



How to produce a census – without asking questions

Customer focus, quality, efficiency and innovation are excellent values for any organization that aspires to be a world leader in its field of expertise. “The 560 employees at the Danish Central Statistical Office (Statistics Denmark) have taken these values to heart. They give us focus in pursuit of our mission to provide a high quality information infrastructure for society,” says Lars Thygesen, who is Director for User Services at Statistics Denmark. “Our core business is to collect vast amounts of information from businesses, individuals and the government, create knowledge from that data and then disseminate it in ways that meet the needs of the Danish population, business and international users,” says Thygesen. “Our aim is to do this in a way that is as cost-effective as possible for the taxpayer, while adapting to the changing circumstances of a dynamic society.”

There is a great deal of substance to these claims. For example, Statistics Denmark is unique among central statistics offices in covering 30 percent of its budget through sales of its services. Moreover, Statistics Denmark is a world leader in the use of administrative registers, achieving innovations that are transforming the way national statistics are collected and processed.

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Administrative registers

Statistics Denmark’s basic task is to create a model of society. The main data sources are administrative registers based on one of three numbers, which give each person, each dwelling and each enterprise a unique and universal identifier. For example, the personal identifier is used for the Central Population Register, which keeps records of every Danish citizen from birth until death, together with smaller registers for tax, social services and healthcare. “This is an advantage that the northern European countries have over many others in the process of information gathering. The key is to understand the linkages between the three sources,” says Thygesen. “The traditional method of data collection is through questionnaires and interviews, but in Denmark this is only a small fraction of the data that we collect.”

Customer Danish Central Statistical Office
 Industry Public Sector
 Business Issue Ensure customer focus, quality, efficiency and innovation in the provision of national statistics
 Solution SAS® Analytics
 Benefits A “question-free” census and provision of quality information online

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The registers provide a vast treasure trove of data, but the challenge is to manage the data and turn it into high quality, useful and coherent information while ensuring that privacy and confidentiality are safeguarded. Statistics Denmark has managed to do this and has secured a major efficiency benefit in the process: Denmark, which produced its first national census in 1769, was the first country to deliver a national census without first conducting a national survey questionnaire. “Even in a small country a questionnaire-based census costs many hundreds of millions of euros; our approach has saved this expense for the Danish taxpayer,” says Thygesen. “Such an approach will only succeed if you have the people’s trust that the information will not be misused in any way. That means ensuring that data is fully protected, and private information cannot go astray.”

Reaching the population

Building such trust also depends on proving the value of the information, and that means ensuring that the aggregated information is not only readily available but useful and interesting. Information is made freely available through a website, www.statbank.dk, which already has 50,000 registered users who can access 400 million figures, updated on a daily basis. “Users can frame queries flexibly and dynamically, which enables us to answer the maximum number of queries with low staff costs,” says Thygesen. In addition, Statistics Denmark offers a variety of value-added services such as “data shooting”. Typically, this service is used by corporate customers such as financial analysts, who can design their own reports to deliver exactly the information they require. The information is then provided in formats which enable incorporation in the customer’s own IT systems.

The technological platform

Statistics Denmark’s technology approach is determined by the overall business strategy to treat information as a corporate asset, with common concepts and definitions, common documentation, common methods and a common look and feel for the products. “We collect data from the administrative registers and other sources, clean it up and transform it using SAS before loading the output

data into statistical registers for aggregation and analysis, again using SAS,” says Thygesen. “This is the basis for Statbank as well as the information sent to international bodies such as the EU and the United Nations.

“We run SAS on all of our systems and it plays a vital role in our processes. SAS software is also central to the next round of innovation. We will use SAS Integration Technologies to support our move away from the current dependence on the mainframe, and SAS Enterprise Guide to extend our client-side analytical capabilities,” says Thygesen. Statistics Denmark will also move towards streamlining the information flow through web-enablement of data capture, for example with direct entry protected by digital signatures.

“All good decisions are based on facts, and national statistics are the basic figures on which society runs, giving a common reference point or ‘one source of the truth’,” says Thygesen. That puts an awful lot of pressure on Statistics Denmark to deliver information to the highest possible standards. “Statistics is not as exact a science as the public and the press suppose, but we must be a beacon of light in the information jungle. The economic success of a nation and democracy itself depend on the availability of high quality and accurate information,” concludes Thygesen.



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