INSTITUTO NACIONAL DE ESTATÍSTICA STATISTICS PORTUGAL

FIFTH INTERNATIONAL WORKSHOP ON BUSINESS DATA COLLECTION METHODOLOGY

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Leveraging Behavioural Insights to Improve Construction Businesses' Survey Response

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Project Aims

- Explore the use of behavioural science principles to increase the number of businesses that return the survey questionnaire on time, thereby reducing resources spent response chasing
- 2. Assess the feasibility of behavioural insights trials across business surveys, and gauge the benefits of behavioural insights interventions weighted against the operational and reputational risks.











The Problem

ONS Construction Survey is one of our most resource-intensive and expensive monthly surveys for response chasing

- responses are typically late
- respondents complain that they are unable to provide the data
- complaints and queries relating to our survey materials (letters, reminders)
- unnecessary administrative costs (chasing calls, reminders, follow-up communications)
- ➡ increased respondent burden
- quality concerns for the Monthly Construction Statistical release











From a respondent's point of view: identified psychological/ behavioural barriers

- The request is unclear and/or key information is not received in a timely manner
- Perceived high cost associated with responding which ONS is not clearly recognising
- □ Failure to understand/recognise the value of providing the information
- Perception that the ONS is not making full use of existing resources, and so it is wasting their time











Can we use behavioural insights to address (some of) these psychological/behavioural barriers and so improve the timeliness of responses to ONS Construction Survey?











Challenges

Can we apply behavioural insights to businesses rather than individuals?

- Respondents must answer for the **business**, not for themselves
- Participation is mandatory
- ONS Construction Survey is a multi-wave survey, incl. long-standing respondents (with biased prior experience and/or hard-to-switch established reporting routines)

Responses

- Questionnaires are at the end completed by people with the normal range of emotions/strategies for avoiding unpleasant tasks (Dillman, 2000)
- Authority principles may work, but respondent-driven compliance principles of reciprocity may be more effective (Snijker & Luppes, 2000)
- Different types of interventions for different types (long-term vs. newly) respondents











Challenges

Operational constraints and risk perception:

- Risk aversion from the statistical outputs' team: concerns that the intervention may adversely affect the data (and so the estimates)
- We could not reduce the cost of being a respondent by changing the format / content / structure / paper-based mode of the survey
- Experimental interventions were a «first timer» for ONS business operations:
 little pre-knowledge of the operational and processing obstacles that we might be facing at the difference stages of the survey cycle

Responses

- We only experimented with newly-selected and smaller businesses whose data is of less primary importance for the Construction Survey Statistical Release
- We changed the way we approach businesses and aim to build trust in respondents and improve their cooperation (i.e., avoiding being confrontational)
- We Identified and involved key internal stakeholders from the start, and created a process map of ONS Construction Survey cycle











Main nature of intervention

A respondent-oriented communication strategy centred on the compliance principles of reciprocity that:

- was built around respondent importance and the usefulness of the survey
- acknowledged the respondent's effort and costs of responding
- acknowledged that the survey process could (and will) be improved
- was not confrontational (businesses were already frustrated!)
- clearly conveyed purpose and expectation of the communication, at each stage, and provided all key information at the right time
- was personal (whenever possible).











The "business as usual"











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Behavioural Science principles used

RECIPROCITY

We have an inherent desire to help those who have helped us in some way

HEAD START

When we're made feel like we're making progress, we're more likely to complete a task

MESSANGER EFFECT

We are highly influenced by the identity of who is communicating the information

MAKE IT TIMELY

Help people planning and prompt them when they are more likely to be receptive increase chances they'll complete the task

HASSLE FACTOR

Reduce the perceived effort or 'friction' required to perform an action.

"GETTING SMTH BACK"

A positive engagement feedback loop makes people willing to engage again in the future























New "BI" Communication Strategy

RECIPROCITY

Introduced a Prenotification Letter + FAQ:

- we are writing to businesses to help them plan their response to the survey

- we explicitly acknowledge their effort

MESSANGER EFFECT

Two "voices":

- helpful & informal in the Prenotification Letter (Construction Survey manager)

- official & monitoring in the Intro Letter (Deputy Director of Business Surveys)

HASSLE FACTOR

We simplified the message: clear call for action and no lengthy return details We broke down the goal (responding to the survey) into 3 specific manageable tasks clearly visualised in a checklist diagram

HEAD START

In the Intro Letter, the 3-task checklist diagram had the first box already checked (this is done!)

MAKE IT TIMELY

Prenotification Letter :

- addresses "newbies" (no bias/ no routine yet)
- explicitly to support them to complete the survey form, by highlighting what information is required by when.

"GETTING SMTH BACK"

We included a postcard with the survey form with an infographic based on previous survey results relevant to the business, and a big thank you note











Example: the prenotification letter













Example: the infographic postcard

























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Prenotification Letter FAQ







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The Experimental Trial













Hypothesis

The Behavioural insights (BI) intervention will increase the likelihood of businesses to return their questionnaire by the Return-by-Date (RBD) and within one week after the RBD.

Trial Design

Two-arm stratified randomized control trial (RCT) while conducting ONS Construction Survey in the months of April and May 2018.











Trial Sample

- Businesses (N = 2369) were newly selected participants in the survey sample for January- May 2018
- Stratified randomisation by Month of First Selection (Jan-May) and Size (0-4, 5-9, and 10-19) to account for confounds + permuted block randomisation to assign businesses to the BI group (n = 1183) vs. Control (n = 1186) within each stratum
- No educational call or chasing call was made to trial participants during • the trial survey months

Trial Power

A-priori power simulation suggested a sample size between 2300 and 2500 would give 80% power to detect the smallest effect of practical significant (4 ppt) increase in return rate at alpha = 5% (one-tail)











Results



Response rate (cumulative proportion)

At Return-by-Date (RBD): BI group : 16% Control : 12% β = 0.35 (95% CI 0.11-0.59), Odds-Ratio = 1.41, p = 0.002

At RBD + 7 days: BI group : 45% Control : 37% β = 0.33 (95% CI 0.17-0.50), Odds-Ratio = 1.39, p < 0.001









No sub-group was negatively affected



Response rate (cumulative proportion) by month of first selection



Response rate (cumulative proportion)







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Impact on in-coming queries

Total number of incoming calls from return by date to close down

Historical Data

- April 2017 data not available
- For May 2017 = 683
 - \rightarrow General Information = 290, Help to complete = 38

Trial Months Data (including but not exclusive to trial participants)

• For April 2018 = 550

 \rightarrow General Information = 131, Help to complete = 22

• For May 2018 = 559

 \rightarrow General Information = 153, Help to complete = 21









Conclusions

- We leveraged behavioural science principles to increase the number of businesses that return the survey questionnaire on time, thereby reducing resources spent response chasing
- We could assess the feasibility of behavioural insights trials across business surveys, and gauge the benefits of behavioural insights interventions weighted against the operational and reputational risks.











Lessons Learned

- At the very start, create a clear **process map** of the whole survey process (incl. printing, reception and ingestion) which captures what can go wrong at the different process stages and possible solutions
- **Involve** and meet regularly with key people across different business areas + Set-up roles with clear responsibilities + Establish a process of detailed **reporting** to track decisions and milestone in the project \Rightarrow Promptly address issues and escalate decisions to right level
- When planning, be aware of anything (incl. processes) that cannot be **changed or measured** as part of the intervention (e.g., colours!)
- **Understand the context** of the issue(s) that the intervention is aiming to address with behavioural insights (do not follow a cookbook)
- As behavioural insights experts, be brave in your proposal but be ready to find compromises and start small instead \Rightarrow Essential to build trust with key stakeholder and take in their concerns











Questions

- Switching the behaviour of long-standing survey participants is a different challenge: what might work for them?
- How have you dealt with the risk aversion of key stakeholders?
- How to use the momentum and capitalise on these results?









