

The Online Survey in Japan: An Evaluation of Emerging Methodologies

Noboru Ohsumi

The Institute of Statistical Mathematics

4-6-7 Minami-Azabu, Minato-ku

Tokyo 106-8569, Japan

ohsumi@ism.ac.jp

Osamu Yoshimura

Okayama University

3-1-1 Tsushima-Naka

Okayama-shi 700-8530, Japan

osamu@cc.okayama-u.ac.jp

1. Background and objective of the study

Electronic surveys have been the most obvious and most promising developments among the many changes occurring in survey environments. In our research during a few years, we encountered many changes in this field with both positive and negative characteristics. Our research has had two main purposes. Firstly, we have sought to clarify in the light of practical methodology what social and legal problems are involved in new survey methods, namely, *Web* or *Internet surveys*. Secondly, we have attempted a systematic study of the relationships that exist between conventional approaches and the more recent survey methods. This study has dealt with such aspects as design of a sample survey, including sampling methods, the construction of questionnaire sheets on Web pages, and actual survey procedures. Web surveys are widely used today, especially in the field of market research, and various attempts have been made by others engaged in survey research to find replacements for conventional interviewing, mailing and Omnibus surveys. In addition, in business and applied sciences, including market research into consumer behaviour, electronic surveys that make use of e-mail, WWW home pages, and Web databases have been widely adopted.

2. Outline of the electronic survey

The greatest problem on the electronic surveys in Japan is that they are going ahead of the studies on the survey methods in electronic environments or the prevalence of them among practical areas, although the computer is gaining popularity as fast as in the U.S.A.

On the other hand, in the U.S.A., the electronic surveys seem to have appeared through several stages of development successively, by solving various problems of CAPI (in the late sixties), CATI (in the early seventies), or the related electronic surveys making improvements of them and repeating substantial studies of them.

In Japan, however, main focus has been concentrated on technical use of computers and networks, and thus, there is a great gap in thoughts about the concept of the electronic survey or about the Internet on which the surveys are actually conducted. In Japan Web surveys have become abruptly popular without enough discussions on ‘what the Web survey is’ or ‘how the survey should be conducted.’ As a result, not only those who are not specialized in research field but only familiar to the use of the Internet, but also corporations, have participated in the area, to bring about the present messed-up situation where scientific research is confused with mere collection or retrieve of information— not a survey but only a search.

Taking into consideration things described above, we will be able to summarize the electronic survey in general as a framework that has characteristics indicated below:

- (1) Systematic research with the aid of the computer in collecting data.
- (2) Research conditioned by the use of computer networks.
- (3) Research in which 'electronic connection' defines the relationship between survey researchers (operational bodies) and respondents (including organizations). That is, a style of research taking in 'machine-to-machine' relation as well as 'man-to-man' (or 'face-to-face') relation.
- (4) A research to be taken as what is called 'Web survey,' which makes use of the Internet as well as WWW software's such as browsers and protocols.

Thus, the 'electronic survey' is defined as a type of research that is conducted in Internet environments on the basis of electronic exchange of information between the interested parties that are connected by network, replacing P & P (Paper and Pencil), face-to-face interviewing surveys, and a mailed paper questionnaires, and so on.

To repeat the point, in Japan, Web surveys appeared on the Net overleaping the necessary intermediate procedures, while in Western nations, especially in the U.S.A., Web surveys have become popular through various stages of substantial studies as are mentioned above (1) – (4). In this point, we can find the main cause of the distortion the present situation in Japan is facing.

On the background of the present situation, there is a fact that an ordinary style of surveys based upon standard sampling plans have long been in practice in Japan, but recently, it is getting harder and harder to maintain the style of traditional research dependent on the specificity of our research environment due to the FOIA (the Freedom of Information Act), limits to using the Residents' List, and the deterioration of the research environments, etc. This fact also pushed the spread of Web surveys.

3. Present state of online surveys in Japan

In recent few years, we can have seen a remarkable change in the environment of Web surveys. In Japan, there were many participants in the scientific seminars and researchers' meetings, as well as in the institutional symposium that we organized. It is worth noting that many researchers and business people, especially those engaged in market research, showed great interest in these seminars and symposiums. However, no clear definition yet exists of an 'online survey' or 'electronic survey' in practical use, despite intensive discussion on the matter. Unfortunately, however, there are inflated expectations and much confused thinking about the nature of such surveys. Therefore, we have focused our research on the nature of the survey environments in which such electronic survey methods as the so-called *Web surveys* or *Internet surveys* are conducted. We have paid special attention to examination of the applicability and usability of those survey methods through the data gathered from our fieldwork as described later. We have also tried to track and analyze many survey procedures, including actual survey design, as comprehensively as possible. We have done this by comparison with related or earlier surveys as well as by group discussion and analysis of various research reports.

In addition, various problems have arisen about the Internet environments themselves, which are the subject of widespread discussion. Some of these relate to the background of changing human relationships. Partly because information is weighted in favor of technical or practical aspects of the use of the Internet, there can be arguments about the merits or demerits of the Internet's primary functions. It seems that communication on the Internet is once more under scrutiny, especially because of problems of privacy. In such circumstances, Web surveys that emphasize only some aspect of technological innovation have become popular without sufficient critical examination.

Therefore, these surveys are being conducted under conditions of doubtful legitimacy. Moreover, problems arise because software development cannot keep up with the speed of hardware innovation. Consequently, we are faced with a situation where Web site surveys continue to grow, yet are conducted in a climate of unreasonable expectation, criticism or abuse. On the other hand, we can see various agencies and organizations beginning to take action. Such action includes discussions in relation to the FOIA, which are common in many agencies (see some reports listed in references).

4. Research objectives and procedures

Taking into consideration the circumstances described above, we have planned our research in accordance with the policies and procedures explained in the following sections, in order to assess, analyze and compare Web surveys as objectively as possible. Our aim has been:

- (1) To make a more detailed analysis of the datasets acquired from the twelve Web surveys conducted in the past.
- (2) To publish the results through extensive seminars and symposia; to discover what people really expect or want from Web surveys in the light of, for example, freedom of information considerations.
- (3) To examine how we should establish standards for Web surveys through practical fieldwork.
- (4) To take a leading role with other supporting organizations, in order, for example, to have every organization conduct their surveys *at the same time, and to use the same questionnaires*.
- (5) To make an objective assessment of the survey environments, clarifying similarities and differences between them.

The detailed procedures corresponding to each item of our plan are summarized in the Table 1 – 5. In particular, in this paper, we will discuss the aims of items (3) to (5) only through brief summaries.

5. Actual plan of the experimental surveys

Based on our research results in the past (Ohsumi 1997a, 1997b, Yoshimura and others 1998), we have designed a new plan. We have decided, from our experience and from the results of the information collected that it is necessary to categorize the contents of the Web surveys now in use in Japan. The summary of our survey plan in 1998 is described later. Our actual surveys have been done, or are being done, along these lines.

5.1. Types of Web-based survey in Japan

The variety of the types of Internet surveys does not allow us to make a cover-all general research. Various characteristics of Web surveys require us to set up a new framework to find out what position each Web survey conducted on the supporting Websites– the objects of our research– takes within today's survey environments.

Thus, we have classified existing Web surveys in Japan into three types according to their methods of securing respondents as follows:

Type 1 – Panel Style: Finds contributors by “want ad” or announcement on the WWW, and conducts several successive surveys targeting all of them. The number of the registrants would be about several thousand.

Type 2 – Resource Type: Finds contributors by want ad or announcement on the WWW, and selects actual targets from among them. The number of the registrants may vary from 10,000 to more than 100,000. This is the main type used in Web-based survey services and classified into the following methods:

a) Intra-resource open method – Asks the registrants for cooperation through banner ads or other means, but does not request each of the registrants to participate;

b) Attribute-narrowing-down method – Narrows down the population by gender, age, vocation, etc. Sends e-mail requesting cooperation. Often halts the survey when the number of answers desired is attained;

c) Sampling method – Selects respondents at random from among the registrants. Sends e-mail requesting cooperation.

Type 3 – Open Type: Publishes the questionnaires on the Web and asks for cooperation by banner ads or other means. Does not sample individuals. Often used in Internet user-profile surveys conducted by sites well known for their search services.

5.2. Characteristics of the survey plan and its methods

In 1997, we conducted twelve trial surveys on the WWW with the cooperation of a survey company. According to the above classification, these were “Panel-style surveys.” Our findings led us to plan other trial surveys for comparison, on the assumption that we would conduct our actual survey simultaneously on three distinct Web sites. For these surveys, we set up the following objectives:

- (1) To compare the results of Web surveys administered *almost simultaneously at three different Web sites*, and in which *the same questionnaires* were used.
- (2) To conduct the surveys four times with the fourth a repetition of the first survey.
- (3) To conduct two ordinary surveys (for example, omnibus surveys with interviewing) *at two different sites at about the same time*, using questionnaires as similar as possible to those used on the Web sites.

Several research companies accepted our proposals to collaborate with us in promoting this project. The summary of the survey plans is presented below.

(a) Survey Methods

The actual surveys were done with the collaboration of companies A, B, and C, each of which has WWW survey environments of its own, and company D, whose survey system uses some answer-only communication devices connected to telephone lines. The methods used (types of Web surveys) and the target respondents for each site are as follows:

Company A: Web survey – Panel style; there were 2,000 registrants in each of the two groups.

Company B: Web survey – Resource style with sampling procedures; the number of the planned-samples was 5,000. They were randomly sampled from a group of 21,867 registrants.

Company B: Sample survey – Omnibus style and interviewing method; respondents sampled from eligible voters living within 30km of the Tokyo metropolitan area.

Company C: Web survey – resource style with sampling procedure; 10,000 planned-samples selected out of 55,714 registrants by simple random sampling procedure.

Company D: Conventional sample survey – answer-only communication devices installed at home; the planned samples selected from eligible voters living within 30km of the Tokyo metropolitan area.

(b) Survey Periods

The Web surveys are to be conducted four times, each for the duration of at least one week, and almost at the same time, from February to March 1999.

(c) Construction of the Questionnaires

The outline of the questionnaires for each survey is described below. The second survey assumes respondents’ daily use of the WWW as a premise, so the same questionnaire cannot be used in ordinary sampling surveys (conducted in Companies B and D).

The first survey: ‘Awareness of daily life’ involved five questions with face sheet. The questions dealt with the following issues: ‘How you feel about your life’ cited from a study of the Japanese National Character and the items used In the other surveys; such as ‘Human relations’, ‘Consumption’, ‘Awareness of politics,’ and so on.

The second survey: ‘About the Internet environments’ involved nine questions with face sheet. The questions dealt with the following aspects of the Internet: ‘knowledge’ of and ‘reaction’ to the Net (the original questions designed by us); user’s frequency; attitudes toward it, ‘how you are involved in it’; e-mail address; offering of information; membership or registration services; information distribution; Internet surveys; anonymity, multinominality, and so on.

The third survey: ‘About various commercial products and services’ involved four questions with face sheet; about department stores; personal computers; TV news programs; how you feel about these products and services (the questionnaires cited from another survey were re-used).

The fourth survey: ‘Awareness of daily life’ was a repeat of the first survey.

5.3. Overview of Each Survey

The whole series of the surveys at each Website are summarized in Table 1 - 5. In the abstract, we only showed two of the five survey results, but now we can report all the details of the results, which are already shown in the tables. The above mentioned Web surveys by Site B and Site C employed the Intra-resource sampling method, where respondents were randomly sampled out from the registrants’ list registered in the database on the server machine; that is, all the registrants were assumed to be a pseudo-population as a whole, from which three kinds of schedule samples were extracted randomly. The samples include registrants undergone multiple extraction. We will refer to these as ‘multiple schedule samples.’ A request was made to each of the three samples for participating in the first, the second and the third survey, and to the samples participating in the first survey for taking part in the fourth survey, which is a repetition of the first. As for the Panel-style Survey by Site A, we made a request to all the registrants for getting into line as a respondent in every survey.

The respondents in the Omnibus Survey by Site B and those in the Online Survey by Site D were sampled out from the Residents' List by means of ordinary probabilistic random sampling – the former by the individual and the latter by the household.

6. Survey Results

The whole series of the surveys had completed, but we have been making analyses of the whole collected data so far. The summary of the surveys will be reported as follows:

6.1. Tendency of completion rate

(1) Low Completion Rate

In each of the Web surveys, completion rate is below 20%. As for Internet surveys, it is generally pointed out that surveys where we can capture the respondents do not bring forth so high a completion rate. In our surveys by Site B and Site C, we can see the same tendency. Panel-style surveys like the one conducted by Site A in past, however, are said to show rather a high completion rate. The experimental surveys that made in use of monitors for Site A and were conducted as many as 12 times in 1997 showed the completion rate of 40% at the lowest case. Compared to that, the completion rates for the Web surveys here must be said unexpectedly low. It is possible that something is wrong about how to observe the panel of registrants.

(2) Decreasing tendency of response rate

For every site, the response rate for the first survey is the highest, and as the survey progresses the response rate has decreased gradually.

(3) High re-response (or re-participation) rate

Re-response rate is defined as the response rate that the respondents of the first survey become again the respondents of the fourth survey. Then, the re-response rate account for high rates. Re-response rates for Sites A, B and C are about 64%, 71% and 70%, respectively.

(4) Overlapped (virtual) respondents

Overlapped respondents who are requested to answer in several times during four surveys exist in the Sites B and C. Such respondents are named 'multiple schedule sample.' The overlapped number of respondents calculated from the results of four surveys is shown below. Each rate in parentheses shows the rate of the overlapped respondents within the multiple schedule samples. As reference, the rates of the overlapped respondents for the surveys in Site A are also shown, where all the registrants are asked to participate in all the four surveys.

Site B: Requested twice (25.2%), three times (29.7%, 29.5%), four times (34.3%)

Site C: Requested twice (13.9%), three times (17.9%, 17.3%), four times (21.5%)

Site A: Requested four times (30.7%) (as reference)

The number of overlapped respondents for Site B is greater than that for Site C, and the number for the both sites increases by about 4% as the surveys progress. The overlapped number of respondents for the four surveys at each site is about 30%. Comparison between each site tells us that as for B site and A site, the rate of the participants in all the surveys is the highest, but as for C site, only participants in the second and the third survey show similar tendency, and the rate of participants is highest in the first survey.

6.2. Characteristics in the surveys

(1) Undelivered mails

Throughout the surveys by Site B, there are about 15% dead requesting mails left. As for the surveys by Site A and Site C, they cannot check out exactly because of poor facilities of the computer server system.

(2) Multiple response

Multiple response means that the same respondent makes her or his response in several times for a survey. The survey results for Site A and Site B show that there are about 5% multiple responses. The time stamps of many of such mails suggest that the respondents repeatedly pushed button in transmitting their reply. There are a few who takes a long interval after a few days.

(3) Existence of non-registrants' response

In the surveys by Site B, there exist a few non-registrants' responses. The rate is not large as shown in the columns of 'Responses by Non-registrants' in Table 1. In the surveys by Site A and Site C, since respondents are compared with the registration information on the databases and identified after they have accessed to the Web pages, there are no such responses.

(4) Systematic bias between schedule and collected samples

For each site (Sites A, B, and C), the rate of the age of 30 to 40 years in the respondents is larger than that in the schedule samples or the registered samples, as a result, we can observe there is a systematic bias in the construction of demographics of the schedule samples.

(5) Differences among demographic items

Comparing with the registered and collected samples concerning the demographic items for each site, we cannot recognize whether by mistake or on purpose, but for every site there are a few respondents who have altered some of their registered demographics.

6.3. Typical personality or characteristics of the respondents

Specific tendencies and features found in the answers to questionnaires quoted from other surveys lead us to imagine the respondents' personality as follows:

Not satisfied in his or her present state (about life style, life stage, and so on);
thinks much of his or her own hobbies or tastes;
cares for more of simple or indifferent than intimate human relations;
has much confidence in or expects for technology.

Generally speaking, they seem to be more self-referral than self-helpful. But, they are apt to seek for their own benefits. In this point, they don't seem to be truly self-helpful people.

6.4. Survey over participation in surveys

A question is provided about the frequencies of participating in researches or questionnaires. To this question, most answered "Once a month or more": 63.6% for Site B, 77.4% for Site C, 79.7% for Site A. As for the question about their registration, more than 10% of the respondents to A Company's surveys are also respondents to C Company, and about 4% of the respondents to B Company's surveys also respondents to C Company. Taking into consideration this fact as well as the fact that the rate of the number of the virtual respondents is about 30%, we can see that the same people of an unexpectedly limited number participate in various surveys and make responses repeatedly. Thus, our comparative experimental surveys have brought about a clearer image of respondents to the Web surveys. In discussing the usability and applicability of Internet surveys, we should put straight the points at issue, in considering respondents' personalities and behaviours, and propose objectively what we can do with the Web surveys.

7. Conclusion and future directions of Web survey

At least, for some experimental surveys in this time, data collection procedures on the Web-based survey have been well organized and conducted. However, one of the greatest problems of the Web-based survey is difficulty in identifying respondents and another one is the representativeness of the population. If we may accept it is possible, however, to make discussions on the effective and applicable use of Web surveys in spite of such problems, we must take into consideration what we describe below at least.

7.1. Mutual trust between survey researchers and respondents

To obtain the reliable results by Internet surveys, there must be mutual trust between survey researchers and respondents. Researchers should take great care of the respondents to get honest responses. At least, the following

(1) The incentive and the volume of questionnaires

In many cases, it seems that many respondents recognize their responding acts as something that they will have to pay their own expenses. We find in many of the free answers opinions that incentives by lots are not preferable. Too many questionnaires with poor incentive would cause bad feelings among the registrants. If they feel they send their answers at their cost, they may try to make up for their losses. Thus, researchers should avoid giving excessive incentive from the viewpoint of observing the reliability of survey results.

(2) Wiping off distrust

Of the answers to the question 'About the information distribution on the Net' in the second surveys, many hope for some limitation to anonymity and some regulation of the use of the Internet. As example, respondents seem to have much greater distrust in the Net than can be imagined, and such awareness is reflected upon their answers to the questions about the condition of participating in the Web surveys; in the second surveys many of them chose the options 'The researchers is reliable' and 'The aim and objective of the survey is understandable', 60% and 70%, respectively. It is necessary for researchers to make information as public or transparent as possible about the operational bodies and the purpose of the survey, and so on.

(3) Disclosure of survey results

More than 40% of the respondents of the second surveys choose that to be informed of the results is one of the necessary conditions to participate in surveys. The choice rate is as high as that of the option 'Not so many questions.' It is no wonder that no aftercare will make the respondents doubt if it is in fact a survey or if it is done for some other purposes.

The respondents managed by Site A, for example, consists of two panels: the first one for which registration was done at the beginning of the fiscal 1997, and the second at the end of the same fiscal year. In the experimental surveys in 1997, only the first panel was used as our research target. And when we requested for participation this time, we informed the respondents of the surveys in 1997 of the results of the previous surveys (though too late). The results of the surveys in this year tell us that those who joined in the first panel survey in 1997 account for greater part of the respondents to the surveys in this year than those in the second: 57.7% for the first, 62.9% for the second, 60.6% for the third, 58.6% for the fourth, respectively. Considering such a long interval of time, we may say it is caused by the disclosure of the survey results that there are so many registrants out of those who participated in the first panel survey conducted in Site B in 1997.

7.2. Other remarkable features

(1) From where responses are sent or accessed

The distributions of response time give us that many respondents send their replies while at work. Related ethical problems and how to deal with them should be brought up for discussion.

(2) Considering measures for juvenile

There are some respondents under the age of 15 years. Juvenile Internet users are growing in number. Discussions are necessary as to the registration of the minor children and the collection of privacy information from such children.

(3) deterioration caused by conflicts among surveys by many sites

Our survey results have revealed a situation in which several sites are sharing comparatively a few groups of the respondents. For respondents, the sites that can obtain a lot of benefit at low cost are

preferable. At present the sites seem to be competing for ‘registrants,’ but when it comes to the ‘quality’ of survey results, they will be competing for a high response rate. We are afraid accompanying unreasonable incentives may cause dynamical deterioration of the environment. It may become necessary for incentives to be regulated in some way.

(4) Necessity of simultaneous and longitudinal surveys by many sites

From the results of a series of experimental surveys, there may exist a possibility that respondents to Web surveys account for only a small part of the panels or the registrants that consist of a part of Internet users. This kind of bias cannot be adjusted through breakdown or weight-back treatment using demographic items. In order to make appropriate interpretation of the survey results and make effective use of them, it is essentially necessary to grasp the ‘characteristics of the group of the respondents’ and what positions they occupy among Internet users or the meanings of population on any occasions surveys take place. In this sense, we need such ‘longitudinal surveys’ as to clarify the characteristics of the respondents on the WWW, not a single-shot survey seeking for ad hoc responses.

(5) Others

In concluding, we may summarize several findings as follows:

- It seems that we have obtained a stable and somewhat commonly (systematically) biased response tendencies from the similar results among the three sites, in spite of the low response rates.
 - We may have found out a type of respondents that actively take part in Web surveys. Many participate in many surveys.
 - In the Web surveys, it may be available to easily conduct the repeated and longitudinal surveys.
 - It is necessary to encourage registration and secure a stable group of respondents. Operational bodies of the WWW survey have to try to keep their registrants for long.
 - Consideration for security and privacy is necessary.
 - It is also necessary to make survey results open on the premise that information should be shared.
- Web surveys can be very different from conventional ones in that they can provide with the results in real time.

Acknowledgements

We would like to express our special thanks for the Grant-in-Aid for Scientific Research by the Ministry of Education to a project shared among survey research companies and a group of researchers - unprecedented in Japan; in addition, be thankful to Professor Kawaura, Dentsu Research Ltd., NTT NaviSpace Co., Marketing Service Co. Ltd., and Recruit Research Co.

Table 1. Summary of the Web-based survey (for Site B: Intra-resource sampling method)

Survey	1st	2nd	3rd	4th
Period	1/28/99~2/4/99	2/10/99~2/17/99	2/25/99~3/5/99	3/11/99~3/18/99
Theme	Awareness of daily life	Internet	Consumer behaviour; purchasing policy	Awareness of daily life
Incentives (as goods token)	100 respondents by lots	100 respondents by lots	100 respondents by lots	100 respondents by lots
Number of Registrants	21,867	21,867	21,867	21,867
Schedule Samples	5,000	5,000	5,000	5,000
Number of No	742 (14.8)	881 (17.6)	785 (15.7)	858 (17.2)

Survey	1st	2nd	3rd	4th
Responses(%)				
Unregistration (%)				5 (0.1)
Number of Collected Responses	1,109 (22.2)	954 (19.1)	1,044 (20.9)	884 (17.7)
Multiple Responses (*%)	30 (*2.7)	59 (*6.2)	90 (*8.6)	61 (*6.9)
Responses by Non-registrants (*%)	34 (*3.1)	28 (*2.9)	30 (*2.9)	25 (*2.8)
Valid Responses (%)	1,045 (20.9)	867 (17.3)	924 (18.5)	798 (16.0)

note: *% shows percentage to Number of Collected Responses.

Table 2. Summary of the Web-based survey (for Site C: Intra-resource sampling method)

Survey	1st	2nd	3rd	4th
Period	2/16/99-2/23/99	3/3/99-3/11/99	3/12/99-3/19/99	3/23/99-3/30/99
Theme	Awareness of daily life	Internet	Consumer behaviour; purchasing policy	Awareness of daily life
Incentives (as goods token)	100 respondents by lots	100 respondents by lots	100 respondents by lots	100 respondents by lots
Number of Registrants	55,714	55,714	55,714	55,714
Schedule Samples	10,000	10,000	10,000	10,000
Unregistration (%)	122 (1.2)	139 (1.4)	136 (1.4)	122 (1.2)
Number of Collected Responses	1,258 (12.6)	971 (19.7)	937 (9.4)	774 (7.7)
Valid Responses (%)	1,258 (12.6)	971 (19.7)	937 (9.4)	774 (7.7)

Table 3. Summary of the Web-based survey (for site A: Panel-style)

Survey	1st	2nd	3rd	4th
Period	3/1/99-3/8/99	3/9/99-3/16/99	3/17/99-3/23/99	3/24/99-3/30/99
Theme	Awareness of daily life	Internet	Consumer behaviour; purchasing policy	Awareness of daily life
Incentives (as points token)	Gift Coupon for ¥1,000 to 100 respondents by lots	Gift Coupon for ¥1,000 to 100 respondents by lots	Gift Coupon for ¥1,000 to 100 respondents by lots	Gift Coupon for ¥1,000 to 100 respondents by lots
Number of Registrants	3,969	3,969	3,969	3,969
Schedule Samples	3,969	3,960	3,957	3,956
Number of Collected Responses	713 (18.0)	670 (16.9)	635 (16.0)	517 (13.1)
Multiple Responses (*%)	47 (*6.6)	48 (*7.2)	34 (*5.4)	26 (*5.0)
Valid Responses (%)	679 (17.1)	644 (16.3)	617 (15.6)	503 (12.7)

note: *% shows percentage to Number of Collected Responses.

Table 4. Summary of the Omnibus survey (for B site: Conventional Sampling and Omnibus)

Survey	1st	2nd	3rd
Period	2/4/99-2/14/99	2/18/99-2/28/99	3/24/99-3/30/99
Theme	Awareness of daily life, Goods, Services	Attitudes to daily life	Awareness of daily life, Internet
Incentives (as a book token)	Book coupon for ¥500 to 1,000 respondents by lot	Book coupon for ¥500 to 1,000 respondents by lot	Book coupon for ¥500 to 1,000 respondents by lot
Schedule Samples	1075	900	900
Valid Responses (%)	758 (70.5)	630 (70.0)	630 (70.0)
Invalid Responses (%)	317 (29.5)	270 (30.0)	270 (30.0)
Temporary Absence (%)	133 (12.3)	86 (9.6)	99 (11.0)
Long Term Absence (%)	21 (1.9)	13 (1.5)	20 (2.2)
Moving (%)	34 (3.2)	43 (4.8)	24 (2.7)
Refusal (%)	115 (10.7)	119 (13.2)	119 (13.2)
Others (%)	1 (0.1)	3 (0.3)	

Table5. Summary of the Online survey (for site D: Online Survey)

Survey	1st	2nd
Period	3/13/99-3/15/99	4/12/99-4/13/99
Theme	Awareness of Daily Life • Goods • Services	Awareness of Daily Life • Goods • Services
Incentives (as a book token)	Book coupon for ¥500 to 1,000 respondents by lots	Book coupon for ¥500 to 1,000 respondents by lots
Schedule Samples	750	750
Valid Responses (%)	612 (81.6)	529 (70.5)

REFERENCES

- [1] Couper, M.P. ,Baker, R.P. and others (1998). *Computer Assisted Survey Information Collection*, John-Wiley.
- [2] Jones, S. (1998). *Doing Internet Research –Critical Issues and Methods for Examining the Net-*, SAGE Publications.
- [3] Kawaura, Y. (1998a, 1998b) ‘Informational demands and informational behaviour (in Japanese). in *Monthly Advertisement Report*, No. 454, 42-47 and No. 458, 38-43.
- [4] Ohsumi, N. (1997, 1998). *A Study on New Survey Methods for The Changes in Survey Environments*; in a research report of Micro Statistic Data Research of Priority Field of Scientific Research Expenditure of the Ministry of Education.
- [5] Yoshimura, O., Ohsumi, N., Kawaura, Y. and others (1998) ‘Some Experimental Trials of Electronic Surveys on Internet Environments’, in *Advances in Data Science and Classification*, 663 - 668, Springer-Verlag, Heidelberg.
- [6] The Ministry of Posts and Telecommunications. (1999). For Everyone to Safely Use Information Networks – A Study Group’s Committee Report on *Inappropriate Use of Information Networks and how Claims Should Be Dealt with* (in Japanese).
- [7] The Ministry of International Trade and Industry. (1998). *Guideline for Protection of Private Information Concerning Computer Processing in Private Sectors* (in Japanese).
- [8] The Telecommunications Bureau of the Ministry of Posts and Telecommunications. (1998). *A Study Group’s Committee on Protection of Privacy in Telecommunication Services* (in Japanese).
- [9] Japan Marketing Research Association (1998). Report of Marketing Research Business – A Guideline for Protection of Private Information (in Japanese).

RÉSUMÉ

Nous présentons la situation globale de l’investigation par l’internet (Internet surveys) au Japon, et nous montrons les projets et les résultats d’une serie des enquêtes réalisées par le même questionnaire pendant la même période par les plusieurs établissements spécialisés dans l’investigation. Pour examiner la possibilité de l’utilisation du média de l’internet nous avons réalisé aussi ces enquêtes d’une façon coopérative (Omnibus survey) par l’interview pour les personnes échantillonnées par le moyen ordinaire. Nous présentons globalement l’examination comparative sur tous les résultats.

Bulletin of the International
Statistical Institute

*Bulletin de l'institut international
de statistique*



ISI 99

52nd Session *52^{ème} Session*
Proceedings *Actes*
Tome LVIII *Tome LVIII*

Finland 1999

AUTHORS

Invited
Contributed

SEARCH

TOPICS

Invited

Bulletin of the International
Statistical Institute
*Bulletin de l'Institut International
de Statistique*



ISI 99

52nd Session

52ème Session

Proceedings

Actes

Tome LVIII

Tome LVIII

Three Books
Book 2

*Trois Livraisons
Livraison 2*

Helsinki 1999

Improving the effectiveness
of data collection through
innovative technology.

*L'innovation technique pour
améliorer l'efficacité de la collecte
des données.*

Organiser/Organisateur:
Wouter Keller

The online survey in Japan: an evaluation of emerging methodologies.
Noboru Ohsumi and Osamu Yoshimura

A successful match between concepts and techniques in data collection: the Teler project.
Hans R. Stol

Listening for data: new-millennium prospects for computer-assisted interviewing in
statistical surveys.
James E. Smith