UK Digital Economy Survey

Daniel Robinson

ALLCOM and R&D Branch Head

UNECE Session 2 - New developments in communication, globalisation and digitalisation
Thursday, 19th May 2022

Office for **National Statistics**

Presentation overview

1. E-commerce survey
2. Stakeholder consultation
3. Key differences between old vs new survey
4. Comparison of modules
5. Timeline of development activity (slides 7-10)
6. Early insights

Office for **National Statistics**

E-commerce

- E-commerce survey paused in December 2020

- Last reference period published was for 2019

- Upon relaunch survey will be collecting data for 2021

- 2020 missing data point

Presentation focusses on transition to new **Digital Economy Survey**

- Mandatory survey conducted annually

- Sample size of 11,000

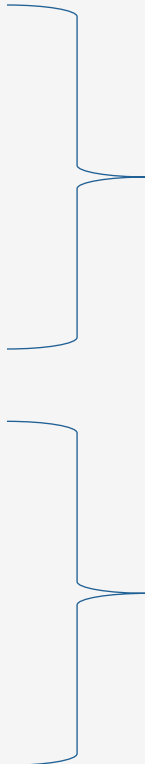- Data collected electronically use an electronic questionnaire

Stakeholder Consultation: Jan – May 2021

Stakeholders requirements

- Dept. for International Trade
- Dept. for Culture Media and Sport
- Scottish Government
- Business for Enterprise, Innovation and Strategy
- Competitive and Markets Authority
- ONS – Digital Supply and Use tables

Online consultation

- Mailout to 40,000 recipients
- E-commerce
- Internet related releases Access / Users
- Sharing Economy
- Published blog to promote consultation

- Built up over 200 requirements
- Expansion of data to include data on e-commerce imports
- Expansion of geographical coverage albeit high level
- Move to collect actual £million values of e-commerce activity – previous proportions collected
- Specific questions added to support internal development of digital supply use tables
- Futureproofing to accommodate future updates

- 38 Responses representing 1,100 people
- Favourable of e-commerce for dimensions consulted on
- Low impact of pauses to other outputs

Office for **National Statistics**

Key Differences

- E-commerce purchases (including UK imports) – previously only collected E-commerce sales

  - ➢ By continent
  - ➢ Types of customers (==business to business, business to government==, business to consumer)
  - ➢ More detailed questions on types of sales i.e. digitally / non-digitally delivered
    - o Digitally delivered – Online education services, games, e-books
    - o Non-digitally delivered – Food ordered online but delivered to your door
  - ➢ Types of platforms used i.e. online market place, own website

- Survey will collect actual E-commerce values compared to percentages

Office for **National Statistics**

Comparison of modules

2019 E-commerce	2021 Digital Economy Survey
Use of computers	Use of Computers
E-commerce	E-commerce
Cloud Computing	Cloud Computing
Big Data	Big Data
ICT Specialists and Skills	Technology
3D Printing Technology	Use of business software
Robotics	**ICT Security**
Invoicing	**Digital Intermediary Platforms**
	Digital Supply and Use tables

* Digital intermediary platform - this refers to online retail and social media platforms.

Office for **National Statistics**

Questionnaire Drafting: June – July 2021

- Clarification of requirements with users

- Duplication of requirements investigated

- Requirements condensed
  - Survey increased from 43 questions to 79 compared with over 200 collected

- Requirements drafted in author tool in readiness for cognitive testing

- Paper questionnaire development under way (internal purposes only)

- Communications sent to stakeholders about questions dropped

Cognitive Testing: August – October 2021

- Around 10 interviews conducted

- 41 recommendations were made linked to:
  - Definitions – Looked to international guidance / referred to stakeholders
  - Deletions - Questions not understood by business community
  - Quality of responses – Linked with regulatory compliance questions

- Recommendations reviewed / actioned

- In hindsight – rather than just testing new questions, a complete walkthrough of the electronic questionnaire with businesses would have been beneficial

Methods review: October 2021 – March 2022

- Aims of which are to:

  - Specify an estimation and outlier method
  - Review imputation methodology
  - Specify validation rules to apply
  - Review sample allocation

- Initial report with recommendations delivered end of February 2022
- Implementation work commenced March 2022

Office for **National Statistics**

Sampling / Dispatch / Publication:

- Sampling commenced January 2022

- Survey dispatched 28 February 2022
  - Letter initially with registration details to complete electronically

- Data collection spans March – September 2022

- Results production October – November 2022

- Publish results December 2022

Office for **National Statistics**

Dispatch Early Insights

- Survey launched in 3 batches

- 10% response achieved within first 4 weeks

- End April – Response 42% compared to 51% for the same point in time E-commerce Survey was last run

- High first time failure rates
  - Mid April clearance rate is only 10% compared to 29% for the previous e-commerce survey
  - Due to length of the survey – now doubled, complexity of questions and validation rules applied

- Validation rules are constantly being reviewed and relaxed where possible to improve clearance levels

- Feedback from multi-national enterprise is that the survey is difficult to understand, much of the data is not available particularly by geography, complexity of their business means it is unclear what should be recorded

- Example of mis-interpreted question (25% returns failing on this)
  - During 2021 did the business engage in any digital activities? e.g., making e-commerce sales
  - Businesses are reporting they did not but later reporting e-commerce sales

Next steps

- Continue to monitor data collection, reviewing validation rules

- Incorporate results methods into systems to produce survey results

- Review survey responses identifying questions that are not performing as expected with a view to either conducting more testing or removing

- Results production September – November 2022

- Aim to publish results in December 2022

Questions