



This introduction is part of the

Memobust Handbook

on Methodology of Modern Business Statistics

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INTRODUCTION TO THE MEMOBUST HANDBOOK

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1. About the handbook

1.1 Introduction

This is the introduction to the *Handbook of Methodology for Modern Business Statistics* (henceforth: the Memobust handbook). This handbook was developed between January 2011 and March 2014 as the main output of an ESSnet project called Memobust. The Memobust project was primarily financed by Eurostat and it involved the national statistical institutes (NSIs) of initially eight (later: seven) European countries.

The Memobust handbook consists of a large number of modules describing themes and methods that are relevant to the design and production of business statistics (including trade statistics¹). This modular form was chosen for the handbook to facilitate its maintenance. More details on the form and structure of the handbook are given in Section 2 of this introduction.

1.2 Aim, intended readership, and scope

The Memobust handbook is intended to update the *Handbook on the Design and Implementation of Business Surveys* (Willeboordse, 1998). In fact, ‘update’ is somewhat of an understatement. ‘Rewrite’ is a more apt description since both the structure and the contents of the handbook profoundly changed.

The purpose of the Memobust handbook is to aid those working in the area of business statistics. As such, the intended readership of the handbook is rather diverse. The handbook is primarily aimed at professionals who are active in the area of business statistics at (national or international) statistical institutes, including business survey managers, statisticians, and methodologists. It may also appeal to researchers from academia who want to learn more about the techniques that are currently being applied to produce business survey data in practice. In particular, the handbook should be helpful to those who are new to (a particular area of) business statistics.

The prerequisites are modest. The technical level of many of the contributions has been deliberately kept low, with the aim of getting across the basic ideas behind a technique or methodology. For those who want to delve deeper into a particular topic, references are provided to more advanced, more detailed or more technical

¹ Below we shall typically refer only to business statistics, but this does not necessarily imply that trade statistics are excluded.

material. In principle, these references should be publicly accessible and written in English.

In principle, the scope of the Memobust handbook is restricted to describing those methods that are currently in use in the production of business statistics within the European Statistical System, or that could potentially be used as such. In the former case it concerns methods that have been around for some time. In the latter case it concerns promising methods from recent research. Inevitably, the handbook also discusses some aspects that are not strictly methodological (e.g., related to process design and quality) and/or that are not restricted to the area of business statistics (e.g., some methods could also be used for person or household statistics). The Generic Statistical Business Process Model (GSBPM; see Vale, 2009) is used to structure the material in the handbook. The scope of the handbook extends to all phases of the GSBPM, with an emphasis on those phases with a strong methodological component (*viz* Collect, Process, and Analyse).

The Memobust handbook is *not* devoted to laws, regulations, conceptual definitions, etc., although they are referred to if appropriate. Neither is the handbook intended to be prescriptive concerning the use of methods for the production of business statistics. Rather, the merits and demerits of different methods are described and compared.

The title of this handbook includes the word ‘modern’. It should be stressed that this is not so much a statement of fact as an appeal to keep the handbook up to date. This can only be achieved if the handbook lives up to its expectations and is valued by its users.

1.3 Business statistics

As mentioned above, the Memobust handbook is devoted to business statistics. But what are business statistics? The aim of this section is to demarcate, to define an area, not to answer a philosophical question. More specifically we try to answer this question by contrasting business statistics to social (person and household) statistics.

Let us state beforehand that we believe that the demarcation line is not a sharp one and in some areas virtually non-existent. Nevertheless, there are differences between both areas. In Kloek (2011), three differences between business and social statistics are mentioned explicitly (complexity of units, skewness of distributions, type of variables), but several more are implicitly being stated as well.

In Table 1 we have made a comparison of business statistics, household statistics and person statistics on various aspects. Regarding most aspects, business statistics and person statistics can be thought of as being on different ends of the spectrum, with household statistics somewhere in between. It should be stressed that the differences are not always that extreme in practice.

These differences between business and person/household statistics result in different methodological requirements. We refer to Kloek (2011) for an overview of these differences by methodological topic.

Table 1. Comparison of business, household and person statistics

Characteristic	Business statistics	Household Statistics	Person Statistics
Complexity of statistical units	Large	Medium	Small
Demarcation of units	Difficult	Fairly complicated	Easy
Dynamics of units	Complex	Complex	Simple
Size variation of units	Large	Small	None
Skewness of distributions	Large	Mostly small	Small
Type of variables	Mainly numerical	Mainly categorical	Mainly categorical
Number of variables	Small	Large	Large
Population size	Small-medium	Medium-large	Large
International comparison	Hard	Hard	Hard

2. Form and structure

2.1 Form

The name ‘Memobust handbook’ is somewhat misleading. In fact, this handbook is not a traditional book like its precursor and other existing handbooks on business statistics, such as Cox et al. (1995). Instead of being a monolithic structure, it consists of a set of separate, but interconnected, electronic documents (PDF files), called modules. In addition to this core material, there are a few documents that serve as introductory, contextual or background material.

The main advantage of this modular form is that it allows continuous updating. These updates may include the modification of existing modules, the addition of new ones, and the deletion of obsolete ones. This updating can be done locally, affecting only a small part of the handbook, while leaving the bulk intact.

2.2 Topics and modules

The Memobust handbook is subdivided into topics. Each topic covers a specific part of the methodology of business statistics, for instance “Sample Selection”, “Data Collection”, and “Statistical Disclosure Control”. A full list of topics in the handbook can be found in the table of contents.

Each topic in the handbook consists of at least one module. There are two types of modules: themes and methods. Roughly speaking, themes are less specific and more verbal pieces that aim to discuss a common point in a general, non-technical way. They point out, for instance, what certain techniques have in common, why they are used, etc. Methods are more specific, and usually more technical in nature. Themes should be suited for a rather broad readership, whereas method modules are predominantly written for specialists, such as methodologists. Both types of contributions have a standardised format. They are written using templates, which have been especially designed for the handbook.

The templates can also be found on the website. In order to understand the modules better (i.e. how they were ‘filled in’, it is advisable for the interested reader to consult these templates. The instructions for the various items in the templates may be illuminating.

2.3 Navigating the handbook

There are several ways to access the information in the handbook. First of all, the electronic modules are stored on the Memobust website in a hierarchical structure. This structure should provide sufficient information for a reader to find modules on a particular subject.

Another option is to use the glossary which provides access to relevant modules on the basis of key words. The glossary also serves, of course, as a source of explanation for technical terms, concepts, vocabulary acronyms, etc. used in the handbook.

Finally, the modules in the handbook contain many cross-references to each other. This makes it possible to navigate within the handbook, without reverting to the glossary or the hierarchical structure.

3. The project team

Although there are only three authors of this introduction, it should be clear that the Memobust handbook is the result of a joint effort by many people. First of all, we should mention that the handbook would not have existed without the initiative and financial support of Eurostat and of the NSIs involved in the project.

Below, we have tried to list the names of all persons who have contributed in some way or other to the creation of the handbook over the course of the Memobust project. This includes writers and reviewers of modules, as well as persons involved in organisational activities. As can be seen, the list is quite long; we apologise if anyone has been left out by mistake.

At Eurostat: Jean-Marie Bolis, Daniel Defays, Wim Kloek, Jean-Marc Museux.

At Statistics Netherlands: Dirkjan Beukenhorst, Max Booleman, Bart Buelens, Astrea Camstra, Barry Coenen, Jacco Daalmans, Piet Daas, Arnout van Delden, Bram Duyx, Deirdre Giesen, Wim Hacking, Abby Israëls, Ronald Janssen, Edwin de Jonge, Paul Knottnerus, Sabine Krieg, Rob van de Laar, Mark van der Loo, Nino Mushkudiani, Peter van Nederpelt, Feysel Negash, Jeroen Pannekoek, Sander Scholtus, Marc Smeets, Ger Snijkers, Henk van de Velden, Harrie van der Ven, Piet Verbiest, Pieter Vlag, Leon Willenborg, Peter-Paul de Wolf.

At Statistics Sweden: Evalena Andersson, Lina Andersson, Marianne Ängsved, Stefan Berg, Suad Elezović, Eva Elvers, Johan Erikson, Lina Fjelkegård, Ann-Marie Flygare, Almira Hecimovic, Annica Isaksson, Annika Lindblom, Rickard Nilsson, Anders Norberg, Tiina Orusild, Fredrik Scheffer, Jörgen Svensson, Yingfu Xie.

At the Central Statistical Office of Poland: Grazyna Dehnel, Magdalena Homenko, Tomasz Józefowski, Grzegorz Grygiel, Tomasz Klimanek, Paweł Lańduch, Andrzej Młodak, Monika Natkowska, Marcin Szymkowiak.

At the Istituto Nazionale di Statistica (Italy): Cristina Casciano, Patrizia Cella, Anna Ciammola, Nicoletta Cibella, Michele D'Alò, Claudia De Vitiis, Loredana Di Consiglio, Marco Di Zio, Marcello D'Orazio, Stefano Falorsi, Andrea Fasulo, Maria Liria Ferraro, Anna Rita Giorgi, Roberto Gismondi, Ugo Guarnera, Roberto Iannaccone, Orietta Luzi, Susanna Mantegazza, Manuela Murgia, Stefania Macchia, Paolo Righi, Fabiana Rocci, Mauro Scanu, Fabrizio Solari, Tiziana Tuoto.

At Statistics Norway: Øyvind Langsrud, Magnar Lillegård, Tora Löfgren.

At the Hungarian Central Statistical Office: Csaba Ábry, Ágnes Andics, Zoltán Csereháti, Gergely Fraller, Ildikó Györki, András Herczeg, Beáta Horváth, Gergely Horváth, Miklós Juhász, Zsuzsanna Kis, Orsolya Kocsis, Ildikó Kövér, Péter Kristóf, Attila Lukács, Kornélia Mag, Beáta Nagy, László Sajtos, Katalin Szép, László Telegdi, Zoltán Vereczkei, Judit Vigh.

At the Swiss Federal Statistical Office: Daniel Assoulin, Monika Ferster, Monique Graf, Andre Hüsler, Anne Massiani, Desislava Nedyalkova, Lionel Qualité, Paul-André Salamin.

*At the Hellenic Statistical Authority (Greece):*² Adamantia Georgostathi, Ioannis Nikolaidis, Vasiliki Spiliopoulou.

We want to express our gratitude to all colleagues involved in the project.

² The Hellenic Statistical Authority was involved only in the first half of the Memobust project, from January 2011 to June 2012.

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