OECD Handbook on Digital Supply and Use Tables

18ème colloque de l'Association de Comptabilité Nationale
20-21 June 2024

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Contents

- Introduction
- The Digital SUT framework
- Country examples
- Final considerations

Introduction

Do existing frameworks capture digitalization?

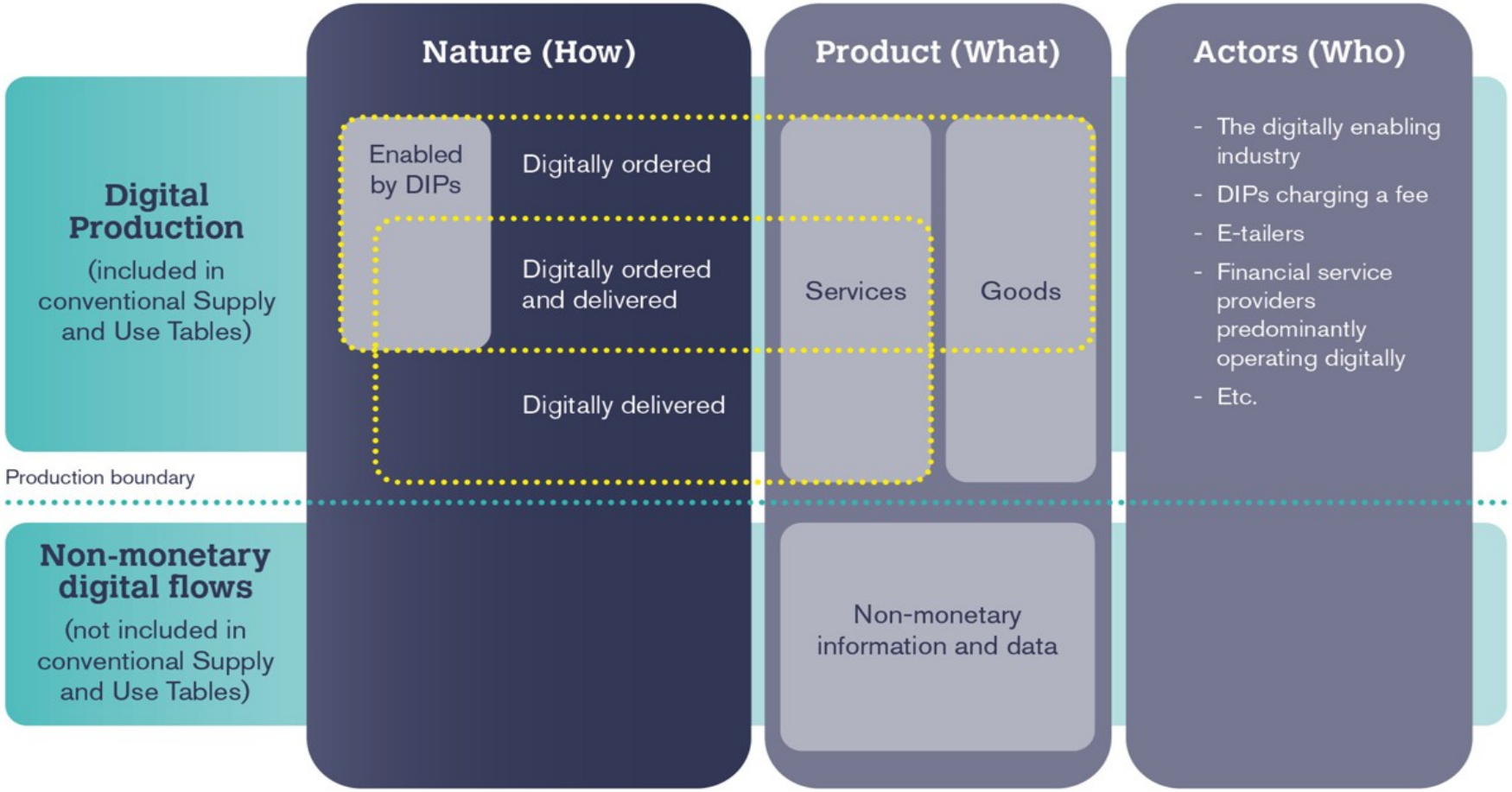
- Digitalisation: transformation of economic activity and daily life through the application of digital technology
- It has fundamentally altered the production and consumption of goods and services worldwide over the past two decades
- Digital transformation is largely hidden in core economic accounts
- The OECD Informal Advisory Group on Measuring GDP in a Digitalised Economy developed Digital SUTs to make digitalization more visible
- The OECD Handbook on Compiling Digital SUTs is now published
- It is consistent with the Handbook on Measuring Digital Trade produced by IMF, OECD, UNCTAD and WTO
- Several countries have produced estimates consistent with framework

Approach towards measuring digital economy

- In the modern economy, almost every transaction contains an element of digitalisation in its production
- No single definition of the Digital Economy within the Digital SUT framework
- The Digital Economy is considered as a multidimensional phenomenon
- The framework allow to generate a range of outputs providing information on multiple perspectives, supporting various policy needs
- Flexibility: NSO's can compile the components for which they have data for.

The Digital SUTs Framework

Set-up of the framework



1. DIPs = Digital Intermediation Platforms.
2. There are currently seven new digital industries; the last column shows examples. The full list are: The digitally enabling industry, DIPs charging a fee, Data- and advertising-driven digital platforms, Producers dependent on DIPs, E-tailers, Financial service providers predominantly operating digitally, and Other producers only operating digitally .

Source: IMF, OECD, UNCTAD, WTO (2023) adapted.

Dimension 1:
Nature of transaction

Dimension 1: Nature of transactions ('how')

Transactions are split into the following categories:

- Digitally ordered: "*The sale or purchase of a good or service, conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders*" (excludes orders placed by phone, fax, or email)
  - Digitally ordered directly from the counterparty
  - Digitally ordered via a digital intermediary platform
    - Digitally ordered via a resident digital intermediary platform
    - Digitally ordered via a non-resident digital intermediary platform
  - Not digitally ordered
- Digitally delivered: "*Transactions that are delivered remotely over computer networks*"
  - Of which, digitally delivered (please note that several countries focus on 'digitally deliverable' because of the practical complexities in measuring 'digitally delivered')

Dimension 2: Products

Dimension 2: Products ('what')

In conventional SUTs digital products are hidden in many product rows that include both digital and non-digital products

- In Digital SUTs, digital products are aggregated and shown separately:
  - Information and Communication Technology (ICT) goods
  - Digital services
- In addition, two products of considerable policy interest are shown separately:
  - Cloud computing services (CCS)
  - Digital intermediation services (DIS)

They also include product rows to incorporate products currently outside of the SNA production boundary:

1. Data (beyond 2008 SNA, but included in 2025 SNA)
2. Digital services (beyond 2008 SNA) provided by enterprises/communities

Dimension 3: Industries

Dimension 3: Industries ('who')

Additional columns to represent the new digital industries:

1. The digitally enabling industry, i.e., units that produce goods and services that enable the digital transformation, such as IT equipment and software (e.g., Samsung)
2. DIPs charging a fee, i.e., platforms that operate online interfaces that facilitate, for a fee, the direct interaction between multiple buyers and sellers, without them taking economic ownership of the goods/services that are sold/intermediated (e.g., Amazon; Uber, Lyft)
3. Data- and advertising-driven digital platforms, i.e., platforms that generate revenue via other means, e.g., via selling advertising space or analysis based on the data they produce from the interactions on the platform (e.g., Google, Instagram)
4. Producers dependent on DIPs, i.e., units that sell most of their goods or services via intermediation platforms
5. E-tailers, i.e., units for which the majority of orders, in terms of value, are received digitally
6. Financial service providers predominantly operating digitally
7. Other producers only operating digitally (e.g., Netflix, YouTube)

Summary:
High priority indicators

Digital SUT framework - High Priority Indicators

- It may be too demanding to compile full-fledged Digital SUTs
- For that reason, the IAG formulated high priority indicators that compilers may focus on:
  1. Expenditures split by nature of the transaction, includes estimates of digital trade
  2. Output and/or intermediate consumption of Digital Intermediation Services (DIS), Cloud Computing services (CCS) and total ICT goods and digital services
  3. Digital industries' output, gross value added (GVA) and its components

- Provides a wide scope for countries to begin producing estimates despite the various levels of data sources and resources available across countries
- Help in coordinating the initial results that can be derived from the Digital SUTs

Country examples

Example: Canada - Industries

Statistics Canada updated and published their estimates in 2023:

- Covers the period from 2017 to 2020
- Contribution of digital industries/ economy to GDP trended up from 5.2 % to 5.9 % in 2020
- ICT sector dominates, especially software and telecommunications production, followed by e-commerce

https://www150.statcan.gc.ca/n1/daily-quotidien, 230725/dq230725a-eng.htm

	2017	2018	2019	2020
	millions of dollars	millions of dollars	millions of dollars	millions of dollars
Total, all industries	**1,991,534**	**2,083,379**	**2,161,924**	**2,076,634**
Total digital industries	104,356	110,633	122,018	122,628
Information and communications technology				
Hardware	6,536	6,913	7,454	6,575
Software	41,891	46,067	52,840	54,565
Telecommunications	36,166	36,399	38,133	38,526
Other services	9,912	9,981	10,151	9,966
Digital intermediary platforms	1,762	2,446	3,025	2,504
Data- and advertising-driven digital platforms	1,024	1,106	1,326	434
Online retailers and wholesalers	3,793	4,017	4,611	5,699
Digital-only firms providing finance and insurance services	2,204	2,476	2,947	2,944
Other producers only operating digitally	1,069	1,229	1,530	1,415

Example: United States - Products

Bureau of Economic Analysis (BEA) published their Digital Economy Satellite Account in 2022

- Covers the period from 2005 to 2021.
- Revises and updates previous estimates due to new source data and improved methodology.

https://www.bea.gov/data/special-topics/digital-economy

Table 1. Digital Economy Gross Output by Activity, 2021

[Millions of dollars]

Digital economy	3,701,722
Infrastructure	1,167,116
Hardware	445,089
Software	722,027
E-commerce	941,970
Business-to-business e-commerce	642,998
Business-to-consumer e-commerce	298,972
Priced digital services	1,592,217
Cloud services	186,589
Telecommunications services	802,139
Internet and data services	213,290
All other priced digital services	390,200
Federal nondefense digital services	420

Example: United States - Industries

- Also breakdown by North American Industry Classification System (NAICS)
- Over 80 percent of gross output produced by 3 industries:
  - information (43.2 percent)
  - Wholesale trade (21.4 percent)
  - Professional and business services (16.6 percent)

Table 2. Digital Economy Gross Output for Major Sectors, 2021

[Millions of dollars]

Digital economy	3,701,722
Information	1,600,191
Wholesale trade	792,532
Professional and business services	615,714
Retail Trade	308,818
Manufacturing	303,349
All other industries	81,118

https://www.bea.gov/data/special-topics/digital-economy

Example: Digital industries

Proportion of total Gross Value Added (GVA), %

	Sweden (2017)	Netherlands (2018)	Canada (2019)
Digital enabling industries	5.23	5.25	4.83
DIPs charging a fee	0.05	0.8	0.15
Data- and advertising-driven digital platforms	-	-	0.05
Producers dependent on DIPs	0.06	0.1	-
E-tailers	2.88	1.8	0.24
Financial service providers predominantly operating digitally	-	0.06	0.16
Other producers operating only digitally	0.88	-	0.04
Total digital industries	**9.10**	**7.9**	**5.46**

Source: Statistics Canada, Statistics Netherlands, Statistics Sweden

Example: Nature of transaction

Proportion of domestic output, %

	Canada (2020)	Netherlands (2018)	Ireland (2020)
Digitally Ordered	7.5%	16.1%	21.8%
Digitally Delivered	2.6%	22.6%*	31.0%*

* Potentially digitally deliverable

Source: Statistics Canada, Statistics Netherlands, CSO Ireland

Conclusions

Final considerations

- Digital SUTs are not the panacea of digital economy measurement.
- Part of a broader attempt to better capture digitalization (e.g., updates to ISIC and CPC)
- Digital SUTs handbook offers a non-prescriptive framework to produce international comparable indicators consistent with SNA
- Can create feedback loop improving national accounts.
- Continue to be developed and refined as more countries compile
- Included as extended (and thematic) accounts in Chapter 22 of the 2025 SNA

THANK YOU

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