership on Measuring ICT for Development (UNCTAD, 2021a). Because of this, and because such surveys often collect the business' total revenue, they can provide a natural basis for further questions investigating the value of e-commerce sales.

Figure 7. Business surveys used to measure e-commerce



Source: UNCTAD based on national sources, Eurostat Digital Economy and Society Indicators Database, OECD ICT Access and Usage by Businesses database, UNCTAD core indicators on ICT use in business database.

Note: EU = European Union, ESS = European Statistical System. The ESS includes EU countries as well as Iceland, Norway, Turkey, and the non-EU Balkan states. These countries generally follow the Eurostat model survey on e-commerce and ICT usage in business. “Others in OECD collection” comprises non-EU OECD members Australia, Canada, Colombia, Israel, Japan, Korea, Mexico, New Zealand, Switzerland, and the United Kingdom, as well as Brazil, which participates in the annual OECD collection. Although it is an OECD member, the United States does not conduct business ICT usage surveys. “Other UNCTAD members” refers to all other economies; these have been identified as performing business ICT usage surveys based on source information provided to UNCTAD when submitting statistics for inclusion in the database of core indicators on ICT usage in business. Several countries have published e-commerce value figures based on other surveys: Japan, Singapore, Philippines, and the United States.

82. Nevertheless, four of the series presented in Figure 1 are derived from other survey sources. Japan takes a unique, conducting “Market research on e-commerce” (see **Box 5**). Meanwhile, the figures for Singapore are collected through the Annual (services) Industry Survey (and for this reason are only representative of services industries). In the United States, the Services Annual Survey is one of four annual sectoral surveys - the others covering manufacturing, retail trades, and wholesale trades – which collectively give a figure for e-commerce sales across most businesses.

83. The Philippines conducted a biennial “Survey on Information and Communication Technology” up until 2017 and this included questions on both the value of e-commerce sales and the split between sales to domestic and overseas customers. The survey form is available online and key details from it are included in this report¹¹. However, the results arising from those specific questions do not appear to have been published and the series in Figure 1 instead

¹¹ Survey on Information and Communication Technology available at <https://psa.gov.ph/content/survey-information-and-communication-technology-sict>

comes from the “Annual Survey of Philippine Business and Industry”, a general business activity survey (for which the survey form does not appear to be available online).

84. More generally, a significant minority of the economies which have submitted the indicator “Proportion of businesses receiving orders over the Internet” for inclusion the UNCTAD core indicators on ICT use in business database have measured this using other business surveys, with general surveys of business activity being the most commonly used survey vehicle. Such surveys typically collect a wide range of information about businesses’ activities and, in particular, a wider range of financial information, of which the value of e-commerce sales is one example. Often these surveys have the largest sample size of all business surveys in a given economy. This suggests that other surveys might also offer a viable platform to measure the value of cross-border e-commerce and any statistical guidance developed should consider this alongside surveys of business ICT usage/e-commerce.

85. Regardless of the precise surveys and methods used, there are differences in survey coverage that are likely to impact comparability across economies. Most notably, this relates to the industries and firm sizes covered, as shown in **Figure 8**.

86. There is, therefore, considerable variation in the industries covered by measures of the value of business e-commerce. In Malaysia, the Survey on Usage of ICT and e-commerce by Establishment “encompasses all economic sectors in Malaysia classified under the Malaysia Standard Industrial Classification (MSIC)”¹². At the other end of the scale, the United Kingdom and Thailand, which have among the most extensive surveys in terms of details collected, are more narrowly focused in terms of the industries targeted. The figures published by Singapore cover only service industries. Meanwhile, the four EU countries which have published business e-commerce value numbers follow the EU requirements in adopting a relatively limited scope of coverage, excluding Arts, entertainment, and recreation, Financial and Insurance services, Health and Education Services.

87. The extent to which more limited coverage of industries will reduce the exhaustiveness of estimates of e-commerce by businesses is not clear. The industry sections covered by the EU and United Kingdom surveys comprised 98 per cent of total e-commerce sales by businesses in China (2020) and the Philippines (2017). However, the total for China does not include section K finance and insurance, and the series for the Philippines only shows e-commerce sales as having been recorded in industry sections A (agriculture, forestry and fishing), P (education), and R (arts, entertainment and recreation), not in other industry sections not covered in the EU and United Kingdom surveys.

¹² Survey on Usage of ICT and e-Commerce by Establishment available at www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=ZmpBKzc4T2pFTXVNUW1NcHRFMHhGQT09

Figure 8. Business coverage of e-commerce value measures

Darker shading indicates more complete coverage of classes within each industry section



Source: UNCTAD based on national sources.

Note: Countries may vary in the inclusion or exclusion of non-employer firms (i.e., firms with zero persons employed). Some countries adopt national or regional variants of the International Standard Industrial Classification (ISIC Rev. 4), these have been mapped to the ISIC sections shown.

Australia: Excludes employing businesses with <50 employees that did not remit under the pay-as-you-go withholding scheme. Section K Financial Asset Investing (ANZIC 624) and Superannuation funds (633); section S excludes Religious Services (954) and Civic, professional, and other interest group services (955). Canada: minimum revenue thresholds of CA\$100k or CA\$250k apply depending on industry. Section F excludes speciality trade contractors (NAICS 238); section O excludes Head Offices (551114). China: breakdown as published in “[business] Sales of e-commerce by Industry”, figures cover firms “above designated size” according to financial thresholds that vary by industry. Philippines: coverage refers to the Annual Survey of Philippine Business and Industry (ASPBI), which is the source for the series presented in Figure 1. The ASPBI covers all establishments except those with a total employment of less than 10 and only one single establishment (i.e., single proprietorships are only included if they have branches and/or >10 employment). Singapore: Figures come from the Annual Survey of Services, which only covers service industries. Individual self-employed persons who are not registered with the Accounting & Corporate Regulatory Authority (ACRA), such as taxi drivers, hawkers and stall-holders, independent artistes are excluded. Spain: although the business ICT survey covers them, the published business e-commerce estimates exclude food and beverage services (NACE 56) and repair of computers and communication equipment (NACE 951). Thailand: Section K comprises insurance services only. United Kingdom: reflects coverage of the 2019 survey; coverage information for the 2021 survey has not yet been published. EU countries and United Kingdom: Section M excludes veterinary services; section S comprises 95.1 repair of computers and communication equipment only.

88. In considering industry coverage it should be noted that COVID-19 pandemic is likely to have vastly increased the uptake of e-commerce across industries in many economies. For example, the latest statistics available from Canada show that the share of businesses receiving orders over the Internet increased from a quarter in 2019 (before the pandemic), to one third in 2021. By 2021, over half of Educational services firms in Canada were receiving orders online, while the share for Arts, entertainment and recreation reached nearly 60 per cent. In Finance and insurance, the share of firms making sales online increased from 22 per cent in 2019 to 26 per

cent in 2021 and the share in Healthcare and social assistance increased slightly, to 10 per cent. Most strikingly, the portion of firms in Mining, quarrying, and oil and gas extraction which sell online almost doubled, to 15 per cent in 2021. Overall, these additional industries covered in the Canadian survey, compared to those in the EU countries and United Kingdom, account for around 15 per cent of total gross sales conducted over the Internet by businesses, or CA\$ 50 billion (US\$ 40 billion) (Statistics Canada, 2022).

89. With respect to firm size, the main point of variation relates to the coverage of enterprises with fewer than 10 persons employed (commonly referred to as “microenterprises”). In one third of the economies shown these are not covered at all, while in Canada coverage starts at five persons employed. Although e-commerce tends to be more widely adopted among larger businesses, it is increasingly important as a basis on which individuals can create small businesses (e.g., selling handmade items online). In the United Kingdom, e-commerce by firms with 0-9 employees was worth GB£24 billion (US\$31 billion) in 2019, around 3.5 per cent of the total. Microenterprises accounted for 6.4 per cent of sales made via websites and apps (i.e., excluding EDI sales) and 8 per cent of B2C sales.

90. Most of the economies examined in this analysis use industry and firm employment as criteria for a stratified sample design, though several complement these with other variables. For example, in France, strata are determined by industry, employment, and turnover¹³. There is variation also in other aspects of survey methodology including:

- Whether the sample is drawn from a business register or other list (such as a list of known e-commerce operators)
- Sample size
- Legislative framework, including whether response is mandatory
- Survey modes used (online or postal surveys, telephone or face-to-face interviews, etc.)
- Processing including follow-up of unusual responses, treatment of non-response, etc.

91. Variation in survey methods and design is not uncommon, and certainly not limited to e-commerce measurement. Nevertheless, it has to be acknowledged that these differences may impact the results found and therefore the ability to make international comparisons. In particular, Japan takes a markedly different approach to others presented here, relying primarily on an analysis of publicly available information from various sources, alongside limited interviews with businesses and industry bodies (see **Box 5**).

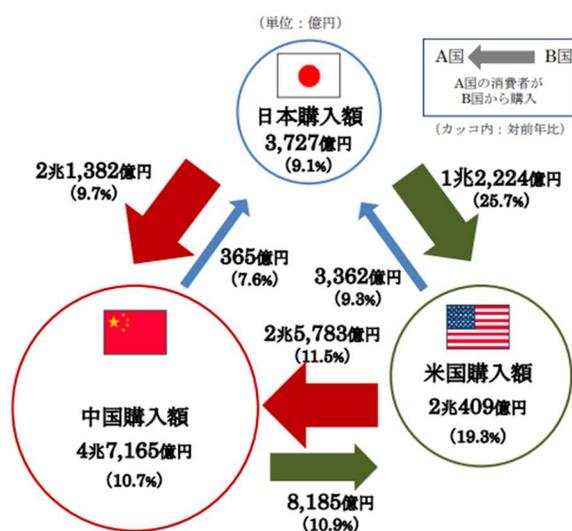
¹³ Methodology of the survey on information and communication technologies in business (ICT) available (in English and French) at <https://www.insee.fr/en/metadonnees/source/operation/s1555/documentation-methodologique>

Box 5. Japan “Market research on e-commerce”

Since 2005, the Ministry of Economy, Trade, and Industry (METI), Japan has worked with private sector research partners to conduct “Market research on e-commerce”. Key outputs arising from this include estimates of the “scale of the domestic e-commerce market” covering B2B and B2C transactions from 2013 onward (i.e., a measure of “business e-commerce”, presented in Figure 1). In addition, the report¹ includes figures on bi-lateral e-commerce flows between Japan and its two main trading partners - the United States and China.

Cross-border e-commerce market size between Japan, the United States and China

Arrows indicate cross-border e-commerce flows



Source: reproduced from (METI, 2021).

Importantly, these statistics are not based solely on a business ICT usage / e-commerce survey. The first part of the approach consists of a “public information survey” that collects and analyses “newspapers, magazines, industry journals, government statistics and reports, various papers, research company reports, commercial database information, business and media website information, etc. in Japan, the U.S. and China”². The second element informing the estimation is “business surveys and interviews” with operators and industry associations “developing” domestic and cross-border e-commerce”. It should be noted that these are at a “general” level and do not comprise detailed questions requiring specific responses.

In China and the United States, the targets are “Businesses developing cross-border e-commerce” which include “Japanese businesses that have established local subsidiaries in the US or China and are conducting e-commerce targeting consumers in those countries” and “US or Chinese businesses that are conducting e-commerce targeting consumers outside their own country”².

As subsidiaries of Japanese firms located in the US and China are included, this implies a broader scope of export flows than if only domestic firms were covered. At the same time, though, clearly this only gives a partial view of Japan’s cross-border e-commerce. For this reason, Japan is not included in the analysis in Section 5.

¹ https://www.meti.go.jp/english/press/2022/0812_002.html (in English)

² <https://www.meti.go.jp/press/2022/08/20220812005/20220812005-h.pdf> (in Japanese, translated using Google Translate and DeepL).

92. This section has shown that business ICT and/or e-commerce surveys are the most common source for the e-commerce value estimates that have been published by National Statistical Organisations. Furthermore, a considerable portion of those countries with such surveys have collected information on the monetary value of e-commerce sales, even if they have not taken the steps of deriving and publishing experimental estimates.

93. Nevertheless, other business surveys can also be used to gather information on the value of e-commerce, and these represent a significant minority of the cases presented. Any statistical guidance developed to support countries in measuring e-commerce must account for these differences while also looking to encourage international comparability.

94. Beyond the data sources used, differences in the industries and sizes of the firms covered by these sources may also affect the comprehensiveness of e-commerce statistics, impacting their usefulness as a basis for policymaking as well as the ability to make comparisons across countries. Statistical guidelines could assess the need for harmonisation as well as seeking to establish criteria for prioritising industries and firm size bands for coverage in measures of the value of e-commerce.

7. Conclusions

95. This analysis provides a description of the current situation regarding measures of the value of e-commerce, including cross-border e-commerce, for a number of economies for which statistics are available. While the sample may not be exhaustive, it is broadly representative to give an overall view of measurement practices. The focus is on business e-commerce which is the main component of e-commerce.

96. There is a considerable variety of statistics available from various economies, but they also exhibit considerable variation in terms of definitions, approaches to e-commerce value, survey questions, data sources, methods, and scopes underpinning them. Furthermore, this analysis illustrates that, in the vast majority of economies, there are simply no national statistics on the value of e-commerce. Moreover, so far, primarily statistics on e-commerce sales are available, which implies that cross-border e-commerce statistics mainly refer to exports and rarely to imports.

97. Measuring e-commerce is a prerequisite for truly understanding its economic role and contribution to GDP, employment, and development, as well as for evidence-based policymaking. For development purposes, it is important to know whether e-commerce complements or just replaces offline commerce. Beyond estimating total e-commerce, the distinction between domestic and cross-border e-commerce would allow the contribution of e-commerce to international trade to be understood. In this context, it is important to understand to what extent e-commerce contributes to exports and imports, essentially whether the cross-border (trade) balance is positive. When e-commerce drives a greater increase in imports than of exports, it may not contribute positively to economic development.

98. There is a need to take action to support the development of robust, exhaustive, and internationally comparable statistics on the value of e-commerce across countries – including both developed and developing countries. A logical next step would be to discuss the advantages and disadvantages of the different approaches described in this analysis and consider the potential for standard measures. This could then lead to developing appropriate statistical guidelines to measure e-commerce.

99. Such an effort would necessarily rely on the experience and expertise of the economies covered in this analysis, and others interested in contributing to guidelines that are relevant and useful for all. Within its mandate “to advance cooperation on measuring e-commerce and the digital economy and enhance the availability, quality, comparability, usability, and relevance of

statistics concerning e-commerce and the digital economy” the WG-ECDE is well placed to take up this challenge.

100. To that end, the Working Group should consider to:

1. Agree that UNCTAD should further progress in analysing and assessing the advantages and disadvantages of existing measures of e-commerce in different countries as well as the potential for standardization, with a view to develop statistical guidelines on measuring the value of e-commerce (including cross-border e-commerce).
2. Agree that a task group of interested Working Group participants should be established to guide, oversee, and actively undertake the development of the necessary measurement standards and guidelines.

Annex 1. E-commerce definitional text from business survey questionnaire forms

Australia	<p>An order via the internet is a transaction where the commitment to purchase goods or services is made via the internet regardless of how it was commenced. Commitment is the agreement to purchase, whether or not payment is made via the internet.</p> <p><i>Including</i></p> <ul style="list-style-type: none"> • Orders received via the internet with or without online payment • Orders received via email <p><i>Excluding</i></p> <ul style="list-style-type: none"> • Orders covered by a pre-existing contractual arrangement where the commitment was not made via the internet • Orders completed via telephone, facsimile or personal contact • Orders received over any computer network other than the internet • Cancelled internet orders <p>Source: survey questionnaire provided by Australian Bureau of Statistics.</p>
Austria	<p>E-commerce sales are sales, orders or bookings of goods or services via</p> <ul style="list-style-type: none"> - websites, apps or online marketplaces; - EDI-based systems. <p>Sales, orders or bookings made with e-mails are excluded unless they are created automatically. Payment and delivery do not necessarily have to be carried out electronically.</p> <p>Source: https://www.statistik.at/stdoku/subdokumente/b_ikt-einsatz_in_unternehmen_ab_2005_fragebogen_2021.pdf</p>
Canada	<p>Include:</p> <ul style="list-style-type: none"> - all sales of this business's goods or services where the order was received, and the commitment to purchase was made, over the Internet, including through web pages, extranet or Electronic Data Interchange (EDI). Payment can be made by other means. - sales made on company and third-party websites and apps. <p>Exclude:</p> <ul style="list-style-type: none"> - the delivery of digital products and services for which orders were not made online. - orders received or commitments to purchase made by telephone, facsimile or email. <p>Source: https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&lang=en&Item_Id=1317562.</p>
France	<p>Une transaction de commerce électronique est la vente ou l'achat de biens ou de services effectués sur des réseaux informatiques par des procédés spécialement conçus pour recevoir ou passer des commandes. Le paiement et la livraison des biens ou des services ne doivent pas nécessairement être effectués en ligne. Une transaction de commerce électronique exclut les commandes passées par téléphone, fax ou par courriels tapés manuellement.</p> <p><i>[An e-commerce transaction is the sale or purchase of goods or services effected over computer networks by methods specifically designed to receive or place orders. The payment and delivery of the goods or services does not necessarily have to be effected online. An e-commerce transaction excludes orders made by telephone, fax, or manually typed emails].</i></p>

	Source: https://www.insee.fr/en/metadonnees/source/operation/s2040
Hong Kong, China	<p>E-commerce sales is the sale of goods or services [to] customers, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-commerce transaction can be between enterprises, households, individuals, governments, and other public organisations. Orders made in webpages or through electronic data transmission are regarded as e-commerce transactions, but these made by manually typed email, telephone calls or facsimile are <u>not included</u>. The type of e-commerce transaction (e.g. Web e-commerce or electronic data transmission e-commerce) is defined by the method of making the order.</p> <p>Source: provided by Census and Statistics Department, Government of the Hong Kong Special Administrative Region.</p>
Korea (Rep.)	<p>E-commerce transaction refers to “a transaction in which goods or services are made through an electronic commerce system on a computer network.”</p> <p>At least one of bidding/contracting/ordering is done in the e-commerce system.</p> <p>Source: survey questionnaire available at https://www.narastat.kr/metasvc/index.do. Translated with Google Translate.</p>
Malaysia	<p>Includes :</p> <ol style="list-style-type: none"> (1) Via websites, specialised internet marketplaces, extranets, EDI over the internet, Internet-enabled mobile phones (2) Orders received on behalf of other organisations (3) Orders received by other organisations on behalf of your business <p>Exclude : Orders submitted via email</p> <p>Source: https://www.dosm.gov.my/v1/uploads/files/2_Censuses%26Surveys/Services/ICTeC/2020/Borang-ICTeC-2020.pdf</p>
Malta	<p>An e-commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-Commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations. E-Commerce comprises orders made in Web pages or apps, extranet or EDI and excludes orders made by telephone calls, facsimile, or manually typed e-mail. The type is defined by the method of making the order. Source: OECD, DSTI/ICCP/IIS(2009)5/FINAL</p> <p>Source: https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_C2/Labour_Market_Statistics/Documents/2021/ICT%20ENT%20Questionnaire%202021.xlsx</p>
Mexico	<p>Comercio electrónico. Compra-venta de bienes y servicios a través de internet entre negocios, hogares, individuos, gobierno y otras organizaciones públicas o privadas, independientemente de que los pagos y las entregas no sean en línea. Incluye: las órdenes recibidas o colocadas en el correo electrónico y en cualquier aplicación montada sobre la internet, como Intercambio Electrónico de Datos (EDI) sobre internet o teléfonos celulares habilitados para conexiones a internet. Excluye: las órdenes recibidas o colocadas de manera telefónica o por fax.</p>

	<p>Ventas vía internet. Se refiere a la recepción de pedidos por internet de productos o servicios en el periodo señalado y desde cualquier lugar, independientemente de que los pagos de los pedidos recibidos se hicieron en línea o no. Incluye: los pedidos recibidos a través de sitios web, mercados especializados de internet, extranets, intercambio electrónico de datos por internet, teléfonos móviles habilitados para internet y correo electrónico. También incluye: los recibidos por este medio en nombre de otras organizaciones y los pedidos recibidos por otras organizaciones en nombre de la empresa. Excluye: los pedidos que fueron cancelados y los que no se concretaron.</p> <p><i>[Electronic commerce. Purchase and sale of goods and services through the Internet between businesses, households, individuals, government and other organizations public or private, regardless of whether payments and deliveries are not online. Includes: orders received or placed by e-mail and in any application mounted over the internet, such as Electronic Data Interchange (EDI) over the internet or cell phones enabled for internet connections. Excludes: orders received or placed by telephone or by fax.]</i></p> <p><i>Sales via internet. Refers to the reception of online orders for products or services in the indicated period and from any place, regardless of whether the payments for the received orders were made online or not. Includes: orders received through websites, specialized online marketplaces, extranets, Internet electronic data interchange, internet-enabled mobile phones and e-mail. It also includes: those received by this means on behalf of other organizations and the orders received by other organizations in company name. Excludes: orders that were cancelled and those that did not materialise.]</i></p> <p>Source: https://inegi.org.mx/contenidos/programas/entic/2013/doc/cuestionario_entic_2013.pdf.</p>
Philippines	<p>An e-commerce transaction is the sale or purchase of goods or services conducted over computer networks by methods designed for the purpose of receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. (includes: orders made in web pages, extranet or EDI. Excludes: orders made by telephone calls, facsimile, or manually typed email).</p> <p>Source: https://psa.gov.ph/sites/default/files/2017%20SICT%20Publication_signed.pdf</p>
Spain	<p>En las ventas por comercio electrónico de bienes o servicios, el pedido se realiza a través de páginas web, aplicaciones o mensajes de tipo EDI mediante métodos diseñados específicamente para la recepción de pedidos. El pago se puede realizar tanto en línea como offline. Los pedidos realizados por correo electrónico escrito de forma manual NO se consideran comercio electrónico.</p> <p><i>[In electronic commerce sales of goods or services, the order is placed through web pages, applications or EDI-type messages using methods specifically designed for the reception of orders. Payment can be made both online and offline. Orders placed by manually typed email are NOT considered e-commerce.]</i></p> <p>Source: https://www.ine.es/metodologia/t09/eticce1_20.pdf.</p>
Singapore	<p>E-commerce revenue refers to the revenue earned from the sale of goods and services whereby your company receives orders or agrees on the price on terms of sale via online means. This includes transactions through your company's / third-party websites, mobile applications, extranet or Electronic Data Interchange such as GeBIZ. This excludes agreement through telephone calls, facsimile and emails.</p>

	<p>Payment and delivery may or may not be made online.</p> <p>Source: SingStat (https://www.biz-esurvey.singstat.gov.sg/IBSS/explanatoryNotes/ais/AIS21.pdf).</p>
Thailand	<p>Electronic Commerce (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., EDI19 and Mintel), regardless of the access channels. For example, users may choose to enter a website via mobile phone or television. However, e-commerce does not include purchase orders received by phone, fax, or from email interaction without an explicit purchase order.</p> <p>Source: https://www.eta.or.th/th/Useful-Resource/publications/Value-of-e-Commerce-Survey-in-Thailand-2019_EN.aspx (p.104).</p>
United Kingdom	<p>E-commerce is the sale or purchase of goods or services conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. The payment and the delivery of the goods or services do not have to be conducted online. E-commerce transactions exclude orders made by manually typed emails.</p> <p>Source: provided by the Office for National Statistics.</p>
United States – manufacturing	<p>E-shipments are online orders accepted for manufactured products from customers. These include shipments to other domestic plants of your own company for further manufacture, assembly, or fabrication. The price and terms of sale for these shipments are negotiated over an online system. Payment may or may not be made online.</p> <p>Include: Electronic Data Interchange (EDI); E-mail; Internet; Extranet; Other online systems.</p> <p>Source: https://www2.census.gov/programs-surveys/asm/technical-documentation/questionnaire/2019/questionnaires/2019_ma_10000_mu.pdf (p. 8).</p>
United States – retail / wholesale trade	<p>E-commerce is the sale of goods and services where the buyer places an order, or the price and terms of the sale are negotiated, over an Internet, mobile device (M-Commerce), extranet, EDI network, electronic mail, or other comparable online system. Payment may or may not be made online.</p> <p>Source: https://www2.census.gov/programs-surveys/arts/technical-documentation/questionnaires/2021/sa-44d-21.pdf (p. 3). https://www2.census.gov/programs-surveys/awts/technical-documentation/questionnaires/2021/sa-42a.pdf (p.3).</p>
United States – services	<p>“Revenues from electronic sources”. Questions in this section of the survey make clear that “electronic sources” comprise orders placed directly on the firm’s websites or mobile applications; orders placed on third-party websites or mobile applications; or orders entered “via any other electronic systems such as private networks, dedicated lines, etc.”. Responses may, therefore, include orders placed via automated phone systems or manually typed emails.</p> <p>Source: https://www2.census.gov/programs-surveys/sas/technical-documentation/questionnaires/2021/sa-22010.pdf (p. 4).</p>

Source : UNCTAD based on national sources.

Annex 2. Monetary concepts relevant to measuring the value of business e-commerce transactions in different economies.

Economy	Concept	Definition (if available)	Gross or net of tax	Other
Australia	“Income from sales of goods and services”	As stated on the questionnaire form, the information reported should comply with the Australian equivalents to International Financial Reporting Standards (AIFRS). The AIFRS state that Income encompasses both revenue and gains. Revenue is income that arises in the course of ordinary activities of an entity and is referred to by a variety of different names including sales, fees, interest, dividends and royalties. Revenue includes only the gross inflows of economic benefits received and receivable by the entity on its own account. Amounts collected on behalf of third parties such as sales taxes, goods and services taxes and value added taxes are not economic benefits which flow to the entity and do not result in increases in equity. Therefore, they are excluded from revenue. Similarly, in an agency relationship, the gross inflows of economic benefits include amounts collected on behalf of the principal and which do not result in increases in equity for the entity. The amounts collected on behalf of the principal are not revenue. Instead, revenue is the amount of commission. Source: https://www.aasb.gov.au/admin/file/content105/c9/AASB118_07-04_%20COMPapr07_07-07.pdf	Net of GST	Net of discounts given.
Austria	“Sales”	“Sales include the sum of the amounts invoiced in the company for ordinary business activities (excluding sales tax), which correspond to the sale or the transfer of use of products and goods or services rendered to third parties. All taxes and duties (except sales tax) and other expenses charged to the customer (e.g. transport) must be included. Sales deductions (e.g. cash discounts) are to be deducted.” Source: https://www.statistik.at/stddoku/subdokumente/b_ikt-einsatz_in_unternehmen_ab_2005_fragebogen_2021.pdf (translated)	Net of sales tax	Net of discounts.
Canada	“Gross sales”	“The grand total of all sale transactions reported in a period, without any deductions from the figure”. This “gross sales” figure would normally be reported by businesses excluding amounts collected for sales taxes. Source: https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&Item_Id=1317562&TET=1	Net of GST	
China	“Enterprise sales”	sales of goods and services [...] made by enterprises above designated size Source: information provided by National Bureau of Statistics, China.	Gross of VAT	
France	“Chiffre d’affaires (hors taxes)” [Turnover (excluding taxes)]	Turnover represents the amount of business (excluding taxes) done by a statistical unit (legal unit, enterprise) with third parties when exercising its normal and routine professional activity. It corresponds to the sum of sales of goods, manufactured products, service provisions and products from related activities. https://www.insee.fr/en/metadonnees/definition/c1703 Available in French: https://www.insee.fr/fr/metadonnees/definition/c1703	Net of VAT	Gross of discounts for early payment.
Hong Kong, China	“Business receipts”	“Business receipts refer to service receipts, receipts from sales of goods, commissions, rental, interest and other income of an establishment”.	HK does not have a VAT,	

		Source: https://www.censtatd.gov.hk/en/data/stat_report/product/B1080006/att/B10800062022QQ01B0100.pdf	GST, or sales tax.	
Indonesia	“Operating income”	“total operating income [is] the value obtained from the sale of goods/services and is different from the profit” Source: BPS Indonesia	Gross of sales taxes	
Korea (Rep.)	“Sales”	Source: survey questionnaire available at https://www.narastat.kr/metascv/index.do . Translated with Google Translate.	?	
Malaysia	“Total income”	“refers to operating revenue / turnover / sales and other revenue”	?	
Malta	“Value of turnover”	Source: https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_C2/Labour_Market_Statistics/Documents/2021/ICT%20ENT%20Questionnaire%202021.xlsx	Net of VAT	
Mexico	“Monto de las ventas” [Sales amount]	“Ingresos derivados de la actividad. Es el monto que obtuvo la empresa por todas aquellas actividades de producción de bienes y servicios durante el periodo de referencia. Incluye: el valor de los bienes y servicios transferidos a otras unidades económicas, valorados a precio de venta. Excluye: IVA, IEPS, etcétera; los ingresos financieros, subsidios, cuotas, aportaciones y venta de activos fijos.” [Income derived from the activity. It is the amount that the company obtained for all those activities of production of goods and services during the reference period. Includes: the value of goods and services transferred to other economic units, valued at sale price. Excludes: VAT, IEPS, etc.; financial income, subsidies, fees, contributions and sale of fixed assets] Source: survey questionnaire (https://inegi.org.mx/contenidos/programas/entic/2013/doc/cuestionario_entic_2013.pdf)	Net of VAT, IEPS (special tax on certain products)	Gross of discounts given for early payment.
Philippines	“Sales income”	Income or Revenue refers to cash received and receivables for goods/products and by-products sold and services rendered. Source: https://psa.gov.ph/content/2017-annual-survey-philippine-business-and-industry-asbpi-economy-wide-all-establishments	?	
Singapore	Revenue	“the amount received and receivable from the various business activities during 2021 [exclusive of GST]. The amount collected with respect to previous year’s receivables should be excluded.” Source: https://www.bizsurvey.singstat.gov.sg/IBSS/explanatoryNotes/ais/AIS21.pdf	Net of GST	
Spain	“Cifra de negocios” [Turnover]	“Includes the total amounts invoiced by the observation unit, during the reference period, for the sales of goods and services supplied to third parties, considering both those carried out directly by the observation unit itself, and those from temporary outsourcing. These sales of goods or services are accounted for in net terms, that is, including the charges to the client (transport, packages, etc.), though invoiced separately, but deducting the discount on sales for early payment, returns of sales or the value of returned packages, as well as taxes on sales. This includes taxes and fees on goods or services invoiced by the unit, but excludes the VAT paid by the client. From an administrative point of view, the General Accounting Plan (PGC) (RD 1514/2007, of 16 November) defines the Total net value of turnover, using the following accounting items: C700+C701+C702+C703+C704+C705-C706-C708-C709 with: C700. Sales of merchandise C701. Sales of finished products C702. Sales of semi-finished products	Net of taxes on sales (VAT)	Net of returns and discounts for early payment

		<p>C703. Sales of sub-products and waste C704. Sales of packages and packaging C705. Provision of services C706. Discount on sales for early payment C708. Returns of sales and similar transactions C709. "Taxes" on sales</p> <p>Therefore, turnover includes neither subsidies nor other operating income. It also excludes financial and extraordinary income, and other income that affects the results of the fiscal year.”</p> <p>Source : https://www.ine.es/DEFIne/en/concepto.htm?c=4797&op=30061&p=1&n=20 Available in Spanish: https://www.ine.es/DEFIne/es/concepto.htm?c=4797&op=30061&p=1&n=20</p>		
Thailand	“Total sales of products / services (including VAT)”	Source: https://www.eta.or.th/th/Useful-Resource/publications/Value-of-e-Commerce-Survey-in-Thailand-2019_EN.aspx	Gross of VAT.	
United Kingdom	“Turnover”	<p>Defined in the Companies Act 2006: “Turnover, in relation to a company, means the amounts derived from the provision of goods and services after deduction of – trade discounts, value added tax, and any other taxes based on the amounts so derived”.</p> <p>Source: https://www.legislation.gov.uk/ukpga/2006/46/section/474/2009-01-01#:~:text=%E2%80%9Cturnover%E2%80%9D%2C%20in%20relation%20to,(b)</p>	Net of VAT (and any other sales taxes).	
United States: Manufacturing	“Sales, shipments, receipts, or revenue”	<p>Include: All products physically shipped from this establishment during 2019. Exclude: Freight charges, Excise taxes</p> <p>Source: https://www2.census.gov/programs-surveys/asm/technical-documentation/questionnaire/2019/questionnaires/2019_ma_1000_0_mu.pdf</p>	Net of excise taxes	
United States: Services	“Sales, receipts, or revenue”	<p>Respondents are asked to “Report gross billings”, which refers to “the full amount billed on an invoice prior to applying any discounts”.</p> <p>For more precisions see: https://www2.census.gov/programs-surveys/sas/technical-documentation/questionnaires/2021/sa-51790.pdf</p>	Net of sales taxes	
United States: Retail	“Sales, receipts, or revenue”	<p>Credit and cash net sales of merchandise</p> <p>For more precisions see: https://www2.census.gov/programs-surveys/arts/technical-documentation/questionnaires/2021/sa-44t-21.pdf</p>	Net of sales taxes	Net of rebates and discounts granted to customers
United States: Wholesale	“Sales, receipts, or revenue”	<p>Include Sales of products that are shipped on this firm's orders directly to customers. Retail sales made by wholesale establishments covered by this survey. Gross value of sales made on a commission basis (not your actual commissions). Receipts from freight, installations, rentals, maintenance, repairs, alterations, storage, and other such services. Excise taxes (such as those on gasoline, liquor, and tobacco) that are levied on the manufacturer and included in the cost of products purchased by this firm.</p> <p>Source: https://www.census.gov/programs-surveys/awts/technical-documentation/questionnaires.html</p>	Gross of excise taxes	

Source : UNCTAD based on national sources

2.7 Please break down the revenue of all sales or orders received through your company's websites, apps or online marketplaces in 2020 by origin of customers:

a. Austria	<input type="text"/>
b. Other EU member countries	<input type="text"/>
c. Countries outside the EU (worldwide)	<input type="text"/>
In total	<input type="text" value="100%"/>

2.10 What is your estimate of the value of all sales or orders received by your company made via EDI-based systems or other forms of electronic data transmission (e.g. XML, EDIFACT) in 2020?

a. In 1.000 Euro	<input type="text"/>
or	
b. in % of sales 2020	<input type="text"/>

Sales include the sum of the amounts invoiced in the company for ordinary business activities (excluding sales tax), which correspond to the sale or the transfer of use of products and goods or services rendered to third parties. All taxes and duties (except sales tax) and other expenses charged to the customer (e.g. transport) must be included. Sales deductions (e.g. cash discounts) are to be deducted.

Source: https://www.statistik.at/stddoku/subdokumente/b_ikt-einsatz_in_unternehmen_ab_2005_fragebogen_2021.pdf translated from German to English using Google Translate.

Canada

21 What were this business's total gross sales conducted over the Internet in 2021?

If precise figures are not available or the year is not yet complete, please provide your best estimate in Canadian dollars.

- : Rounded to the nearest CAN\$
- : OR
- 1: Don't know

22 In 2021, what percentage of the value of this business's gross sales was made over the Internet?

If precise figures are not available or the year is not yet complete, please provide your best estimate.

- : Percentage
- : OR
- 1: Don't know

26 What percentage of this business's gross sales conducted over the Internet were obtained from each of these regions in 2021?

If precise figures are not available or the year is not yet complete, please provide your best estimate.

Enter "0" if this business did not make any sales to a particular region.

- a: Canada
- b: United States
- c: Mexico
- d: Other Latin America and the Caribbean
- e: China
- f: Other Asia
- g: The European Union
- h: The United Kingdom
- i: Other regions

Source:

https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&lang=en&Item_Id=1317562

France

→ 2. En 2021, quel a été le montant consolidé de vos ventes web * ?
(ventes web réalisées par des unités implantées en France, y compris volume d'affaires sur les places de marché (marketplaces), hors taxes, en milliers d'euros)

k€

→ Si vous pouvez fournir ce nombre, passez à la question 4 de ce module.

→ 3. Si vous ne pouvez pas indiquer ce montant, veuillez en donner une estimation en pourcentage du chiffre d'affaires total consolidé hors taxes de votre entreprise/groupe (indiqué aux questions 4 ou 5 des données de cadrage) :

%

→ 12. En 2021, quel a été le montant consolidé de vos ventes de type EDI* ?
(ventes EDI réalisées par des unités implantées en France, hors taxes, en milliers d'euros)

k€

→ Si vous pouvez fournir ce nombre, passez au module suivant.

→ 13. Si vous ne pouvez pas indiquer ce montant, veuillez en donner une estimation en pourcentage du chiffre d'affaires total consolidé hors taxes de votre entreprise/groupe (indiqué aux questions 4 ou 5 des données de cadrage) :

%

→ 4. Selon nos informations, le dernier chiffre d'affaires consolidé* hors taxes de votre entreprise/groupe est le suivant (en milliers d'euros) : xxx k€. Ce chiffre d'affaires était-il au même niveau en 2021 ?

(à plus ou moins 5 %)

- Oui
 Non

Si OUI, passez à la question 6 de ce module.

→ 5. Veuillez indiquer le montant du chiffre d'affaires consolidé hors taxes de votre entreprise/groupe en 2021 (en milliers d'euros) :

k€

→ 10. En 2020, quelle était la répartition du montant de vos ventes web par origine de la clientèle ?

Se référer au montant ou à la part des ventes web indiqués aux questions III.2 ou III.3.

(le total doit être égal à 100%)

	Part du montant des ventes web réalisées	
France		%
Autres pays de l'Union européenne		%
Hors Union européenne		%
Total	100 %	

Source : https://www.insee.fr/fr/metadonnees/source/fichier/TIC2021_questionnaire.pdf

Hong Kong, China

D6. Please provide the value of e-commerce sales in 2020:

E-commerce sales include transactions made on behalf of other businesses (e.g. by provision of e-commerce platform for use by other businesses), and transactions made by other businesses on behalf of your firm (e.g. sales through e-commerce platforms of other businesses). In the case where your firm provides an e-commerce platform for use by other organisations, the value of e-commerce sales refers to the commissions and service charges only. Only the value of e-commerce sales (excluding commissions and service charges) should be reported if the e-commerce sales are made by other organisations on behalf of your firm.
 For financial services, include commissions, premiums and fees earned in respect of online services.

(a) Of the value in total business receipts (D2), value of e-commerce sales was: HK\$

(b) Proportion of e-commerce sales (D6(a)) to total business receipts (D2) was: %

Source : questionnaire extract provided by Census and Statistics Department

Indonesia

Berapa nilai seluruh pendapatan dari hasil penjualan barang/jasa selama tahun 2018?	Dari seluruh pendapatan usaha tahun 2018, berapa persen pendapatan yang berasal dari penjualan melalui internet? (persen)
Isikan dalam rupiah	

What is the total value of income from the sale of goods/services during 2018?

Fill in rupiah

Of all operating revenues in 2018, what percentage of revenue comes from sales via the internet? (percent)

Source: <https://www.bps.go.id/publication/2019/12/18/fd1e96b05342e479a83917c6/statistik-e-commerce-2019.html>, translated with Google Translate.

Korea (Rep.)

II. Sales through own e-commerce sales system (including the use of overseas sales systems)					
Sales system name (url)	Transaction type	Sales amount	Proportion of sales by sales target (%)		
	Open sales ¹⁾		Domestic	Abroad	Total
	Closed sales ²⁾				100
	Open sales				100
	Closed sales				100
Total e-commerce sales					100

- 1) Open sales: bidding method or sales to a large number of unspecified companies
- 2) Closed sales: Sales using a closed network with fixed customers (targets for fixed delivery of materials and products)

IV. Transaction amount using an e-commerce system owned by other companies in Korea		
Field	System name (url)	Transaction amount
Sales (domestic)		
Purchase (Domestic)		

Source: replicated from survey questionnaire available at <https://www.narastat.kr/metasvc/index.do>. Translated with Google Translate.

Malaysia

4.2 Jumlah pendapatan (Merujuk kepada jumlah hasil kendalian / perolehan / jualan dan hasil lain)
Total income (Refers to operating revenue / turnover / sales and other revenue)

RM 080089

6.5 Sila nyatakan jumlah pendapatan yang diterima daripada jualan barangan atau perkhidmatan menggunakan e-dagang
Please indicate the total income that receive orders from sales of goods or services via e-commerce

RM 3100

44

Jika tuan tidak dapat membekalkan nilai,
If you can't provide the value,

Sila nyatakan anggaran peratusan jumlah pendapatan yang diterima daripada jualan barangan atau perkhidmatan menggunakan e-dagang
Please indicate an estimate of the percentage of total income that receive orders from sales of goods or services via e-commerce

45 (%)

Nota / Notes:
 Bagi pesanan internet yang diterima bagi pihak organisasi lain, sila lapor hanya yuran atau komisen yang diterima
For internet orders received on behalf of other organisations, include only fees or commissions earned

6.8 Sila nyatakan peratusan pendapatan e-dagang mengikut jenis pasaran
Please indicate the percentage of e-commerce income by types of market

(a) Tempatan
Domestic

54 (%)

(b) Antarabangsa
International

55 (%)

JUMLAH TOTAL

3100

(%)

(%)

(%)

1 0 0 (%)

Nota / Notes:
 Jika peratusan pendapatan antarabangsa e-dagang diisi, sila ke Soalan 6.9
If the percentage of e-commerce international income is filled, please go to Question 6.9

Source:

https://www.dosm.gov.my/v1/uploads/files/2_Censuses%26Surveys/Services/ICTeC/2020/Borang-ICTEC-2020.pdf

Mexico

48. Indique el número de transacciones y el monto aproximado de ventas de mercancías ó prestación de servicios vía internet durante el año 2012.

48.1 Número de transacciones de ventas vía internet

Número de transacciones

48.2 Monto de las ventas vía internet.....

Miles de pesos

50. Del monto de las ventas vía internet reportado en el punto 2 de la pregunta 48, indique el porcentaje que representó el mercado de destino de los productos vendidos durante el año 2012.

	Porcentaje
50.1 Nacional	<input type="text"/>
50.2 Extranjero	<input type="text"/>
50.0 TOTAL	100%

Source : https://inegi.org.mx/contenidos/programas/entic/2013/doc/cuestionario_entic_2013.pdf

Malta

B2	Please state the value of the turnover resulting from orders received that were placed via a website or apps (in monetary terms, excluding VAT) in 2020.	
	If you can't provide this value, please indicate an estimate of the percentage of the total turnover resulting from orders received that were placed via a website or apps in 2020.	%
B9	Please state the value of the turnover resulting from orders received that were placed via EDI-type messages (in monetary terms (in euros), excluding VAT) in 2020.	
	If you can't provide this value, please indicate an estimate of the percentage of the total turnover resulting from orders received that were placed via a EDI-type messages in 2020.	%
X3	Total turnover (in monetary terms, excluding VAT), for 2020	

Source : https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_C2/Labour_Market_Statistics/Pages/ICT-Usage-by-Enterprises.aspx

Philippines

C. What percent of total revenue was generated from e-commerce via Internet by this establishment in 2017?	_____ %	03
E. What percent of total revenue from e-commerce via Internet in 2017 was generated by this establishment from:		
Indicate percent share.	Percent Share	LN NO
1. Customer within the Philippines	_____ %	10
2. Customer outside the Philippines	_____ %	11
C. What percent of total revenue of this establishment was generated from e-commerce via network channels other than Internet in 2017?	_____ %	03

Source: https://psa.gov.ph/sites/default/files/2017%20SICT%20Publication_signed.pdf

Singapore

E-Commerce (Exclusive Of GST)

E-commerce revenue refers to the revenue earned from the sale of goods and services whereby your company receives orders or agrees on the price on terms of sale via online means.

This includes transactions through your company's / third-party websites, mobile applications, extranet or Electronic Data Interchange such as GeBIZ.

This excludes agreement through telephone calls, facsimile and emails.

Payment and delivery may or may not be made online.

Total E-commerce Revenue forms part of the "TOTAL RECEIPTS" reported in SECTION 3 : GROSS INCOME/RECEIPTS. If actual figures are not available, please provide your best estimate.

SGD

Total E-Commerce Revenue (if applicable)

This Field is a required field.

Source : survey extract provided by SingStat

Spain

A.2 Cifra de negocio en 2020

Consigne el total de ventas comerciales de bienes y servicios, excluidos impuestos. Incluye las siguientes partidas del actual Plan General de Contabilidad (700+701+702+703+704+705+706-708-709).

Importe (€ sin decimales)

Cifra de negocio (excluido el IVA) _____

K.1.2 Durante 2020, ¿qué porcentaje aproximado de la cifra de negocios fue generado por las **ventas web de bienes o servicios?** (excluido el IVA)

Por favor, ver definición de **ventas web de bienes o servicios** más arriba

Porcentaje (con 1 decimal)

, %

K.1.7 Desglose, en porcentaje estimado, el importe de las **ventas web** en 2020 por área geográfica (excluido el IVA)

Porcentaje (sin decimal)

a) A España _____ %
b) A otros países de la UE¹ _____ %
c) Al resto de países _____ %
1 0 0 %

K.1.10 Indique, en **porcentaje estimado**, el importe total de las ventas correspondientes a pedidos/reservas de bienes o servicios realizados mediante **mensajes tipo EDI o similar** en 2020 (excluido el IVA) sobre el importe total de las ventas efectuadas

Porcentaje (con 1 decimal)

, %

K.1.12 Desglose, en porcentaje estimado, el importe de las ventas realizadas mediante mensajes tipo EDI o similar en 2020 por área geográfica (excluido el IVA)

Porcentaje (sin decimal)

a) A España _____ %
b) A otros países de la UE¹ _____ %
c) Al resto de países _____ %
1 0 0 %

1. Otros países de la UE: Alemania, Austria, Bélgica, Bulgaria, Chipre, Croacia, Dinamarca, Eslovaquia, Eslovenia, Estonia, Finlandia, Francia, Grecia, Hungría, Irlanda, Italia, Letonia, Lituania, Luxemburgo, Malta, Países Bajos, Polonia, Portugal, República Checa, Rumania, Suecia.

Source: https://www.ine.es/metodologia/t09/eticce1_20.pdf

Thailand

Part 2: Sales Value (Total Sales)

4) Total sales of goods and services in 2018 and sales forecast for 2019-2020

4.1) In 2018, what was the total sales of products/services (including VAT) made via both the internet and off-line channels?

THB

4.2) In 2018, what was the total sales of products/services (including VAT) made via the internet channels²⁰ only?

THB

4.3) In 2019, what was the total sales of products/services (including VAT) made via both the internet channels and off-line channels?

THB

4.4) In 2019, what was the total sales of products/services (including VAT) made via the internet channels only?

THB

4.5) Considering the forecast for 2020, how much will the total sales of products/services (including VAT) made via both the internet channels and off-line channels be?

THB

4.6) Considering the forecast for 2020, what will the total sales of products/services (including VAT) made via the internet channel only be?

THB

4.8) In 2018, what were the domestic and international percentage shares of the value of product/service sales made via the internet?

Domestic _____% International _____%

Source: https://www.eta.or.th/th/Useful-Resource/publications/Value-of-e-Commerce-Survey-in-Thailand-2019_EN.aspx

United Kingdom

During 2021, what was your business's turnover from e-commerce sales?

During 2021, what was your business's turnover from e-commerce sales to customers located outside the UK?

How much of the value of the turnover from e-commerce sales to customers located outside the UK came from the following areas?

- European Union countries
- Other European countries (excluding UK countries)
- Africa
- Australasia and Oceania
- Asia
- The Americas and the Caribbean

Responses requested in £.

Source:

<https://www.ons.gov.uk/surveys/informationforbusinesses/businesssurveys/2021digitaleconomysurveysurveyquestions#e-commerce-sales>

United States

Manufacturing

ITEM 5: SALES, SHIPMENTS, RECEIPTS, OR REVENUE

A. What was the total value of products shipped and other receipts for this establishment?
(Report detail in **Item 22.**)

Include:

- All products physically shipped from this establishment during 2019

Exclude:

- Freight charges
- Excise taxes

Check if None

2019
\$,000.00

2018
\$,000.00

C. What percent of the \$,000.00 reported in **Item 5**, line A was for goods that were ordered or whose movement was controlled or coordinated over electronic networks?
(Report whole percent.)

E-shipments are online orders accepted for manufactured products from customers. These include shipments to other domestic plants of your own company for further manufacture, assembly, or fabrication. The price and terms of sale for these shipments are negotiated over an online system. Payment may or may not be made online.

Include:

- Electronic Data Interchange (EDI)
- E-mail
- Internet
- Extranet
- Other online systems

%

%

Source: https://www2.census.gov/programs-surveys/asm/technical-documentation/questionnaire/2019/questionnaires/2019_ma_10000_mu.pdf

6 SALES, RECEIPTS, OR REVENUE

What were the revenues for this firm in 2021?

Include:

- Report gross billings, **except** where noted elsewhere on the form.
- Dues and assessments from members and affiliates.
- Amounts received for work subcontracted to others.
- For locations that were sold or acquired during a year, only report for the periods that this firm operated the locations.
- Revenue from services performed by domestic locations of foreign parent firms, subsidiaries, branches, etc.
- Revenues from electronic sources.

Exclude:

- Transfers made within the company.
- Taxes collected directly from customers or clients and paid directly to a local, state, or federal tax agency.
- Rents from and revenue of separately operated departments, concessions, etc., which are leased to others.
- Commissions from vending machine operators.
- Revenue of foreign subsidiaries (those located outside the U.S., i.e., outside the 50 states or the District of Columbia).

	Mark "X" if None	2021			
		\$ Bil.	Mil.	Thou.	Dol.
1. Publishing and broadcasting of content on the Internet- Publishing and broadcasting audio, video, text and graphics content on the Internet. Include Internet content paid for by subscriptions, pay-per-view, membership fees, fees for downloads, and fees for other forms for licensed access 6271	<input type="checkbox"/>				
2. Online advertising space - Provision of space for electronic advertising distributed over the Internet (e.g., banner ads, buttons, text links, interstitials, rich media ads, streaming audio and video ads) 6014	<input type="checkbox"/>				
3. Licensing of rights to use intellectual property - Granting permission to others to use (e.g., broadcast, publish, reproduce, record, modify, incorporate, distribute) intellectual property (e.g., software, books, films, plays, music, graphics, photography, inventions, processes, trademarks) for an agreed period of time. Exclude the outright sale of rights in perpetuity; report these in line 4 6272	<input type="checkbox"/>				
4. All other operating revenue - Revenue not reported in lines 1 through 3. If this item is greater than 20% of the total operating revenue, specify the primary source of the revenue below ∇					
	<input type="checkbox"/>				
5. TOTAL OPERATING REVENUE Sum of lines 1 through 4 1800					

8 REVENUES FROM ELECTRONIC SOURCES

A. Did this firm have any revenues from customers entering orders directly on the firm's websites or mobile applications in 2021?

0040 Yes

No

B. Did this firm have any revenues from customers entering orders directly on third-party websites or mobile applications in 2021?

0041 Yes

No

C. Did this firm have any revenues from customers entering orders via any other electronic systems (such as private networks, dedicated lines, etc.) in 2021?

0042 Yes

No

D. Of the total 2021 revenues reported in 6, what was the dollar amount (or percentage) that was from the revenues identified in A-C above? Please provide an estimate if exact figures are not available. 2500

	2021				OR 2501	2021	
	\$ Bil.	Mil.	Thou.	Dol.		Percent	%

Source: <https://www2.census.gov/programs-surveys/sas/technical-documentation/questionnaires/2021/sa-51913.pdf>

Retail trade

5 E-COMMERCE

E-commerce is the sale of goods and services where the buyer places an order, or the price and terms of the sale are negotiated, over an Internet, mobile device (M-Commerce), extranet, EDI network, electronic mail, or other comparable online system. Payment may or may not be made online.

A. Did this firm have any e-commerce sales in 2021?

Yes

No - Go to **6**

B. What were the total e-commerce sales in 2021?

2021			
\$ Bil.	Mil.	Thou.	Dol.

Source: <https://www2.census.gov/programs-surveys/arts/technical-documentation/questionnaires/2021/sa-44t-21.pdf>

Wholesale trade

5 E-COMMERCE, INCLUDING EDI

E-commerce is the sale of goods and services where the buyer places an order, or the price and terms of the sale are negotiated, over an Electronic Data Interchange (EDI), the Internet, mobile device (M-Commerce), or any other online system. Payment may or may not be made online.

A. Did this firm have any e-commerce sales in 2021?

Yes

No - Go to **8** on the next page

B. What were the total e-commerce sales in 2021?
*This amount should equal the sum of **6B1** and **6B2** shown below.*

1. What were the EDI network sales in 2021, if any?

- *EDI is the exchange of documents in standardized electronic form between organizations in an automated manner directly from a computer application in one organization to an application in another.*

2. What were the online system sales in 2021, if any?

- *Online systems include the Internet, mobile device (M-commerce), extranets, e-mail, and instant messaging.*

Mark "X" if None	2021			
	\$ Bil.	Mil.	Thou.	Dol.

Source: <https://www2.census.gov/programs-surveys/awts/technical-documentation/questionnaires/2021/sa-42a.pdf>

Annex 4. UK Digital Economy Survey 2021 – full e-commerce sales module

Quantities requested in £.

During 2021, did this business make any e-commerce sales?

During 2021, what was your business's turnover from e-commerce sales?

Of the value of turnover from e-commerce sales, what was the value of each of the following?

- Turnover from e-commerce sales via business's own website, app, or EDI
- Turnover from e-commerce sales via a digital intermediary platform

During 2021, did your business make any e-commerce sales to customers located in the UK?

During 2021, what was your business's turnover from e-commerce sales to customers located in the UK?

During 2021, to which customers located in the UK did your business make e-commerce sales?

- private consumers (business to consumer [B2C])
- public authorities (business to government [B2G])
- other businesses (business to business [B2B])

How much of the value of the turnover from e-commerce sales to customers located in the UK came from the following?

- Turnover from e-commerce sales to private consumers (business to consumer [B2C])
- Turnover from e-commerce sales to public authorities (business to government [B2G])
- Turnover from e-commerce sales to other businesses (business to business [B2B])

During 2021, what type of e-commerce sales did your business make to customers located in the UK?

- Sales of goods
- Sales of digitally delivered services
- Sales of non-digitally delivered services

How much of the value of the turnover from e-commerce sales to customers located in the UK came from the following?

- Turnover from e-commerce sales of goods
- Turnover from e-commerce sales of digitally delivered services
- Turnover from e-commerce sales of non-digitally delivered services

During 2021, what platforms did your business use to make e-commerce sales to customers located in the UK?

- Sales via this business' own website or app
- Sales via this business' own social media
- Sales via an online marketplace
- Sales via EDI
- Other

How much of the value of the turnover from e-commerce sales to customers located in the UK came from each platform?

- Turnover from e-commerce sales via this business' own website or app
- Turnover from e-commerce sales via this business' own social media
- Turnover from e-commerce sales via an online marketplace
- Turnover from e-commerce sales via EDI
- Turnover from e-commerce sales via other platforms

During 2021, which areas did your business make e-commerce sales to?

- European Union countries
- Other European countries (excluding UK countries)
- Africa
- Australasia and Oceania
- Asia

- The Americas and the Caribbean
- Did not make e-commerce sales to customers outside the UK

During 2021, what was your business's turnover from e-commerce sales to customers located outside the UK?

How much of the value of the turnover from e-commerce sales to customers located outside the UK came from the following areas?

- European Union countries
- Other European countries (excluding UK countries)
- Africa
- Australasia and Oceania
- Asia
- The Americas and the Caribbean

During 2021, to which customers located outside the UK did your business make e-commerce sales?

- private consumers (business to consumer [B2C])
- public authorities (business to government [B2G])
- other businesses (business to business [B2B])

How much of the value of the turnover from e-commerce sales to customers located outside the UK came from the following?

- Turnover from e-commerce sales to private consumers (business to consumer [B2C])
- Turnover from e-commerce sales to public authorities (business to government [B2G])
- Turnover from e-commerce sales to other businesses (business to business [B2B])

During 2021, what type of e-commerce sales did your business make to customers located outside the UK?

- Sales of goods

- Sales of digitally delivered services
- Sales of non-digitally delivered services

How much of the value of turnover from e-commerce sales to customers located outside the UK came from the following?

- Turnover from e-commerce sales of goods
- Turnover from e-commerce sales of digitally delivered services
- Turnover from e-commerce sales of non-digitally delivered services

During 2021, what platforms did your business use to make e-commerce sales to customers located outside the UK?

- Sales via this business' own website or 'app'
- Sales via this business's own social media
- Sales via an online marketplace
- Sales via EDI
- Other

How much of the value of turnover from e-commerce sales to customers located outside the UK came from each platform?

- Turnover from e-commerce sales via your business's own website or app
- Turnover from e-commerce sales via your business's own social media
- Turnover from e-commerce sales via an online marketplace
- Turnover from e-commerce sales via EDI
- Turnover from e-commerce sales via other platforms

During 2021, did your business experience any of the following difficulties when selling to customers located in European Union countries via a website or app?

- Adapting product labelling for sales
- Difficulties resolving complaints and disputes

- Language barriers when communicating with customers
- High costs of delivering or returning products
- Restrictions from business partners to sell to certain EU countries
- We did not have any of these difficulties

During 2021, did your business experience any of the following difficulties when selling via an online marketplace?

- Changes to your account or product listings by the platform
- Fees and commission charged by the platform
- Pricing of products on the platform
- Communication difficulties
- Difficulties with information exchange
- The sale of similar products by the platform itself
- Issues relating to the terms and conditions between the platform and the business
- The processing of payments and refunds
- We did not have any of these difficulties

Source:

<https://www.ons.gov.uk/surveys/informationforbusinesses/businesssurveys/2021digitaleconomysurveysurveyquestions#e-commerce-sales>

References

- Australian Bureau of Statistics 2018. *8167.0 - Selected Characteristics of Australian Business, 2016-17, explanatory notes*. Available at :
<https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8167.0Explanatory%20Notes12016-17?OpenDocument>
- Census and Statistics Department 2022. *Report on the Survey on Information Technology Usage and Penetration in the Business Sector for 2021*. Available at :
https://www.censtatd.gov.hk/en/data/stat_report/product/B1110005/att/B11100052021BE21B100.pdf
- Department of Statistics, Malaysia 2020. *Survey on usage of ICT and e-commerce by establishment 2020*. Available at :
https://www.dosm.gov.my/v1/uploads/files/2_Censuses%26Surveys/Services/ICTeC/2020/Borang-ICTeC-2020.pdf
- Electronic Transactions Development Agency 2019. *Value of e-commerce survey in Thailand 2019*. Available at : https://www.etda.or.th/th/Useful-Resource/publications/Value-of-e-Commerce-Survey-in-Thailand-2019_EN.aspx
- Instituto Nacional de Estadística 2022. *Business Turnover Index (BTI)*. Available at :
https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736176958&menu=ultiDatos&idp=1254735576550
- Merriam-Webster 2022. *Social Media*. Available at : <https://www.merriam-webster.com/dictionary/social%20media>
- Ministry of Economy, Trade, and Industry (METI) 2021. *Market research on e-commerce*. Available at :
<https://www.meti.go.jp/press/2022/08/20220812005/20220812005-h.pdf>
- OECD 2011. *Guide to Measuring the Information Society*. Paris: OECD Publishing. Available at :
<http://www.oecd.org/sti/measuring-infoeconomy/guide>
- OECD 2021. *Trade in Employment*. Available at :
https://stats.oecd.org/Index.aspx?DataSetCode=TIM_2021
- Office for National Statistics 2022. *2021 Digital Economy Survey: survey questions*. Available at :
<https://www.ons.gov.uk/surveys/informationforbusinesses/businesssurveys/2021digitaleconomysurveyquestions#e-commerce-sales>
- Statistics Canada 2021. *Survey of Digital Technology and Internet Use - 2021*. Available at :
https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&Item_Id=1317562&TET=0
- Statistics Canada 2022. *Digital technology and Internet use - 2021*. Available at :
<https://www150.statcan.gc.ca/n1/daily-quotidien/220913/dq220913b-eng.htm>
- Statistics Korea 2014. *E-commerce and Cyber Shopping Survey in 2013 and in the Fourth Quarter 2013*. Available at :
<https://kostat.go.kr/portal/eng/pressReleases/1/index.board?bmode=read&aSeq=313310>

- UNCTAD 2013. *The impact of trade on employment and poverty reduction*. Available at :
https://unctad.org/system/files/official-document/cid29_en.pdf.
- UNCTAD 2017. The growing role of e-commerce. In *Information economy report 2017: digitalisation, trade, and development*. Available at : https://unctad.org/system/files/official-document/ier2017_en.pdf
- UNCTAD 2019. *Review of progress and pending challenges in measuring domestic and cross-border e-commerce 2016-2019*. Available at : https://unctad.org/system/files/official-document/tdb_edc_WorkingGroup2019_BN01_en.pdf
- UNCTAD 2020. *Estimates of global e-commerce 2018*. Available at :
https://unctad.org/system/files/official-document/tn_unctad_ict4d15_en.pdf
- UNCTAD. (2021a). *Manual for the production of statistics on e-commerce and the digital economy 2020*. Retrieved from <https://unctad.org/webflyer/manual-production-statistics-digital-economy-2020>
- UNCTAD 2021b. *Estimates of global e-commerce 2019 and preliminary assessment of covid-19 impact on online retail 2020*. Available at : https://unctad.org/system/files/official-document/tn_unctad_ict4d18_en.pdf
- UNCTAD 2021c. *Global E-Commerce Jumps to \$26.7 Trillion, Covid-19 Boosts Online Retail Sales*. Available at : <https://unctad.org/press-material/global-e-commerce-jumps-267-trillion-covid-19-boosts-online-retail-sales>
- UNCTAD 2021d. *Impacts of the COVID-19 pandemic on trade in the digital economy*. Available at :
https://unctad.org/system/files/official-document/tn_unctad_ict4d19_en.pdf