Implementation of the statistical unit "enterprise" for qualitative variables : the French experiment

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Objective and context

- Objective : To be able to comply with the European FRIBS regulation to **report statistics** on **qualitative** variables such as global value chains, ICT, Innovation at **the enterprise level**
- Insee has launched a working group earlier this year to deal with different issues related to reporting statistics on qualitative variables at the enterprise level

1. Should we **collect** information at the legal unit level or at the enterprise level?
2. If we stick with the legal unit level, should we and are we able to survey **all units** of a sampled enterprise?
3. If we survey only one legal unit from the sampled enterprise, **which one** should we choose?
4. How do we communicate with the firm, as the enterprise is a **statistical concept** and not a legal one?
5. To start this brainstorming, **two experiments** had been already carried out and a **third one** is underway

First experiment : global value chains survey - 1 -

- In 2016, when the **global value chains survey** was launched, the statistical concept of enterprise was not really disseminated among firms ….
- Faced with the difficulty of managing the statistical unit enterprise concept in a very short time period, Insee has decided to narrow (and simplify) the scope of this non mandatory European survey, and **to focus on SMEs.**
- The main reason was that for SMEs, an enterprise would be a group, and not a subset of a group as for large groups : easier to communicate with firms
- For **every enterprise**, namely a SME, whatever how many affiliates were involved, **only one unit was surveyed**.
- Most often, this unit was the **group head**, i.e. the holding, in charge of answering for the entire enterprise
- In France, we had made sure to obtain the **mandatory** status for this survey

Global value chains survey - 2 -

- This GVC survey is essentially a qualitative survey. It has only three quantitative questions and only one allowing to verify on which perimeter the sampled firm has answered (number of employees)
- In the process of collecting the survey, numerous contacts were taken when there could be a doubt over the perimeter
- Several cases were encountered
    - the answering company would refuse to answer for other affiliates
    - the answering company would not have the information
    - The perimeter was not the one we were expecting, including affiliates abroad or not in the hard core
    - The main conclusion of this experiment on mainly qualitative information is that it was feasible but very time consuming and the main issue was to be able to share / agree with the enterprise the correct perimeter

Second experiment : Informat. & Com. Technology Survey - 1 -

- In 2018, an experimental ICT survey was launched to test questioning (and answering) at the statistical enterprise level
  - An oversample of 2,000 enterprises (with 2 to 20 affiliates), surveyed over the **summer period**
  - The experimental survey was **not mandatory**
  - A question was added at the end, asking the enterprise to give the **precise perimeter** on which it has answered
- Three types of units were contacted
  1. Group heads from the traditional scope of the ICT survey
  2. Group heads not from this scope
  3. Units that are not group heads
- This experimental survey was completed by about ten **head-to-head tests** for larger units (over 20 affiliates)

ICT Survey - 2 -

- Around a third of the units have answered
- The answer rate is not very dependent on the type of units contacted
- Respondents underlined that the question concerning the perimeter should be at **the beginning** of the questionnaire
- Very often, exchanges between the survey manager and the firm lead to a change of the perimeter
- Pretty often too, the survey manager found a contact that was able to answer the questionnaire
- And around half of firms contacted were not and would not be able to provide consolidated data

ICT Survey - 3 -

- Main results of this ICT experiment
  - **Definition**: The concept of “enterprise” should appear at the beginning of the questionnaire and should be carefully explained
  - The **ability** of companies **to understand** the “enterprise” concept on their own and their sufficient knowledge to reply on this perimeter, however, is **very variable** from one company to another
  - **Training**: Survey managers have to be trained and encouraged to exchange with companies
  - **Adaptation**: Anticipate /elaborate rules when perimeters differ over time
  - **Rules**: define rules and pieces of advice when firms are not able to answer on the enterprise perimeter

Community Innovation Survey Experiment- 1 -

- The CIS ongoing experiment
- In France, most often, a group is an enterprise
  - **For 5 large very companies** : answers for “heads of group” and some affiliates of each enterprise
  - 61 legal units answers from which 5 group heads
  - 3 examples of answers in this presentation
    1. Strategies for the economic performance
    2. Types of goods or services to meet user requirements
    3. Product and process innovations

Strategy for the economic performance : answers for one enterprise with head + 36 affiliates

During the 3 years 2016 to 2018, how important were the following strategies to the economic performance of your enterprise	Head of group	affiliates				Most often ticked			
Focus on		High	Medium	Low	Not important	H	M	L	NI
1. improving your existing G&S	Medium	7	23	6	0		X		
2. introducing new G&S	Medium	5	19	7	3		X		
1. low-price (price leadership)	Medium	5	19	7	4		X		
2. high-quality (quality leadership)	Medium	15	18	3	0		X		
1. broad range of G&S	Medium	5	17	8	4		X		
2. One or a small number of key G&S	Medium	1	13	11	9		X		
1. satisfying established customer groups	Medium	17	17	1	0		X		
2. reaching out to new customer groups	Medium	11	19	2	2		X		
1. standardised G&S	Medium	2	19	9	4		X		
2. customer-specific solutions	Medium	9	16	9	1		X		

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Strategy for the economic performance : answers for one enterprise with 36 affiliates

Very heterogeneous answers on the importance of different strategies

How to summarize 37 answers for the enterprise?

- One possibility: at the enterprise level, select the answer with the best appreciation among affiliates + head

  High degree of importance for each question

  But not reflecting the head of group's answer

  Neither reflecting most affiliates' answers

- Another possibility: select the most frequently ticked answer among affiliates +head

  Medium degree of importance, reflects the head of group's answer

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CIS 1: Strategy for the economic performance : answers for 5 enterprises with 56 affiliates

During the 3 years 2016 to 2018, how important were the following strategies to the economic performance of your enterprise	5 Heads of group				56 affiliates				Most frequently ticked answer, by enterprise			
Focus on	High	Medium	Low	NI	H	M	L	N I	H	M	L	NI
Improving your existing G&S	2	3			13	35	8		1	4		
Introducing new G&S *	2	3			10	31	10	3	1	4		
Low-price (price leadership) *	1	3	1		15	26	14	4	1	3	1	
High-quality (quality leadership)	2	3			25	27	4		1	4		
Broad range of G&S	1	4			10	23	14	6	1	3	1	
One or a small number of key G&S *	1	3	1		2	16	21	14		2	3	
Satisfying established customer groups	2	3			27	23	4		3	2		
Reaching out to new customer groups	2	3			20	25	6	3	2	3		
Standardised G&S *	1	3	1		22	14	6	9	1	2	1	1
Customer-specific solutions **	1	4			16	22	15	2	2	3		

Also heterogeneous answers for the 5 enterprises and their affiliates

1. Select the answer with the best appreciation at the enterprise level for each enterprise
- For 2 enterprises, high degree of importance for each of the 10 questions
- For each of the 3 other enterprises, 2 questions with medium d. of importance, not the same questions across firms (with a star in the table)
- not reflecting the answer of the enterprise's head
- neither reflecting most affiliates' answers

2. Most frequently ticked answer by the enterprise's legal units
- medium degree of importance is then the most frequently ticked answer at the enterprise level,
- one enterprise high degree
- and another low

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CIS 2: Types of goods or services to meet user requirements : answers for 5 enterprises and their 56 affiliates

During the 3 years 2016 to 2018, did your enterprise offer any of the following types of G&S to meet user requirements	5 Heads of group		56 Affiliates			enterprises
	Yes	No	Yes	No	NR	Yes if at least one yes in the group
1. CO CREATION **G&S co created wit users, the user had an active role in the creation of the idea, the design and development of the product and improving your existing G&S**	4	1	22	33	1	5
2. CUSTOMISATION **G&S designed and developed specially to meet the needs of particular users**	5	0	27	28	1	5

CIS2 : Types of goods or services to meet user requirements : answers for 5 enterprises and their 56 affiliates

- Enterprise level answer different from unit level answer,

- As at the enterprise level, **all firms co created with users**

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CIS3: Product and process innovations : answers for 5 enterprises and 56 affiliates

During the 3 years 2016 to 2018, did your enterprise introduce any	5 Heads of group		56 Affiliates			Yes if at least one yes in legal units of the group	
	Yes	No	Yes	No	NR	Yes	No
• New or improved goods	4	1	13	13	30	5	
• New or improved services	4	1	19	13	24	5	
• Any of the following types of new or improved processes							
1. Methods for producing G&S	2	3	15	14	27	4	1
2. Logistics	4	1	15	15	26	5	
3. Methods for information processing and communication	3	2	19	13	24	5	
4. Marketing	4	1	12	9	35	5	

CIS3: Product and process innovations

- Enterprise level answer different from legal unit level answer
- If the rule is that an enterprise innovates when as least one of its legal units introduces an innovation:
  - all enterprises introduce product (goods and services) and process innovations
  - Only one enterprise does not introduce new methods for producing goods and services
  - These are large enterprises and may be not surprising. It needs to be checked on a larger scale

Community Innovation Survey Experiment

- Main results of the CIS ongoing experiment
  - Necessity to define **common** rules for aggregation **across countries**
  - Rules could depend of the question
    1. Most often ticked answer
    2. Higher level answered for the question within each enterprise
    3. Yes if at least one unit answers yes

  - Will give a pretty different image of innovation
  - For example, a much larger number of enterprises will innovate …. Most of – all ? large enterprises … ?
  - For all kinds of innovation?
  - Interest of the questioning?
  - Need to change the questioning?
  - Time is needed to deal with all these issues …

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CIS4: Hampering factors to start innovation activities : results for 5 groups with 56 affiliates

During the 3 years 2016 to 2018, how important were the following factors in hampering your enterprises' decision to start innovations activities	5 Heads of group				56 affiliates				Higher level within each group			
	H	M	L	Not	H	M	L	Not	H	M	L	Not
Lack of internal finance for innovation	0	2	2	1	6	15	7	21	0	2	4	1
Lack of credit or private equity	0	0	2	3	3	11	9	23	0	1	4	2
Difficulties in obtaining public grants or subsidies	0	1	2	2	7	3	11	28	1	0	4	2
Costs too high	0	1	3	1	7	9	10	23	2	1	3	1
Lack of skill employees	1	2	1	1	7	12	9	20	1	1	4	1
Lack of collaborative partners	0	1	2	2	2	12	12	22	0	2	4	1
Lack of access to external knowledge	0	0	3	2	4	5	17	22	1	1	4	1
Uncertain market demand for your ideas	0	1	3	1	6	9	10	21	1	0	4	2
Too much competition in the market	0	1	2	2	2	7	14	24	0	1	4	2
Different priorities within your enterprise	1	0	2	2	13	10	8	17	1	0	4	2

CIS4: Hampering factors to start innovation activities : results for 5 groups with 56 affiliates

Enterprise level answer different from unit level answer and from head group answer

More enterprises with hampering factors that from head groups’ answers or affiliates’ answers

Again the importance to decide what is the best rule for aggregation for each type of question