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EXPERT MEETING ON STATISTICAL
DATA COLLECTION 2023 -
RETHINKING DATA COLLECTION -



AN AGILE APPROACH TO DIRECT OFFICIAL SURVEYS

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Why an "agile" approach to official direct surveys

Starting point: *"The nature of data collection is bound to change. Using solely primary data collection would be too time-consuming, costly and burdensome to satisfy the increasing demand"*. [Salemink I. et al. 2020].

Agile approach:

General Features:

- Efficiency and speed
- User orientation
- Cost reduction
- Multidisciplinarity

Data quality constraint:
TSE paradigm

Operational solutions in survey processes:

- "Once only" approach: interoperability
- **Multisource** approach
- Application of **adaptive survey techniques**
- **Samples and questionnaires reduction**
- **Questionnaires** optimization
- Process **automation-oriented** techniques
- Primary **role of CAWI** technique
- **Web portal** for users
- **Specialized assistance** services to respondents

FOCUS:

Effectiveness of CAWI technique supported by a centralized contact center service in business surveys

The role of Cawi in business direct surveys

In CAWI business surveys, ISTAT applies an agile approach. CAWI mode is supported by **different tools**:

Respondent Web Portal:

- single access point for filling in the questionnaires
- functionalities and services supporting the users

Centralized contact center inbound service:

- information and support to the units, thematic and non thematic aspects
- direct support for filling in the questionnaires on request

Centralized contact center outbound service:

- massive reminders to non respondents (by sms/email/PEC)
- customized reminders (by phone)
- recovering of missing values (by phone)

Compensate for the disadvantages of single-mode CAWI

CAWI mode has advantages and disadvantages:

- | | |
|--|--|
| ✓ Cost | ✗ Coverage |
| ✓ Timeliness | ✗ Absence of interviewer
(response rate, measurement bias,
missing values) |
| ✓ Flexibility in filling in the questionnaires | ✗ Interruption of the questionnaire |
| ✓ Absence of interviewer (privacy) | |
| ✓ Data quality control | |

The absence of the interviewers can be partially compensated with an «agile» contact center service:

- support and problem solving activities (INbound) can improve the collaboration to the survey, the data quality and the response rate
- remind and recoveries activities (OUTbound) can improve the response rate and the completeness of collected information

The agile approach in ISTAT: an application (1/2)

Permanent Business Census ed. 2022:

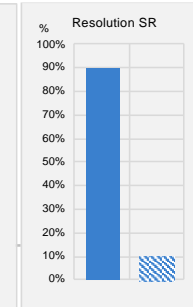
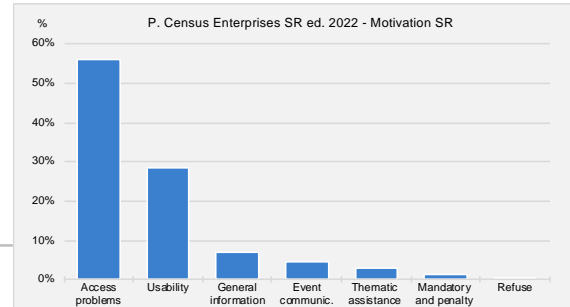
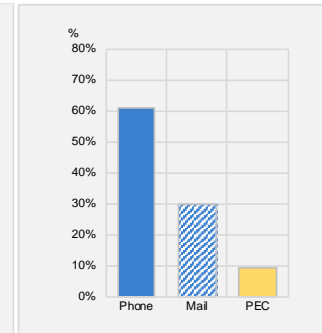
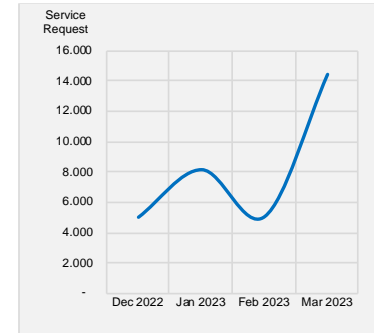
- about 278.000 units
- data collection period: 28nov2022-31mar2023
- CAWI with the support of centralized contact center service



Inbound service - some evidences:

- 32.000 service requests in 4 months
- 60% by phone and 40% by email/PEC

- 56% of *access problems*
- 90% solved by operators



The agile approach in ISTAT: an application (2/2)

Outbound service – Features:



- 1 preliminary activity to recover missing telephone numbers
- 2 telephone reminder to different non-responsive units
- 1 final telephone reminder to the most important non-responsive units, some of which contacted in the previous waves

Outbound service - Some evidences

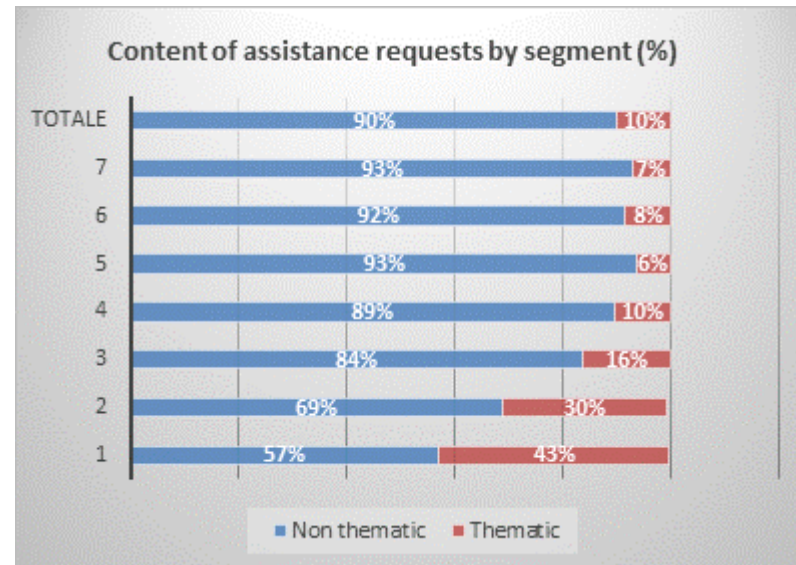
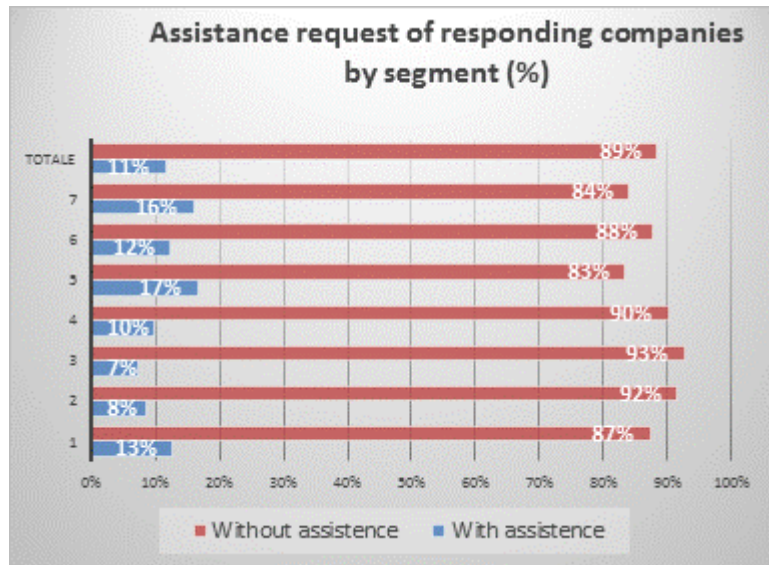
Typology	n. units in the list	% units contacted	% responding units after reminder
1st telephone reminder	35,111	28.7	39.7
2nd telephone reminder	36,761	30.3	44.2
Final telephone reminder	5,971	68.3	50.3

The segments of the 2022 permanent business census

For data collection purposes, the sample was divided into **7 segments**, according to the following variables: **dimension, previous registration to web portal, new entry in the web portal, questionnaire type** (long or short form):

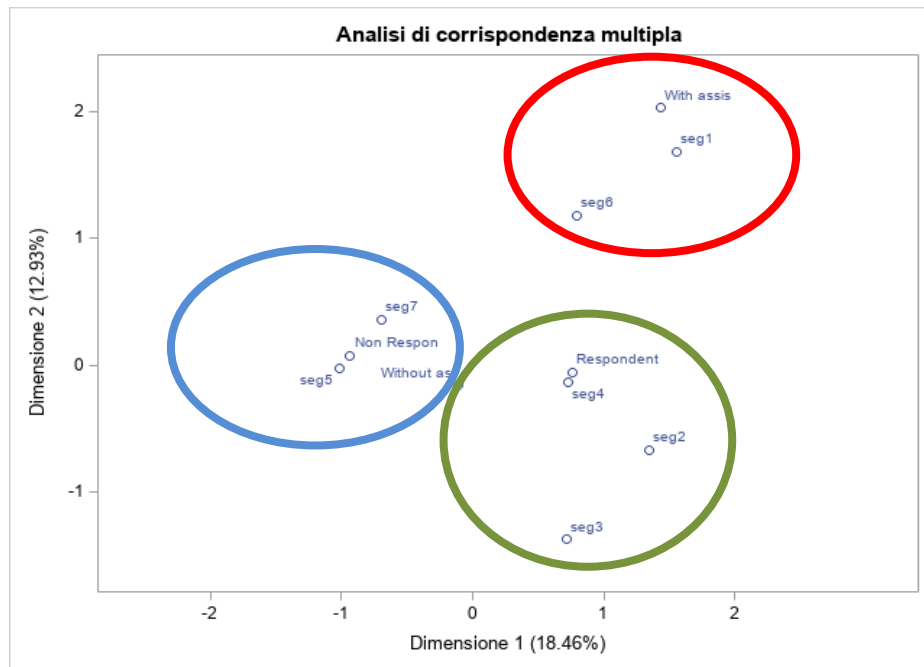
1. Large economic units at national level (500+ employees) REGISTERED with long questionnaire (**1,612** companies)
2. nationally relevant economic units (250-500 employees) REGISTERED with long questionnaire (**2,282** companies)
3. Medium economic units (20-250 employees) REGISTERED with long questionnaire (**62,521** enterprises)
4. Small economic units (10-20 employees) REGISTERED with long questionnaire (**29,753** companies)
5. Other economic units (10 AND more employees) NOT registered or NEW Portal with long questionnaire (**32,394** companies)
6. Micro economic units (less than 10 employees) REGISTERED with short questionnaire (**44,054** companies)
7. Micro economic units (less than 10 employees) NOT registered or NEW Portal with short questionnaire (**105,788** companies)

Role of the inbound assistance service in the segments of the permanent business census (1/2)



- About **11%** of respondent companies called the service, on average for 11 minutes of assistance.
- The use of the service especially concerned companies included in segments 5,7,1,6, (mainly **micro and very large enterprises**)
- Larger companies that are already registered on the web portal send more **thematic requests** (content of the questionnaires)

To better understand the relationships between the variables: response rate, use of inbound service and segment, a multiple correspondence analysis was carried out.

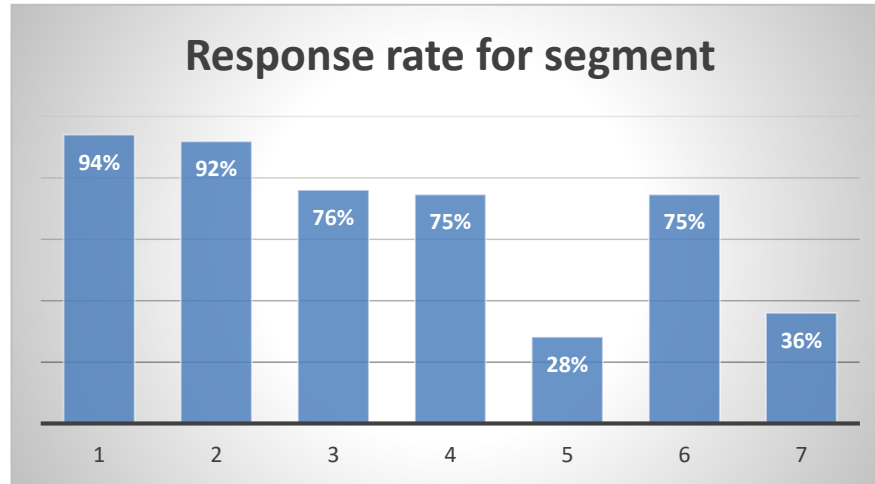


The analysis identified 3 main groupings:

1. higher service rates and satisfactory response rates (*effective service*)
2. lower service rates and satisfactory response rates (*autonomous businesses*)
3. higher service rates and unsatisfactory response rates (*partially effective service*)

- The centralized contact center service is a **useful tool towards an agile data collection process** aimed at efficiency and compliance with user needs
- **The service is an effective support to the CAWI technique** in order to maintain the response rates
- Analysing the behavior of the respondents in different segments of the sample allows to **optimize the available resources allocation**
- In general, the **larger companies and micro-enterprises** experience greatest usefulness of the service. The motivation is respectively a greater organizational complexity and a less habit to participate in surveys. For the micro it is necessary to identify **additional tools** in order to support the participation rates
- The centralized contact center should be integrated with **additional customized services** (e.g. CATI interview on demand)
- **Other aspects** contribute to the realization of an agile approach to business direct surveys. In particular **using alternative sources, reducing samples and questionnaire length, process automation**
- **Ensuring the data quality** remain the constraint, in the framework of the TSE (Total Survey Error) paradigm

Permanent Business Census ed. 2022 - Response rate for segment of enterprises



Thanks!

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