From Concept to Question: Using Early Stage Scoping Interviews to Develop Effective Survey Questions to Measure Innovation in Businesses

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Overview

- Background – Innovation Survey Project
- Early stage scoping (ESS) method
- Objectives of our research
- Types of data collected and how used
- Strategies for questionnaire design
Background

• Measuring innovation is not new
  – Concerns about performance of some survey questions
  – Desire to expand types of data collected
• Research effort coordinated by Organisation for Economic Cooperation and Development
• Goals:
  – Assess feasibility of collecting additional data on private-sector innovation
  – Inform design of survey questions
Early Stage Scoping (ESS)

• Qualitative interview technique
• Inform development of survey questions
  – Bridge survey concepts and respondents’ concepts to facilitate comprehension
  – Understand what types of data are obtainable
• Use respondents and companies as starting point
ESS vs. Cognitive Interviews

Different goals

- **Cognitive interviews**
  - Test draft questions and questionnaires
  - Wording, visual design, navigation, functionality

- **ESS**
  - Evaluate new concepts
  - Inform design of survey questions
  - Target data that are consistently measurable
Procedures

• Semi-structured interviews with company representatives
• Non-probability sample
  – n=23 companies, 36 participants
  – Companies – Diverse with regard to size and relevant industries
  – Participants – Detailed knowledge of company activities
Objectives of our research
1. Understand context of target population

• Is “innovation” a relevant concept?
• How do respondents define innovation?
• What terms are used?
• Examples of company activities?
• Internal criteria / metrics?
2. Assess comprehensibility of draft survey concepts

- Where does respondents’ understanding of innovation agree and disagree with survey concepts?
- How can Rs’ perspectives be used as basis to facilitate understanding?
3. Assess availability of data

- What knowledge and records are associated with in-scope activities?
- Who are appropriate respondents?
Types of data collected and their purpose
1. Respondents’ descriptions of innovation

• Provide basis for:
  – Learning Rs’ concepts and terminology
  – Assessing consistency and variation among Rs, companies, and industries
  – Evaluating validity of draft survey definitions
2. Reactions to draft survey definitions

• Provide basis for:
  – Detecting whether draft survey definitions are clear or not
  – Identifying specific points of agreement and disagreement with Rs’ concepts and language
  – Understanding relevance to company activities
3. Examples of company activities associated with innovation

• Provide basis for:
  – Clarifying and complementing Rs’ definitions
  – Assessing comprehension and validity of survey concepts
  – Discussing records
  – Developing effective instructions (in-scope vs. out-of-scope activities)
4. Discussion of data sources

- Individual knowledge vs. records
- Level of detail
- Terminology
- Response processes
- Data quality, burden
- Who are appropriate respondents?
Survey development strategies

• How to apply what we learned in ESS interviews to designing survey questions?
Survey development strategies

• “Unpack” concepts/definitions as needed to reduce complexity and/or ambiguity
  – Parse complex concepts into separate questions
  – Identify key terms and other components that require clarification
Survey development strategies

• Clarify critical distinctions between similar survey concepts by using language and terms that respondents are familiar with
• Provide examples of in-scope and out-of-scope activities
• Use vignettes that illustrate differences between similar concepts
Summary – Conduct ESS to:

- Evaluate, validate, and refine survey concepts
- Inform design of survey questions to account for:
  - R language and concepts
  - Data availability
  - Cognitive processes
  - Response processes
Discussion: How do you deal with survey concept development?

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