



THE JOINT HARMONISED EU PROGRAMME OF BUSINESS AND CONSUMER SURVEYS

List of 'best practice'
for the conduct
of business and
consumer surveys



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Abbreviations and symbols used

BCS	Business and consumer surveys
DG ECFIN	Directorate-General for Economic and Financial Affairs
OECD	Organisation for Economic Co-operation and Development
UN	United Nations

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1. BACKGROUND

At the EU workshop on recent developments in business and consumer surveys (BCS) of November 2012, it was decided to set up a task-force examining the impact of various survey characteristics on the quality of the resulting survey data. While theoretical considerations on the drivers of data quality were accommodated in the task-force, a particular focus was on identifying them empirically. For the purpose of the task-force, quality was understood as accuracy and agreed to be measured along two dimensions: i) the volatility of the survey data and ii) the tracking performance with respect to statistical reference series.

The aim of this document is to disseminate concrete recommendations ('best practice') on how to conduct business and consumer surveys with a view to achieving high data quality. The recommendations are directly derived from the findings of the task-force, as presented on the Joint EU/OECD BCS Workshop of November 2013¹. Given its focus on empirically observable determinants of data quality, this list complements other publications with a more theoretical focus, notably the OECD Handbook on Business Tendency Surveys (2003)², as well as the forthcoming UN Handbook on the conduct of economic tendency surveys, whose publication is scheduled for 2014. The best practice list should furthermore be read in conjunction with the European Commission special report No 5/2006 on the Joint Harmonised EU Programme of Business and Consumer Surveys³. In particular, it builds on and incorporates the International Guidelines and Recommendations on the Conduct of Business and Consumer Surveys developed by the OECD and the Commission in cooperation with national survey institutes and contained in part B of the 2006 special report.

The following section presents the compiled list of best practices separately for business and consumer surveys. Within each group, recommendations are clustered around five major aspects of survey design, all of which have a decisive bearing on the quality of the resulting survey data:

- i) Sampling frames
- ii) Sample size
- iii) Sampling methods
- iv) Measures to increase response rates and treatment of non-response
- v) Weighting procedures

Apart from these five aspects which should pertain to good practice in any business or consumer survey, the international set-up of the harmonised EU BCS Programme requires strict comparability of the collected data, and thus of the underlying questionnaires in national languages. Section 2.3 addresses this specific requirement jointly for business and consumer surveys.

¹ All presentations held on the workshop, as well as the background papers, are available at: http://ec.europa.eu/economy_finance/db_indicators/surveys/workshops_doc/index_en.htm

² available at: <http://www.oecd.org/std/leading-indicators/31837055.pdf>

³ available at: http://ec.europa.eu/economy_finance/db_indicators/surveys/documents/studies/ee_bcs_2006_05_en.pdf

2. LIST OF BEST PRACTICE FOR THE COLLECTION OF HIGH QUALITY BUSINESS AND CONSUMER SURVEY DATA

2.1. Business Surveys

i) Sampling frames

1. Frame lists should include as exhaustive as possible an account of active firms in the survey universe of interest (i.e. they should have a high coverage rate). In this context, the use of official or statistical registers of active firms is recommended over that of more partial business or membership registers.
2. Frame lists need to be updated frequently to ensure representativeness of the population.
3. Institutes are advised to use cut-off strategies in order to stabilise the panel (size cut-off) and to precisely identify the survey objectives (branch cut-off).
4. Establishments⁴ may be considered as the ideal choice for the sample unit, though it is recognised that it may be difficult to gather information at this level. Furthermore, other types of units may be more suitable depending on the focus or interest of the survey, e.g. KAUs⁵ for surveys with a breakdown by industrial branches, such as the harmonised EU business surveys, or local units⁶ for studies on regional structures. Even if the firm is identified as the sample unit, it is advisable to have different reporting units within the firm where possible. It is strongly recommended that the same type of response units answer questionnaires each month.

ii) Sample size

5. The effective sample size (i.e. the amount of respondents actually answering the survey) plays a key role in determining the accuracy of survey estimates. Empirical evidence gathered within the Harmonised EU Programme suggests that effective samples of below 600 or 700 observations are usually associated with an unacceptably high level of irregular fluctuations in the data. By the same token, effective sample sizes in the range of 2000 to 4000 observations prove to be associated with a significantly lower level of irregular data fluctuations, thereby greatly enhancing the usefulness of the data in short-term cyclical analysis and forecasting.

⁴ An establishment is an enterprise, or part of an enterprise, that is situated in a single location, and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

⁵ A kind-of-activity unit (KAU) is an enterprise, or a part of an enterprise, in which the principal productive activity accounts for most of the value added.

⁶ A local unit is an enterprise, or part of an enterprise, which engages in productive activity at one location. A local unit may have more than one kind of economic activity.

iii) Sampling methods

6. The use of probabilistic sample-selection techniques is strongly recommended in preference to purposive or judgemental methods.
7. The use of stratification-based sampling methods is recommended to cope with heterogeneity in the population (e.g. with respect to size).
8. The use of exhaustive sampling is recommended for small countries or for a subset of the sample, e.g. in order to ensure that big companies are included in the sample.
9. A fixed panel should be used, established on a statistically sound basis using a rotating pattern of updating, with a fixed proportion of units being replaced at regular intervals.

iv) Measures to increase response rates and treatment of non-response

10. Prior to conducting the survey, the use of advance letters or calls is recommended in order to increase response rates.
11. Survey modes other than by post (i.e. by email/online, fax, telephone, face-to-face) and multi-mode surveys tend to achieve higher response rates.
12. Experience suggests that a customised report comparing a firm's answers to those of the sector in which it operates incentivizes respondents to participate in the survey, thus increasing response rates
13. There is evidence that other measures proposed by behavioural economics to increase respondents' rewards can lead to higher response rates, such as adding a token of appreciation to the survey material.⁷
14. There is evidence that paying interviewers based on the number of completed interviews is associated with higher response rates.
15. Firms not replying to the survey should be re-contacted (by email, fax, telephone or post).
16. It is recommended that institutes closely monitor the impact of missing data (especially for large firms) and develop a clear set of strategies to minimise non-response.
17. The use of imputation methods for the treatment of remaining missing data should be considered with care, in order to avoid possible distortions.
18. Re-weighting techniques, taking account of different compositions of the panel in adjacent surveys, are recommended as a means of reducing bias.
19. Institutes should describe in their metadata the precise nature of the procedures used in the treatment of item and unit non-response.

⁷ For details see the presentations and background papers of the session on response rates of the 2013 Workshop, available at:
http://ec.europa.eu/economy_finance/db_indicators/surveys/workshops_doc/index_en.htm

v) Weighting procedures

20. The use of weights is strongly recommended in order to improve the precision of the estimates. As a minimum, the use of a simple one-stage system of weights is recommended, though two-stage (or multistage) weighting procedures are recommended for heterogeneous populations, especially in large countries.
21. Weights have to be chosen such that they properly reflect population margins which are related to target variables of the survey.
22. Weights need to be frequently updated.
23. Since the use of weights to increase the precision of estimates can be associated with higher short-term volatility, especially where important branches/strata are dominated by a few large enterprises which might not always reply, the precision and volatility of estimates should be duly monitored. If exhaustive sampling of such strata proves infeasible, adaptations of the weighting system might be warranted to limit irregular fluctuations of sample estimates.

2.2. Consumer Surveys

i) Sampling frames

1. Frame lists should include as exhaustive as possible an account of the adult population (i.e. they should have a high coverage rate). Therefore, official census or statistical registers are preferable to telephone registers.
2. Ideally, in order to facilitate an optimal stratification of the sample, the frame should comprise individuals, rather than households.
3. Frame lists need to be updated frequently to ensure representativeness of the population.
4. If telephone registers are used as sampling frame, they should cover both fixed and mobile telephone numbers. Remaining possible coverage bias should be corrected through appropriate weighting methods.
5. Cut-off strategies with respect to age are advisable.

ii) Sample size

6. The effective sample size (i.e. the amount of respondents actually participating in the survey) plays a key role in determining the accuracy of survey estimates. Empirical evidence suggests that, with a view to keeping irregular fluctuations in the data at an acceptable level, the effective sample of a consumer survey of the type conducted within the Harmonised EU Programme should as a rule comprise not less than 1,000 observations.

iii) Sampling methods

7. It is strongly recommended that random sampling techniques be used to ensure survey representativeness.
8. In the case of heterogeneous populations, stratified sampling methods are preferred over simple random sampling.

iv) Measures to increase response rates and treatment of non-response

9. There is evidence that the use of advance letters or calls prior to conducting the survey can raise response rates.
10. Surveys based on face-to-face interviews tend to achieve higher response rates than surveys based on telephone interviews.
11. There is evidence that measures proposed by behavioural economics to increase respondents' rewards can lead to higher response rates, such as adding a token of appreciation to the survey material or providing small rewards conditional on consumers' participation in the survey.
12. Consumers not replying to the survey should be re-contacted (by email, telephone or post).
13. There is evidence that paying interviewers based on the number of completed interviews is associated with higher response rates.
14. It is recommended that institutes closely monitor the impact of missing data and develop a clear set of strategies to minimise non-response.
15. The use of imputation methods for the treatment of remaining missing data should be considered with care, in order to avoid possible distortions.
16. Re-weighting techniques, taking account of different compositions of the sample in adjacent surveys, are recommended as a means of reducing bias.
17. Institutes should describe in their metadata the precise nature of the procedures used in the treatment of item and unit non-response.

v) Weighting procedures

18. Weighting is recommended in order to ensure better representativeness of the sample selected. Weights could comprise demographic characteristics such as age and gender, region of residence and size of township, or socio-economic characteristics such as occupation, level of education, and type of area municipality.
19. Weights need to be frequently updated.

2.3. Questionnaire wording and design

1. To permit the comparability of survey results across countries and the computation of meaningful aggregates at the EU and euro-area level, it is vital that national questionnaires be as literal as possible translations of the original harmonised EU BCS questionnaire. Deviations are only justifiable for strictly idiomatic reasons. This implies that modifications of the time horizon survey questions refer to, as well as alterations of the inquired concept (e.g. asking for changes of a variable instead of levels) are to be avoided.⁸ The same goes for the answering categories provided in the harmonised EU BCS questionnaire, which need to be translated literally.
2. Since the sequence and context in which survey questions are asked can influence respondents' answering behaviour, the questions of the harmonised EU BCS questionnaire should be asked i) in the same order as in the harmonised questionnaire and ii) at the beginning of the respective national questionnaire, if the questionnaire also contains non-harmonised questions. In the latter case, these additional questions should not refer to sub-categories of one of the concepts inquired by the harmonised questionnaire, since this would indirectly alter respondents' understanding of the harmonised question.

⁸ For further examples of conceptual deviations from the harmonised questions that are to be avoided, see the following 2013 Workshop presentation:
http://ec.europa.eu/economy_finance/db_indicators/surveys/documents/workshops/2013/ec-ecfin_reuter_task_force_on_volatility_analysis_of_individual_questions_animated_version.pdf

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