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UTILIZING PERFORMANCE INDICATORS AT STATISTICS DENMARK

Submitted by Statistics Denmark[1]

1. Introduction:

2. For the past 4 years performance indicators have been used by Statistics Denmark as an active management tool in carrying out our activities. Utilizing performance indicators is intended to have both an internal and external aim:

- Firstly, the purpose was partly to implement the principal objectives of the institution as defined in "Strategy 96", partly to act as a management tool in the context of fulfilling the so-called departmental contracts (where specific goals are established) drawn up annually, and which constitute the operational foundation of Statistics Denmark's goal and result management.

- Secondly, it was intended to present the results of Statistics Denmark to our users, either as part of the official requirements to report or in connection with the current debate about the institution's activities.

[1] Submitted by Jan Plovsing, Director General.

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Content of the present report

3. The main emphasis of this report is placed on how and within which areas performance indicators have been put to practical uses at Statistics Denmark, and on the plans that have been drawn up for utilizing this tool in the forthcoming years. Furthermore, an inter-Nordic initiative aiming at comparing performance indicators from each central statistical office of the Nordic countries is described. Finally, previous experience gained in utilizing performance indicators is briefly outlined.

4. The attention of the present report is primarily focussed on the experience gained by Statistics Denmark in utilizing "statistics-specific" performance indicators, i.e. performance indicators which are of particular relevance to producing statistics, whereas more general indicators (e.g. resources, budget and staff) are only peripherally discussed.

5. In the context of goal and result management at Statistics Denmark, performance indicators are systematically prepared by Statistics Denmark in the following three areas:

- Results
- Activities
- Resources and staff

II. Results

6. In implementing Statistics Denmark's *"Strategy 96"* and introducing the institution's goal and result management, long-term goals have been set for the following areas until the year 2000:

- The time of publication of the statistics (the time needed for the suppliers to provide the data and the time to process this data)
- The burden imposed on trade and industry in reporting data to Statistics Denmark
- Income from service activities
- Customer satisfaction with paid statistical services
- Supply and customer satisfaction with dissemination of statistics on paper and via electronic media.

7. The annual departmental contracts drawn up between the institution's Director-General and each department/director determine, e.g. for the 5 above-mentioned key areas the results that are to be achieved by the departments over the year in question in order to meet the long-term goals.

8. In compiling management information over the past few years Statistics Denmark has particularly aimed at "systems" intended for continuous or annual registration of the extent to which the goals in the areas mentioned are realised. These "systems" are outlined briefly in the following:

II.1 The time of publication of the statistics

9. One of the areas given the highest priority in *"Strategy 96"* is the timeliness of the statistics. The usefulness of the statistics is enhanced if the statistics are published as rapidly as possible. The time of publication should therefore be as short as possible.

<u>The times of publication are measured</u>

10. To achieve a better documentation of the speed of the statistics a new system for measuring continuously the times of publication of all publishable statistics was established by Statistics Denmark in the autumn of 1995.

11. Uniform principles have been laid down for measuring the times of publication of all statistics published. The times of publication are measured as the number of calendar days from the time of the survey or from the end of the survey period until the time of publication.

<u>Targeted results</u>

12. Targeted results for the speed of the statistics have been determined. As a general rule statistics should be published as follows:

- annual statistics: within the end of the following year, at the latest, i.e. 365 days
- quarterly statistics: within the end of the following quarter, at the latest, i.e. 91 days
- monthly statistics: within 2 months, at the latest, i.e. 61 days

<u>Data supplier time, division time and printing time</u>

13. A targeted reduction of the times of publication assumes performance indicators concerning the three fundamentals of the time of publication, i.e.:

- time needed for the external data supplier
- time needed for the internal statistical division
- time of printing

14. Consequently, for every statistical product Statistics Denmark measures partly the total time of publication, partly the time needed for the external data supplier and the internal statistical division and the time of printing.

Reports, uses and results

15. Since 1995 the monthly, quarterly and annual performance indicators concerning the times of publication have been used as basis for targeted efforts to reduce the times of publication and for monitoring continuously the extent to which the goals for the times of publication in each departmental contract are being fulfilled. The statements of the times of publication are used externally in the annual report and accounts of Statistics Denmark.

16. The objective is to reduce the times of publication by 30 pct. over the period 1994-1999, and the results of our intensified efforts to achieve this goal have proved to be successful. The times of publication for monthly, quarterly and annual statistics were reduced by 23-28 pct. over the period 1994-1998. The result achieved so far for monthly statistics implies that data are, on average, available within an interval of just over one-month. Quarterly statistics are available within an interval of about 2½ months after the reference period and the time of publication, and annual statistics about 8½ months.

17. Before the year 2000, the targeted results for the times of publication, which are for monthly, quarterly and annual statistics 61, 91 and 365 days, respectively, have to be fulfilled by just over 80 pct. of all publications. In 1998, we succeeded in fulfilling this goal for 82 pct. of all publications. In 1998, the external data supplier time accounted for 61 pct. of the total time of publication used in producing the statistics.

II.2 The response burden

18. The business community's response burden must be as low as possible. Work is continuously carried out by Statistics Denmark to ease the burden on the existing statistics. Efforts to reduce the response burden is a consistent activity embracing:

- current initiatives to enhance the efficiency of the form-filling burden
- new methods of reporting data, e.g. data reported via electronic media
- reduction of the sample size
- exclusion of small units
- use of administrative sources

Goals for the burden

19. To document the results from our efforts to ease the response burden Statistics Denmark has developed a quantitative goal for the scope of the response burden, which has been estimated for the years 1996, 1997 and 1998.

20. The estimate comprises private enterprises and legal surveys. Which types of questionnaires are submitted to each enterprise are registered centrally. Furthermore, the time used by the enterprises in completing each type of questionnaire has been estimated. In estimating the time of form-filling the following "sources" are used:

- Inquiries to the relevant trade organizations
- Data from surveys, where the enterprises have indicated the time of form filling in the questionnaire.
- A report prepared by the Danish Ministry for Trade and Industry on the business community's response burden from 1996.
- Statistics Denmark's own estimates

21. Statistics Denmark has estimated the response burden by adding up the total time of form filling converted to man-years for all legal surveys.

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22. The response burden is estimated annually and appears in the series Statistical News and in the annual report and accounts of Statistics Denmark. The most detailed information on the response burden appears in the series Statistical News, including:

- The response burden measured by man-years and distributed by department, division and survey.
- Enterprises distributed according to the number of questionnaire-based surveys in which they participated over a given year.
- Enterprises distributed according to the response burden measured by hours.
- Enterprises and response burden distributed by industries.

23. This information is used internally for monitoring trends in the response burden and for setting new goals to minimise the response burden imposed on existing surveys.

24. For the period 1997-1999 the objective is to minimise the business community's response burden to a level that is, on average, 20 pct. lower than that of 1996. Information on the response burden over the period 1996-1998 shows a fall in the form-filling burden from 310 man-years in 1996 to 239 man-years in

1998, corresponding to a reduction of 23 pct. 87 pct. of the total response burden are related to EU regulations and directives.

II.3 Income from service activities

25. The special demands for data and statistical products made by specific users must be met. Service activities are therefore carried out against payment. Expanding the spectrum of individual service activities is an objective, which, in practice, is measured on the basis of total sales. In addition to customized statistical products for specific customers the individual service activities also cover, e.g. services, statistics for marketing, tasks involving external interviews and address sales from the Central Business Register.

26. When drawing up plans for the annual activities and concluding the annual departmental contracts the goals for income from service activities for each department and division are determined.

27. The objective is to increase income from service activities by 40 pct. over the years 1994-1999. In 1998 income from services totalled DKK 54.9 mio., corresponding to an increase of 32 pct. over the period. 1994-1998.

II.4 Customer satisfaction

Customer surveys

28. To ensure high-quality service activities Statistics Denmark has since the autumn of 1996 conducted surveys of customer satisfaction with paid service activities exceeding a threshold of DKK 5,000.

29. A concise questionnaire is forwarded to the customer together with the finished service activity. The questionnaire includes 7 questions relating to customer satisfaction with:

- performance of the service activity in general
- content
- personal service
- documentation of the data supplied
- time of delivery
- price

30. To the questions concerning the service activity in general, content, personal service and documentation customers are asked to indicate points ranging from 1 to 5 , where 1 is "very dissatisfied" and 5 is "very satisfied".

31. To the question concerning customer satisfaction with the delivery time of the service activity the customer is asked to indicate whether the service activity was delivered "on time", "earlier" or "after the agreed delivery time"

32. To the question concerning customer satisfaction with the price the customer is asked to indicate whether the price for the service activity in relation to the content of the activity is considered "reasonable", "a little too expensive" or "far too expensive".

33. The questionnaire is forwarded to our customers when the finished service activity is delivered. Furthermore, the questionnaire is forwarded once annually to all subscribers to an annual subscription of DKK 5,000 and over. No reminders are mailed. In 1997 and 1998 the response rates were 42.3 and and 48.0, respectively.

Reports, uses and results

34. The quarterly and annual statements are presented to Statistics Denmark's management, all heads of statistical division and all other employees. It is the responsibility of each division to follow up specific criticism of service activities carried out by the division. At the same time, Statistics Denmark has established internal user service committees in each statistical department and an intersectoral marketing committee responsible for following up the general criticism voiced in the customer surveys. Finally, the results from the customer satisfaction surveys are closely examined by Statistics Denmark's management in connection with the annual departmental contracts.

35. The annual results from the customer surveys appear in an article in *"News and Information"* mailed to all respondents having returned their questionnaire. The newsletter "*News and Information"* is also forwarded to a broad group of customers and users, including the central government administration, municipalities, counties and all private service customers. Finally, the results also appear in the annual report and accounts of Statistics Denmark.

36. For every year during the period 1996-1998 customer satisfaction with performance of the service activities has constantly ranged around an average of 4.1. This implies that Statistics Denmark's objective of customer satisfaction with paid service activities to range above the average figure for government institutions, which is continuously measured by the Ministry of Finance, is thus fulfilled.

II.5 Dissemination

37. Efficient and user-oriented dissemination is an essential requirement in Statistics Denmark's *"Strategy 1996".* Dissemination of information requires that

statistics are easily accessible and takes into account that the users have different uses, and that the dissemination of statistics takes full advantage of modern technology, whether statistics are published on paper or electronically.

38. Statistics Denmark has set long-term goals for the supply of statistics and for customer interest in dissemination of statistics on paper and electronically, and annual sub-goals are also set in this respect. The long-term goals for the period 1994-1999 and thereby the need for performance indicators concern:

Dissemination of statistics on paper:
- Supply: number of publications issued to be increased by 13 pct.
- Customer interest: income from sales of publications to be increased by 20 pct.

Electronic dissemination:
- Supply: figures and time series in data banks to be increased by 150 pct.
- Customer interest: income from sales of electronic data from data banks to be increased by 40 pct.

39. Over the period 1994-1998 both the supply of and customer interest in statistics disseminated via paper - measured on the basis of sales of publications - increased by 19 pct. However, it is assumed that the possibilities of a continual growth in customer interest in dissemination of statistics via paper will be reduced, concurrently with Statistics Denmark enhancing the supply and improving the availability of statistics disseminated via electronic media.

40. Since 1994 the supply of statistics disseminated via electronic media - measured on the basis of time series in Statistics Denmark's data banks - has trebled, and customer interest - measured on the basis of electronic sales - has increased by 35 pct. There has been a continual, almost, explosive growth in the dissemination of statistics via the Internet - measured by "volume of traffic on Statistics Denmark's web site" - as the number of visits reached 15,600, 77,2000 and 177,000, respectively, over the years 1996 to 1998.

II.6 Other

41. Furthermore, goals have so far been set and performance indicators have been prepared concerning media coverage (measured by column metres) and the volume of Internet traffic.

42. Finally, conducting a major user survey in 1997 made it possible for Statistics Denmark to collect more differentiated information on user

satisfaction with dissemination of statistics. Attention was focussed on the different user groups' views about the statistical products made available today, and their needs for statistical information in the years to come.

43. More and more statistics have now been made available on Statistics Denmark's web site, and detailed performance indicators concerning electronic dissemination of information can now gradually be prepared, including the most frequently used types of product and which customer categories make use of these statistical products.

II. Activities

44. Changes in some of Statistics Denmark's activities are compiled continuously or annually, including:

- Number of publications issued and distributed by frequency (monthly, quarterly and annual statistics) type of publication (News releases, Statistical News, Annual publications, etc.) and by department and division.

- Number of pages printed and distributed by department, division and type of publication.

- Number of time series and figures in Statistics Denmark's data banks.

- Number of incoming and outgoing telephone calls and number of e-mails distributed by department and division.

- Number of international days of travelling distributed by department and division.

- Number of tables reported to international organizations by Statistics Denmark.

- Number of EU legal acts on statistics distributed by department and division affected by the acts

- List of which statistical topics are affected by the EU legal acts.

45. The aim is, as far as possible, to provide a complete description of the level of activity in the statistics production and dissemination. At the moment, the information is primarily used for external reporting in the institution's finance and budget statement and in the annual report and accounts of Statistics Denmark. The annual report and accounts of Statistics Denmark require, e.g.

information on productivity changes in core activities carried out by government institutions. Statistics Denmark is continuously considering how to provide a complete picture of the level of activity in the statistics production for use in statistics of productivity. Quantifying many of the institution's most significant statistical and dissemination activities as well as activities of development and diversion for use in estimates of productivity is difficult.

IV. Resources and staff

46. Statements of budgeted, used resources and manpower are continuously prepared for the entire institution, every statistical department, every statistical division or every statistical topic. The statements comprise:

- Quarterly budget statements and monthly statements of revenue at institutional level for use in the principal follow-up on the budget estimates.

- Monthly statements intended for monitoring the extent to which budgets and revenue goals for every department have been realised.

- Quarterly statements of income from service activities, sales of publications and subsidized work distributed by customer categories.

- Monthly statements of the number of working hours used and distributed by department, division and statistical topic.

- Annual statements of the consumption of resources distributed by the institution's some 60 statistical topics and measured on the basis of the number of man-years used. The statements are used both internally in the annual planning of work programmes and externally in the annual report and accounts of Statistics Denmark.

- Monthly statements of manpower at the beginning of the month distributed by staff group, contract of employment and working hours.

- Quarterly statistics of absence due to sickness, containing detailed information on the number of days and periods of sickness distributed by sex, department and division. This information is used internally in following up the departmental contracts, comprising goals for a gradual reduction of absence due to sickness and externally in the annual report and accounts of Statistics Denmark.

- Annual statistics of manpower and sex equality, including detailed information on the institution's staff distributed by department, sex, age, staff group, number of hours employed and absence due to sickness. To this is added a range of information on job notices and job applications, paid overtime work, local pay, etc.

47. The different items of information have so far been prepared in "separate" working routines and the preparation is comparatively cost-consuming for several statements. At present, work is in progress on implementing a new computer system designed for staff administration, which will facilitate registration and future extracts of staff data in some areas.

V. Plans for new items of information

48. A comprehensive development project was initiated in 1997 by Statistics Denmark, which implied that by the end of 1998 summary methodologies for each statistical product had been prepared. The summary methodologies are published on the Internet (www.dst.dk - at the moment available in Danish only). From 1999 the summary methodologies will form the basis for an annual quality survey of the quality of the statistical products. The quality survey will focus on the quality of the statistical products in a broad sense, including:

- content
- time of publication
- reliability and uncertainty
- comparability over time
- comparability with other statistical products
- availability
- documentation
- range of uses

49. The survey is conducted as a questionnaire-based survey, where the persons responsible for the statistical products of each division will evaluate developments in the quality of each statistical product in relation to the actual changes made to the products.

50. All statistics produced by Statistics Denmark are covered by the quality survey, including both statistics published on paper and accessible through data banks, research databases, economic models, standardized finance systems and other permanent service products.

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51. It is intended annually to conduct a quality survey of Statistics Denmark's products. The results will be compiled for the entire institution and for every department and division. For the purpose of being able to make proposals for general or specific initiatives to improve developments in the quality of our products the quality survey will be discussed in an internal reference group.

The report is subsequently discussed by Statistics Denmark's management and by each division.

VI. Comparability among the Nordic countries

52. At the meeting of the heads of the central statistical offices of the Nordic countries in August 1998 it was decided to set up a working group concerning *general information on the central statistical offices of the Nordic countries.*

53. Updated material on general conditions concerning the central statistical offices of the Nordic countries and their activities may constitute an important source of inspiration in the Nordic statistical co-operation. During the 1990s, a frequent theme at several of the meetings of the heads of the central statistical offices of the Nordic countries was data comparability among the Nordic countries, and a recent report was prepared by a Nordic committee on *"Rationalisering og kostnadeffektivisering i de nordiske sentral-byråer"(Rationalization and cost-effectiveness in the central statistical offices of the Nordic countries)* (see, Nordic series no. 65)*.*

54. The aim of the new working group is to put forward proposals for tables and summaries, etc. which can be continuously updated and thus form the basis of inter-Nordic comparability and exchange of experience among the central statistical offices of the Nordic countries.

- organization
- finances
- staff,
- technology
- scope of tasks
- expert results

55. The information will primarily have to be based on already existing reports in the Nordic countries. Furthermore, the working group will select one or two statistical areas where the use of limited resources will make it possible to conduct comparative surveys.

56. So far, the working group has held one meeting and is scheduled to conclude its work at the middle of May 1999. The working group will present a report for discussion at the next meeting of the heads of the central statistical offices of the Nordic countries in August 1999.

VII. Experience of utilizing performance indicators

Positive experience...

57. The way in which performance indicators are specifically used in the current management of Statistics Denmark's activities has been described above. It is also sporadically indicated how the utilization of these indicators is incorporated as a central element in the institution's strategy for goal and result management and is instrumental in targeting and enhancing the efficiency of the institution's efforts in relation to some of the selected areas for which specific goals are to be achieved.

58. In focussing systematically attention on a range of selected areas over some years, the experience gained so far seems to indicate that it has been possible to make an impact on the institution's pattern of conduct in accordance with the principal goals that have been determined. In this context, using performance indicators has served as a tool in presenting internally the achieved results and thereby ensure that the achievement of a number of selected goals is considered to be an important criterion of success. It is a general feeling at Statistics Denmark that the use of performance indicators has made a positive contribution to e.g.:

- reducing the times of publication,
- reducing the response burden,
- improving customer satisfaction,
- increasing income from service activities

59. In addition to making positive contributions as a management tool in the *internal* efforts to fulfil the institution's objectives, the use of performance indicators has also been instrumental in managing the institution's *external* relations. To be able to document the results that have been achieved is of great importance in the current dialogue with users, data suppliers and politicians. Danish experience of the past few years, which embraces a periodic political debate about the way in which the institution operates, has highlighted the importance of being able to reject assumptions of, e.g. an increase in the response burden, slow times of publication, etc. Consequently, an important external policy-aspect is also associated with utilizing performance indicators.

...but also certain unintended side effects

60. In conducting an overall assessment of Statistics Denmark's experience of utilizing performance indicators it should, however, be mentioned that there are also certain unintended side effects inherent in utilizing this tool.

61. Firstly, the announcement and implementation of goal and result management - including the introduction of performance indicators - caused a certain degree of scepticism among Statistics Denmark's employees. Consequently, it was - and still is - important to endeavour to include all employees in determining/accepting the selected goals.

62. Secondly, Danish experience also linked to utilizing performance indicators has shown that setting goals should be restricted to some few central goals, or else problems in prioritising the goals can easily occur, and maintaining focus on the selected indicators may prove to be difficult.

63. Similarly, Danish experience seems to indicate that it is essential to set some few selected goals which are central and cover the institution's activities, as one consequence of goal management is that the attention of the institution is fixed or shifted towards these specific goals. A result of this is that other areas not subjected to goal management are given lower priority.

64. Thirdly, experience also shows that one should be selective in choosing and determining performance indicators. It is thus important that one does not tend to choose indicators for the only reason that they are easily measurable, instead of choosing indicators difficult to compile, but which, on the other hand, reflect what one 's wants to measure.

65. However, bearing the latter warnings in mind it is still our main conclusion that Statistics Denmark has benefited from utilizing performance indicators as part of the institution's principal strategy for goal and result management. Consequently, Statistics Denmark will in the forthcoming years be among the central statistical offices using performance indicators as an active management tool in carrying out the institution's activities, although there will still be a need for adjusting and fine-tuning one's use of the tool.

"*It is not a question of rushing blindly towards one's goal but using one's eyes to find the right route.*"
Werner von Siemens