

# The New Radio Situation and It's Implications for Research

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During the last few years the situation of radio in Sweden has dramatically changed, with the introduction of private commercial radio in 1993 (in addition to public service radio that was established in 1925). This change has, to a great extent, also exerted an influence on radio research, as regards its quantity, its focus and how it is used. My paper consists of some reflections mainly applicable to the so-called quantitative inquiries, i.e., various kinds of audience surveys, etc. The methodological and practical problems which characterize the situation of radio research are, in fact, only special cases of a more general complex of problems valid for inquiries as a whole. The problems are, however, particularly obvious for radio just now, as a consequence of the rapid development of competition – a great number of radio frequencies have been sold in a short time with extremely few regulations for broadcasting – at the same time as the use of information technology is exploding. Moreover, the problems have to do with the fact that radio production is decentralized and much cheaper per hour than TV production. Consequently, individual radio channels and stations have substantially less economic resources for inquiries.

Gilljam describes four phases in the history of survey research, the last of which –

the legitimacy – has particular relevance in our time. By legitimacy he means "among other things, in whose interest all different measurements are made and to what extent democracy is restricted owing to all opinion surveys and results of the studies" (Gilljam 1995, p 7). This crisis of legitimacy is, thus, a general problem, and my paper will in many respects treat survey research as a whole. Without laying claim to a comprehensive account, I would like to put forward some thoughts and examples in this context.

According to an estimate, the nine biggest companies of market and opinion research in Sweden turned over 550 million SEK in 1994; the whole industry was estimated to have a yearly turn over of 800 million. These figures are expected to double within the next few years (Weibull 1995). One explanation of the speedy growth of the industry of inquiries is, without doubt, the increasing demand for market investigations, which in the case of the media is justified by the great changes that take place primarily within television and radio, but also increasingly with the Internet. In addition to that, the processor of the personal computer is becoming ever quicker, cheaper and easier to handle. Several advanced statistical packages, as well as more simple programmes for calculation and

analysis, exist on the market and are becoming more and more popular and utilized. All material components of a survey are, accordingly, within everyone's reach. Data recording and presentation of various sorts of information into tables or graphic formats is something that many people deal with in connection with their work or private affairs; some do it as a hobby, too. Neither do most people believe that the task of formulating questions is especially difficult, as we all have answered a vast number of various questionnaires. If a sample questionnaire is available to begin with, the procedure is further facilitated. The only thing needed for the research process to start appears to be the money for current expenses, principally regarding the time required for interviewing or sending questionnaires to the sample one intends to study, as well as registering the answers into the computer and running the results.

Here, then, the client comes into it, and to get hold of clients is maybe the most difficult problem to solve on the way to a successful research enterprise. Being educated in or having other experience of social sciences or statistics is an advantage, and so is a background in sales or at least a talent for selling, which sometimes can be even more useful than expert knowledge in the area. Still, perhaps the most certain asset is being in some way or the other related to strong economic interests, where research is associated to the business in question.

The above outlined picture may seem somewhat exaggerated and its degree of truthfulness may be questioned. An interesting research project would be to study the competence of various research companies, both the small, more insignificant ones which emerge at short intervals, and the well-established, "professional" ones.

Such a project is and will remain impossible to carry through in the near future, however, among other things because of the confidential character of the research activities. The secrecy in itself is a matter that is worth closer examination – how is it justified, on the one hand, and what does it lead to on the other?

A few other questions, which might be answered more quickly, are:

- 1) How large a share of the total yearly budget for quantitative inquiries (800 millions SEK) is made up of projects that are pursued within the universities? Public statistics probably exist, and it is only a matter of updating and specifying them.
- 2) How many of the remaining projects are well enough known to the universities so that one can be sure that the inquiries in question fulfil fundamental scientific criteria?
- 3) Have the fundamental criteria of evaluating the quality of an inquiry, which were considered as adopted a couple of decades ago, maybe loosened up? Do the university researchers, the research companies and the clients today agree on the basic quality criteria? Are there mechanisms developed in society that guarantee that the companies operating in the area live up to such requirements?

The mere terminology often used, also in the university world, to divide the research methods into two central classes – quantitative and qualitative – is confusing. One becomes almost automatically indoctrinated to believe that quantitative research – as an opposite of, or at least a complement to, the qualitative one – does not require quality. The last remark is no overstatement. I have repeatedly heard this idea

from media researchers who devote themselves only to so-called qualitative studies and are frightened of figures and statistics, of whatever kind they may be. Here an objection could be made that this confusion and sometimes even contempt for quantitative methods is based on an unconscious desire to ignore an activity which one does not really understand and otherwise cannot use to assert oneself.

Another explanation of the prevailing terminology could be that the aim of quantitative studies is to measure quantity, e.g. such measures as distribution, reach and shares of the media, whereas qualitative methods aim at aspects that have to do with the quality of the media and media contents. The purpose of many of the large-scale so-called quantitative data collections is, however, precisely to study quality in media use and media contents. Several such comprehensive studies – worked up, analyzed and presented with sheer statistical methods – have been made during the last years, for example at the Swedish Broadcasting Corporation (SR). Also, in the daily audience ratings at the former Audience and Programme Research Department at SR (SR/PUB) respondents were always asked to value the TV-programmes they had watched the day before. Findahl gives examples of similar "measurements of quality" complementary to people meters in Great Britain and the Netherlands (Findahl 1995).

In my experience, some customers and/or users of the results of inquiries are convinced that there is no pertinent way of evaluating the quality of a quantitative study. To acquaint themselves with, order, or even carry through inquiries often makes up a substantial part of their tasks. Many of them do not understand the theoretical and practical problems related to inquiries, however, and even admit it. The compli-

cated problems of sampling, drop-out rate, the consequences of formulating questions in one way or the other, as well as other methodological issues that are directly associated with the quality of such studies, become, then, too laborious. One neither has time nor motivation for familiarizing oneself with such intricate reasoning. Often a working knowledge of statistics is necessary, too. Profound analyses of all kinds are in some circles usually designated by the unifying concept of "Research" (in Swedish: forskning) which to many busy people in leading positions within media companies means something knotty, that takes a lot of time. Audience surveys are needed, of course, but of a kind that is speedy, practical and useful to the activity.

A good study shall consist of one, at the most two pages, according to a practitioner who owns a private radio station in the USA and who says he regularly uses in-house research. In such studies usually 120-130 persons chosen from a sample of telephone numbers are questioned; the reason for doing so large data collections is to statistically secure the respondents' answers. As a rule, the results are divided into three-four subgroups – at least 30-40 persons per group is regarded as a necessary number for reliable results (Beaubien 1995).

The notions of "useful" and "scientific" in contexts like these function as opposites of each other. It is thus understandable why some media practitioners even dissociate themselves from quantitative inquiries as a relevant instrument of gaining insight into one area of social life or the other.

Nevertheless, inquiries are powerful in modern society. Within the media they are frequently used as the basis for selling advertisements, various kinds of annual re-

ports, programme policy, and changing, re-scheduling or cancelling TV and radio programmes, etc.

”It is as expected” is an often heard expression, when results of an inquiry are presented. There is something enchanting with the fact that the results are in accordance with some experience of the receiver which he or she likes referring to and which therefore further legitimizes the research results. Another study may be presented afterwards and point at contrary tendencies, that also seem plausible as they can be justified by other experiences. One can dispute about everything endlessly, place oneself at an arbitrary starting-point and with only formal logic arrive at any result. This philosophical logic exists also in the world of inquiries, where, however, there is no need of formulating premises or of consistently following certain logical rules. Instead, the results are justified by the circumstance that some selected persons have given their opinion on a certain state of things. The additional fact that one is backed up by personal experiences which correspond with the results further legitimizes the use of inquiries as bases of decisions. ”The results are as I expected” should more concretely be stated ”That is what I already knew”, i.e., I have acted properly up to now and the decisions I am going to take will also be right and objective. Penetrating deeper into the statistical material becomes, then, not only unnecessary, but also mere loss of time. A skilful supplier of research results must understand and comply with this logic and confine the report, and also the analysis of the material, only to the most essential figures and conclusions.

It is especially convenient that reality may differ from the results of the inquiry due to the statistical probability (cp. sampling error, level of significance, etc.). Be-

sides, it is in most cases not possible to prove that the application of a research result contributes to success or failure. The advanced mathematical models which often underlie, and are used for analysis of some inquiries, the many social theories which often refer to similar quantitative studies, the unclear, partially incomprehensible debates on methodological issues – all indicate to scientific seriousness that is ascribed to survey research per definition.

In that way surveys are a component of the decision processes and the role of being responsible for the research activity of a big (media) company can be desirable. Much time and financial resources are invested there, among other things to pay the research firms. To have the research results in hand means in some sense power.

Let us return to the question on quality of inquiries. How is it measured?

Different research companies often show figures of different sizes, e.g. as regards viewing or listening time. An easy way of solving this problem becomes to state that it is a question of ”different methods”.

On the other hand, a rather strong argument by which many investigators maintain the quality of their works, is that one or several results are in accordance with results treating the same phenomena in other studies. The fact that Nielsen’s ratings by people meters tallied relatively well totally seen with those by telephone interviews of the former PUB during two control weeks in the Spring of 1993, has been considered to imply that the new panel results are legitimate followers of the ratings of PUB. That control also functioned as a kind of quality stamp for the subsequent Nielsen results which rapidly begun to show higher viewing figures mainly for TV4 (a commercial, independent, national public service TV-channel launched in the beginning

of the 1990s), while the viewing time of Swedish Television (the original national public service network) remained the same despite the growing competition (Nordström 1995, Sveriges Television 1995). This remark should not be perceived as a criticism of Nielsen's measurement system, which in itself can be a rich source of data for strategic analyses. I do not have the necessary prerequisites – access to data bases, detailed knowledge about weighting procedures, etc. – to judge the quality of these ratings. What I mean is that the results of people meters cannot be regarded as a comparable continuation of SR/PUBs audience measures. The two methods describe the TV habits of completely different populations. The mere circumstance that the majority of the inhabitants cannot even conceive of having people meters at home deprives the method of all claim to represent the TV habits of the whole population. Various sorts of weighting and/or of allocating panellists by quotas according to gender, age, TV consumption (the amount of time one usually watches television), etc., cannot compensate for those persons who refuse to take part in the panel and who in certain respects even may reinforce the distorting effect of the non-response, to the extent that non-response in this case can be talked about in a proper sense. Moreover and above all, the two research methods are performed in different ways and are characterized by different types of errors.

The difficulties of comparing results generated by different methods exist to the same degree, if not higher, for radio. "Major changes in ... radio listening can follow what might appear to be quite minor changes in research practice" (Menneer 1995).

Which method, then, is best? "The best method is not the one which is based on

the most advanced technical equipment or on the highest precision of questioning and sampling, but the one which shows favourable results for the most important clients within the branch and at the same time can be accepted by all parties involved." This definition was given by a head of a major international research company during a conference that dealt with the need of establishing a standard for TV and radio measurements in Europe. Even if the phrase was not worded from the podium, but in a non-official discussion, it well depicts an important side of the crisis of legitimacy by which a greater and greater part of the inquiries are characterized. An initial clue when judging the relevance of a measure becomes, in that case, to find out who is paying for the research activity. Then one can, of course, go on and try to understand how the results are used – in various kinds of accounts, strategic analyses of the audience figures etc – for example, how commercial media are using market shares in relation to advertisers or in order to advertise themselves as the biggest and best media (which also is one method to keep or even increase the market shares). Such aspects are important and are sometimes used by research companies and their clients in the debate about whose method is best. Even if these aspects are essential to take into consideration, they are, of course, not sufficient.

In several articles Weibull discusses the so-called 'heaping measures', i.e. the circumstance that the "professional" research companies under pressure of different interested parties show higher and higher results on media use (Gustafsson & Weibull 1992, Weibull 1995). However, he does not analyse the reason why or the consequences for the reliability of the inquiries and possible misuse of them. Instead, he

only states "that the problem hardly is that various measurements would be unreliable but that they are used for something they were not meant to measure" (Weibull 95, p 19). The cause of "the heaping measures" and their consequences for the quality of media measurements ought, however, to be a central subject of the debate, in the light of the ever greater role the inquiries play in the democratic process.

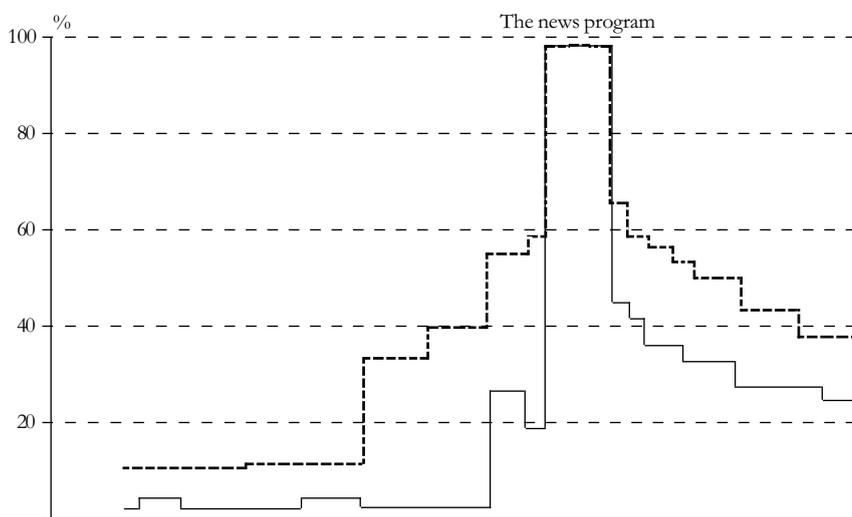
Paradoxically enough, it is relatively easy to concretize criteria of quality and evaluate the inquiries in relation to them, as the quantitative studies are based on various statistical methods, and the data bases are available for computer analysis. This makes possible comparative studies of the advantages and drawbacks of various methods, such as they are concretely reflected in the structures of the data bases – a type of quality control that is essential and ought, by routine, to compose a part of the analyses of media measurements. For example: How often and how

exactly are peoples breaks in media use registered in audience surveys? This aspect of quality exerts strong influence on the average amount of time devoted to the media, and partly also their market shares. In figure 1 one can follow how the audience of a news programme uses the channel before and after the news, registered in two different measurements performed on two occasions. Does the divergence between the two curves show a change in audience size due to different time periods or to different methods?

A detailed analysis of all relevant factors in this connection would be long and beyond the scope of the present article. Here I would only like to mention some other significant aspects of the design and accomplishment of inquiries that can be of decisive importance to reliability and validity, and which routinely should be subjected to quality control.

In those cases where inquiries are carried out by means of telephone interviews,

Figure 1. How the Audience of a News Programme Uses the Same Channel Before and After the Emission – Registered in Two Different Measurements Performed on Two Occasions (per cent)



it is essential that the results are not influenced by "the human factor", i.e., the interviewers must proceed in exactly the same manner. The realization of this is connected to continuous work with the interviewers and regular quality analyses as follow-ups, which require a lot of time and must be done systematically by experienced supervisors. Those who scrutinize a data base can sometimes find big and consistent variations between the results registered by different interviewers. How many clients are aware of the existence of such bias? And how many researchers have in detail, or at all, analyzed such aspects of the data bases of SIFO, TEMO, Nielsen<sup>1</sup> and other research institutes?

The drop-out rate is another factor of great importance to the relevance of inquiries. Several circumstances play a role for how many per cent of the original sample one manages to reach. In the case of inquiries based on telephone interviews with samples from the census register and the like, it is, among other things, urgent to get hold of the sampled persons' telephone numbers when the subscribers are not found in the directory enquiry service, i.e., one must often turn to sources like the social insurance office, place of work, neighbours, write a letter to the respondent, and so on. To find telephone numbers in these ways requires a lot of time and raises the cost of the survey. Another circumstance is that many persons are difficult to reach with only a few attempts of contact – most research institutes restrict themselves to three-four attempts and only during certain times of the day, mainly in the evenings and week-ends (cp. the routines of the institute of SIFO, Sjöström 1994).

The daily audience ratings of SR/PUB provide an important reference in many respects, not least because of their low non-

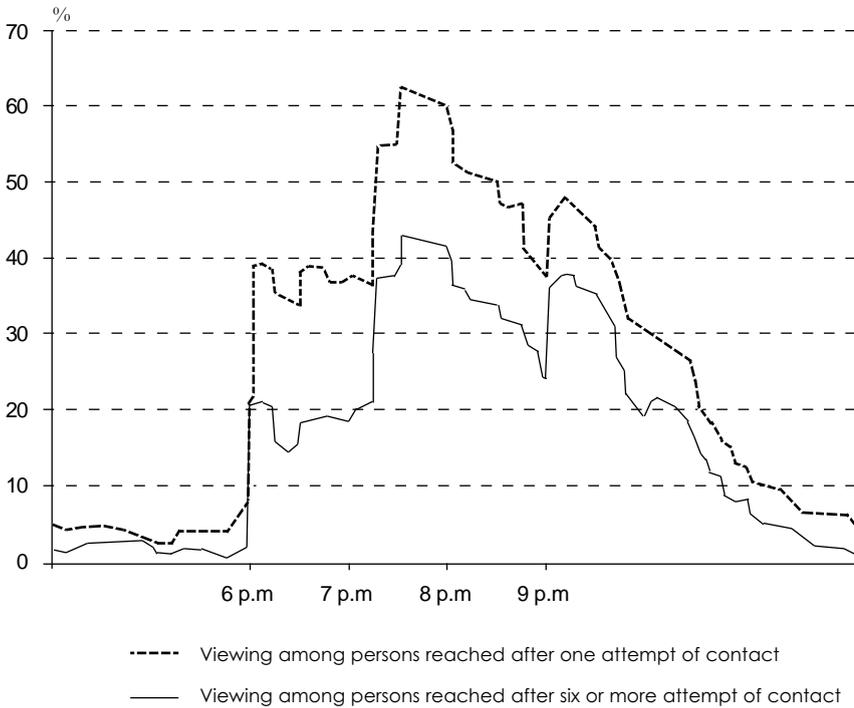
response, which was less than 20 per cent of the net sample (i.e., when the deceased, emigrants, seriously ill, and individuals with no understanding of Swedish were excluded):

- Practically all telephone numbers of the sampled persons were spotted (that is to say, also almost all of the ca 20 per cent that are not to be found in the directory enquiry service).
- The interviews were done during the whole day and, of course, in the evening. For instance, more than half of the interviews were accomplished on workdays before 5 p.m., the moment when many institutes start their interviewing.
- An essential part of the interviews were done after repeated attempts of contact. For 8-9 per cent of the net sample ten or more attempts were made. 14 per cent of the net sample were interviewed after at least five attempts, and only 60 per cent after one-three attempts of contact.

Viewing and listening habits were also found to vary in a number of respects, depending on how difficult it was to reach the persons. A few examples: As expected, persons difficult to reach generally watch less television, above all during daytime and early in the evening – the differences fluctuate for different segments of the population (see figure 2 valid for one age group). When it comes to radio, no major differences appear regarding amount of listening time. Instead, persons more difficult to reach usually listen considerably more at other places than at home, compared to those reached in one-three attempts.

Thorough analyses and follow-ups of the non-response are significant for correct interpretation of the research results. To

Figure 2. The Viewing Audience (55-59 years olds) Evenings, Mo-Thu, SR/PUB, Sep 1992-May 1993 (per cent)



what extent do the various research companies make such detailed analyses and how much are the customers told about it?

Sampling is another momentous factor for the relevance of inquiries. Is it possible, for example, to make a representative sample of the population by weighing together or allocating by quotas a sample of telephone numbers? More and more research institutes use this method, as it is said to be cheap. Some also consider it even more reliable than random samples of the census register, among other things because persons with secret telephone numbers and the like cannot be reached in the census case (cf. however, the above-mentioned ways of tracking persons in simple random census samples used by SR/PUB). "Those

who still utilize the samples of statistical probability have not kept up with the technical and methodical development that has been rapid and very far-going" (Sjöström 1994). "Substituting and replacing are nowadays standard procedures applied all over the world" (Berg & Sjöström 1994). In the last-mentioned article the authors argue that these techniques are described and analyzed in statistical specialist literature. The circumstance that weighting and allocating quotas according to certain variables can be practised in some cases does not mean that these procedures can be used mechanically. It is a fact that samples of telephone numbers, even given randomizing both phone numbers and household members, give rise to skewed distribu-

tions among the interviewees with respect to, among other things, age. Elderly people are heavily overrepresented, while the situation is the opposite for young people. When sampling telephone numbers of households, it is also necessary to weight for the persons' known probability to be included in the sample, i.e. according to the actual number of members in the household. Such a weighting corrects, however, the skew distribution of age only in part.

As far as age and size of household correlate with the phenomenon that is the object of the study, one has, consequently, in order to get results representative at least in relation to these variables, to correct this bias by giving the persons weights continuously in accordance with the official household statistics for every age group. (The correlation between age and number of persons in the household is not linear, especially not in younger age groups.)

However, these weighting procedure reduces the number of observations considerably, as the weights must also be adjusted in such a way that the number of studied persons does not become misleading when calculating the probability of random errors. This reduction from sampled to weighted persons becomes especially sharp, if the inquiry deals with persons within a broad age interval. The weighted number of (effective) observations is, thus, smaller than the actual number of persons interviewed, something which – contrary to belief – makes samples of telephone numbers more expensive than samples from the census register – of course, if the material is to be of high quality.

A qualified weighting or allocating by quotas can only be done in connection with large data collections and on the condition that correct and detailed population statistics are available.

Age and size of household are, however, only two variables that may exert influence on the results. Sometimes other variables affect the outcome of the observed phenomenon. Such variables, too, might be skewly distributed in a sample of telephone numbers, independently of age and household. Allocating quotas or weighting according to other variables is often impossible, as reliable reference statistics are lacking. Besides, in most cases one does not know which variables are most strongly related to the phenomenon of interest – as the answer to this usually is the goal of the study.

The methodological examples mentioned above are central and associated with the quality of the data collections. Erroneous interpretation and practical use of research results due to faulty analyses is another major source of error, which is more difficult to systematize.

How much dismissing one or another quality criterion really affects the results varies in each specific case, depending on the subject and the aim of the inquiry. Often, however, several quality aspects are discarded simultaneously.

How, then, shall an uninitiated person who wants to order an inquiry behave in the ever denser jungle of bigger and smaller research enterprises, each of which has its own method of sampling, design, questioning, analysis etc. – the advantages and disadvantages of which the investigator may not necessarily be aware of?

Inquiries in themselves probably do not constitute a risk to the democratic process as a whole. But the chaos that is prevailing in the branch of media and opinion research contributes to a crisis of legitimacy, and misuse of the inquiries can lead to confusion, impoverishment of certain social structures and even (temporarily) to an

undemocratic development in certain areas. In such cases the inquiries can be regarded as a means of maintaining or reinforcing power positions.

Therefore, it is important that well-functioning mechanisms are further developed, which guarantee the quality of inquiries and make them the valuable source of knowledge they are meant to be. How such mechanisms should be worked out is

a question that more and more should figure in the debate about the inquiries. The universities should also have a leading position in this context, bearing in mind that research methodology rests on a scientific base. Not taking a firm stand on the quality of the rapidly increasing inquiries is equivalent to promoting disinformation in society.

## Notes

1. Some of the biggest survey research companies in Sweden

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