

Assessing Performance on NHK Promises: Methods and Approaches

TSUJI Masatsugu

The aim of this paper is to describe the basic approaches and methods for assessing performance on the promises made by NHK (Japan Broadcasting Corporation) to its television and radio audiences, who support the organization with receiving fees, in 2005. NHK revenues declined drastically after improprieties involving use of funds that led audiences to refuse or withhold payment of receiving fees. To restore audience trust, in June 2005 NHK announced a list of promises and established a committee (“the Committee”) of which the author served as head, to assess how successfully NHK was in carrying out its promises. The Committee’s mission was to conduct an assessment independently of the NHK executive. But rather than simply conducting an outside assessment, the Committee focused on the structural changes in the environment for public broadcasting, examining the issue from a broad perspective, utilizing the most up-to-date assessment methods.

In recent years assessment of government administration or environmental issues has become quite common. But there is not necessarily any agreement on approaches to the methods that should be used for such measurements, nor are there any established standards. This paper, while tracing the path of the Committee’s findings and discussions, will also describe its new approach to assessment theory and practice that might go beyond evaluation of NHK’s promises.

The BBC of the United Kingdom and public broadcasters in some other countries have undergone assessments. The studies carried out in those cases are fundamentally different from the assessment of performance on NHK’s promises conducted by the Committee. Whereas BBC assessment is conducted by the organization itself and consisted of the board of governors’ assessment of executive board promises, in the case of NHK the assessment was carried out by neutral evaluators not connected with NHK.

AIM AND BASIC POLICY

Assessment of NHK’s promises by the Committee aimed to determine how successful NHK has been in acting on its promises to the public and restoring

their trust. The survey was conducted using strictly objective and quantitative measurement methods and abiding by rigorous standards of scholarship.

Assessment Indicators

The subject of the assessment is the six promises, including nine subsidiary items, made by NHK (Figure 1). Such an assessment might appear at a glance to be simple, since the targets are quite specific, but there are numerous indicators available for analyzing the results. These can be summarized as follows.

NHK made promises in six main categories and nine sub-categories and has taken various steps to fulfill these promises. The volume of management resources—funds, equipment, personnel, time—mobilized to carry out those steps is considered as input. NHK’s commitment to change and quantitative variables are inputs. These inputs yield results, such as new programs, systems, and measures for eliminating abuse of funds, more receiving fees collected, amounts by which expenditures were cut and so forth. These are referred to as outputs. In other words, the assessment measures how successful NHK has been, as a result of the steps it has taken. Although these input and output indicators focus on NHK, which is the object of the assessment, it is more important to assess the effect that these inputs and outputs have had on audiences and the general public, or how these groups assess the inputs and outputs. From the perspective of the audience, these indicators are referred to as outcomes. One of these is audience satisfaction, a concept analogous to customer satisfaction. This outcome is the most important element as the indicator for determining whether NHK has been able to restore public trust.

Main Items Assessed

Since it is difficult to assess the six main and nine subsidiary items of NHK’s promises uniformly over a certain period, a major goal was to assess the extent to which NHK has restored public trust. The Committee focused on two of the most important tasks for NHK in this respect, namely “better service,” represented by its programs, and “transparency of NHK management reforms,” for example, compliance and accountability. Accordingly, of the six promises made by NHK, the assessment focused on three: broadcasting wholesome, high-quality programs consistent with receiving fees paid by audiences (better programming); eliminating improprieties and operating in a transparent and accountable manner to regain public trust (eliminating improprieties, establishing transparency and accountability); and reducing expenses and operating efficiently and effectively (effective and efficient operations).

Figure 1. NHK 2005 Promises**Promise 1: To provide better programming**

We will create more and better programs consistent with receiving fees paid.

- We will appropriately cover the issues Japan faces and broadcast programs providing information helpful for thinking and deciding about the issues Japan faces.
- We will improve emergency broadcasting to respond promptly to threats to human life and property.
- We will broadcast programs contributing to the benefit of local society.
- We will tailor broadcasts to better meet the needs of seniors and persons with disabilities.
- We will broadcast programs contributing to the healthy development of children, the future of Japan, and the stimulation of receptive intellectual curiosity.

Promise 2: To spread the burden fairly

We will work to promote understanding of the receiving fee system and ensure that the burden is borne equitably.

- We will undertake more diverse, effective, and efficient sales activities to ensure that receiving fees are paid by all.
- To spread the burden fairly, we will study adopting a fairer and more practical receiving fee system.

Promise 3: To respond to audiences' voices

We will establish a stronger relationship with audiences and reflect their opinions in our operations.

Promise 4: To eliminate improprieties and promote transparency and full accountability

We will stamp out improprieties and operate in a transparent manner and with full accountability, to restore the public's trust in NHK.

Promise 5: To manage operations effectively and efficiently

We will reduce costs and carry out operations effectively and efficiently.

Promise 6: To benefit society through digital technology

We will plow back into society the advances made in digital technology.

- We will make greater efforts to develop and spread digital broadcasting so as to improve audience access to it.
- We will develop digital technology and new services using this technology, to improve the public's convenience.

Particular attention was paid to the last two items, to examine how internal reforms were carried out in a manner visible to the public.

Renewed public trust in NHK will ultimately be manifested in the restored payment of receiving fees. In particular, importance was placed on figures for the number of cases of payment refused or withheld in the wake of improprieties, and how the attitudes and behavior of viewers and listeners who took such actions have changed after steps taken by NHK in line with its promises.

Assessment Method for Promises

Since no appropriate indicators exist for assessing performance on the promises detailed in Figure 1, the attempt is difficult. Accordingly, the Committee used proxy variables that seem to determine the extent to which each promise has been carried out, making them assessment items and assigning scores to each. Details concerning which items the Committee used and how it used them will be discussed in the section below describing the assessment of each promise.

The Committee used a 5-point scale for assessing each item, with a score of 1 representing “poor” and 5 standing for “good.” In principle, the maximum score for each item is 5, and the Committee determined the final score using a point deduction system. However, it did not assign scores to each of the promises themselves. It might be possible to work out a simple average or a weighted average for each promise, but we purposely avoided doing so, in order to make NHK’s various departments responsible for bringing the promises to fruition focus on the scores for the individual items rather than letting them decide the extent to which their promises have been fulfilled based on average scores. In other words, the Committee wanted the departments to do something about the items with low scores, rather than let them conclude that if average scores are attained everything is fine. Meanwhile, for items with high scores, the Committee wanted the departments to pay more attention to assessments for individual items so that they will continue working to resolve the problems.

Assessments Contribute to Reform

In addition to assessing the matters at hand, externally administered assessments often identify issues and suggest solutions. In its assessment of NHK promises, the Committee endeavored to recommend measures that could be implemented to enhance NHK management and tried to come up with a detailed action plan for such reforms.

COMMITTEE FOCUS ISSUES

In carrying out its mission, the Committee was aware that macro-scale structural changes much more wide-reaching than generally realized at NHK are behind its difficulties, and that any reforms attempted must take those changes into account. They are as follows.

Structural Changes among Audiences

Among the changes taking place in the media environment, there has been a structural change in audience expectations of NHK. For example, NHK audiences are decreasing in all age segments, most notably among young people. NHK's audience is aging, as shown by the fact that its main audience is shifting from people in their 40s to those in their 50s. In this changing environment, assessment must be done taking into account changed public expectations of NHK.

Management Organization Issues

Simply improving program quality will not restore audience trust. The situation of people refusing to pay or withholding payment of NHK receiving fees in the wake of recent improprieties indicates that they place the same weight on NHK organizational or management issues as they do on its broadcasting services. Thus, NHK's management and organization will be assessed from the perspectives of transparency and accountability.

Gap between NHK and Audiences

The perception gap between NHK and audiences regarding service content (e.g., programs) and the organization's management is a reason why public trust in NHK has not been restored. For example, where the "better programming" of Promise 1 is concerned, there may be a gap between the programs and services that the public expect because they are paying receiving fees and the programs that NHK considers consistent with those fees. The Committee decided that it should look into this issue as well.

FIXED-POINT AND STRATEGIC ASSESSMENT

The external assessment made by the Committee consists of "fixed-point assessment," involving fixed-point observation of numerical changes in the usual assessment items, and "strategic assessment," which analyzes the fundamental problems behind the issues being assessed.

Value of NHK Broadcasting Services

NHK's first promise is "We will create more and better programs consistent with receiving fees paid." In the strategic assessment for this item, the contingent valuation method (CVM) was used to calculate a monetary amount for the value that viewers and listeners ascribe to NHK broadcasting services. CVM is a method used to estimate market value for non-market traded goods

and services by assuming that they are traded on the market. It is frequently used to assess environmental issues or public services. For example, to estimate the monetary value of a public service like ambulance service, users are asked directly the maximum they would be willing to pay for the service and how much they would be willing to accept in compensation if the service was curtailed.

In NHK's case, the "price" already exists in the form of receiving fees, but since this is a public service fee it was not set through transactions with audiences. And unlike charges for gas or electricity, receiving fees are not a charge paid for viewing or listening to broadcasts. Willingness to Pay (WTP) was estimated, therefore, to work out the value of NHK's broadcasting services among audiences. Through the surveys using the interview schedule, WTP was measured among respondents by asking them how much they would be willing to pay for existing NHK services. Similar surveys have been carried out in the U.K. regarding the BBC and in other countries.

Public Broadcasting Services Expected by Audiences

In the subsidiary items of its first promise, NHK undertakes to produce programs outlining the issues facing Japan, emergency broadcasts, local programs for different regions of the country, programs for the elderly and disabled, and educational programs. Meanwhile, public broadcasting means different things to different people. Some expect entertainment, through variety programs, animation, and so on. In response, the Committee divided the value of public broadcasting expected by audiences into 19 categories—such as passing on Japanese traditions and culture, closing the information gap, creating new program formats, or communicating information about Japan to the world—and asked viewers and listeners to assess those categories in terms of their expectations of NHK, how likely NHK is to make these a reality, or their satisfaction with the categories. In this way, the Committee tried to clarify audiences' positioning of public broadcasting in the future.

COLLECTING DATA FOR THE ASSESSMENT

Various types of data must be considered comprehensively. Data collection is an important element in assessing NHK's promises and the capacity to collect useful data determines whether the assessment is successful. Accordingly, data held by NHK were used, but the Committee also collected its own data. Data can be divided into qualitative data collected through interviews and quantitative data obtained through the use of the interview schedule.

Interviews

Only qualitative data can be collected through interviews, but the positive aspect is that interviews allow participants' own voices to come through. Therefore, in order to hear the views of employees from as many strata as possible, we interviewed NHK executive and managing directors and also employees at middle management level, researchers at the NHK Science and Technology Research Laboratories, and employees at local NHK stations.

In the interviews with the NHK executive directors, we learned about the relationship between the promise for which each individual was responsible and reforms at NHK, and the intention, aim, and concrete measures for implementing promises, and asked questions about these issues. However, the 2005 promises had already been made public by the time the interviews took place, so we did not bring up the appropriateness or the specific numerical targets concerning the objectives set out.

In the interviews with middle management, we asked a number of people working in program production and editing how they felt about the improprieties, their opinions of NHK's promises and various other reforms, corporate culture such as workplace communication, and their own efforts to restore NHK's standing in the eyes of the public. We were able to obtain frank comments from these people concerning why the improprieties occurred, the impact of the improprieties, employees' awareness of the rules, and so on.

Regarding the promise to benefit society through digital technology, the members of the Committee went to the Science and Technology Research Laboratories to learn more about the utility of the technologies developed, technologies currently under development, and the Laboratories' research and development system. While there, we observed experiments with a device for slowing down audio track speed for the benefit of seniors and persons with disabilities, a camera that can record images even in extremely low light, and other innovations.

Given that the Committee members' expertise did not cover all the areas necessary for assessing the promises, in certain fields we consulted experts. For example, for reference in assessing the transparency of NHK's management and extent of its information disclosure, we interviewed experts in the financial and other industries. To help assess NHK's technology development, we talked to researchers from other companies or organizations who had been involved in joint research projects with NHK and also university professors who were authorities in the fields of telecommunications and broadcasting technology.

The Interview Schedule

The use of the interview schedule is important because data appropriately showing the assessment of items can be obtained from respondents. If the appropriate data results, there are no problems, but this is not always necessarily so. In the assessment, we paid particular attention to how audiences evaluate the promises made by NHK from the viewpoint of outcomes. But each promise, for example, “better programming,” or “managing operations more effectively and efficiently,” is couched in general and abstract terms. Therefore, it is necessary to select indicators expressing these ideas appropriately and “translate” them into questions used in audience surveys. Questions, therefore, were created so that respondents could understand the evaluators’ intentions. As a result, creating the questions took considerable time and energy. The content of the questions will be examined below when discussing the assessment of each promise.

In addition to scores for the respective assessment items at a certain point in time, another important factor is tracking how those scores change over time. Because the assessment period was less than one year, we were only able to carry out only a few surveys. But since we will be assessing NHK promises over the next two years, we decided to check the same assessment items each time and trace the changes in these items over a three-year period.

We conducted surveys using the interview schedule not only among members of the NHK audience but also employees of NHK. In the case of the former, the survey was titled a survey of attitudes toward public broadcasting and conducted as follows.

- In December 2005, through personal interviews with 2,000 men and women aged 20 and over throughout Japan, selected by stratified two-stage random sampling (1,314 valid answers; valid response rate 65.7 percent)
- In February 2006, through drop-off questionnaires left with 3,600 men and women aged 16 and over throughout Japan, selected by stratified two-stage random sampling (2,145 valid answers; valid response rate 59.6 percent)
- In April 2006, through personal interviews with 3,600 men and women aged 16 and over throughout Japan, selected by stratified two-stage random sampling (2,018 valid answers; valid response rate 56.1 percent). Questions related to the CVM were added to this survey.

Meanwhile, among NHK employees, we conducted an attitude survey dealing mainly with compliance issues. This survey was an ASP (where respondents access an ASP server for answers and answer the questions) Web-based survey for all NHK employees (except for those on transfers to other companies) conducted as follows.

- In the first survey in December 2005 of a sample of 11,683, valid answers were received from 6,940 persons, for a valid response rate of 59.4 percent.
- In the second survey in April 2006 of a sample of 11,613, valid answers were received from 6,852 persons, for a valid response rate of 59.0 percent.

STRATEGIC ASSESSMENT

In addition to assessing performance on NHK's promises, the Committee examined and analyzed issues important when considering the public broadcaster in the future. This strategic assessment included the value of its broadcasting services and a value analysis of public broadcasting in general.

CVM Analysis of NHK Broadcasting Services

In April 2006, the Committee conducted a survey regarding CVM in the form of personal interviews among 3,600 men and women aged 16 and over throughout Japan, selected by stratified two-stage random sampling. Respondents were divided into two groups, those asked about WTP and those asked about WTA (willingness to accept [compensation]). They were asked about WTP and WTA for terrestrial television services (NHK General, NHK Educational, NHK Radio 1, NHK Radio 2, NHK FM) and satellite services (NHK BS-1, NHK BS-2, NHK Hi-Vision), with scores tabulated to calculate the monetary value of NHK broadcasting services.¹ The valid response rate to this survey was 56.1 percent. The 2,018 respondents were 1,009 WTP respondents and 1,009 WTA respondents, who were asked the questions below. In the text of the questions, respondents were asked about a base amount of 1,500 yen, but after this question, they were asked a second time concerning a lower or higher amount, based on their answer to the question the first time, and the amount was again adjusted up or down, based on their answer.

In the case of the WTA question, valid responses were received from 326 people (32.3 percent) for the terrestrial services group and 211 (21.9 percent) for the satellite services group. Since the number of valid responses received was smaller than necessary for achieving a significant estimation, we did not adopt the WTA estimate. The large number of respondents who refused to answer the WTA question is indicative of their negative feelings toward NHK dropping broadcast services.

¹ The Cost Benefit Research Group, headed by Prof. Onoe Hisao, director of the Institute of Economics Research at Kyoto University, together with members of NHK, is said to have conducted the first WTP study, in 1975-76, on broadcasting involving fieldwork, with the aid of a grant from the Hosono-Bunka Foundation (Onoe and Sakamoto [1979]).

Text of the WTP question

Assume that NHK's existing receiving fee has been eliminated.

Based on that assumption, are you willing to pay 1,500 yen per month to watch/listen to NHK's existing NHK General and NHK Education television and radio programs? This money will be used appropriately as a 'broadcasting fee' to create programs provided by NHK and to support development of broadcasting technology and other operations necessary for maintaining public broadcasting. Since this amount is a monthly payment, please consider the effect that it will have on your household budget when answering.

Please note that answering this question will not affect the receiving fee you pay to NHK.

Text of the WTA question

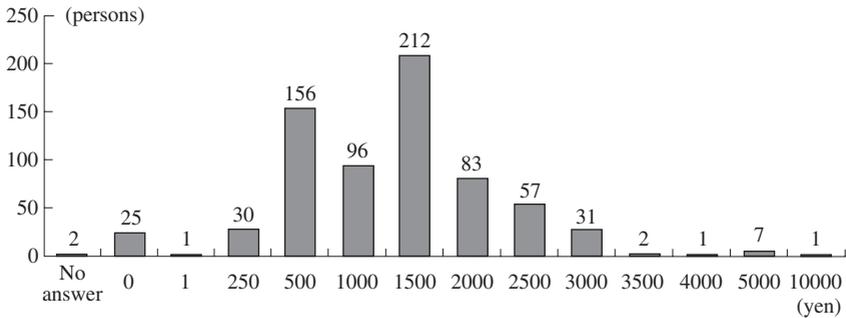
This is a question about the value of public broadcasting. Everything in this question is an assumption, so please answer based on this assumption.

Assume that NHK discontinues broadcasting services. NHK has provided broadcasting services useful for the public, including you, and in compensation NHK will pay you money in perpetuity. No taxes or other public funds will be used for this. Taking these points into consideration, would you be willing to accept no longer being able to watch/listen to NHK's existing NHK General and NHK Education television and radio programs in exchange for compensation of 1,500 yen per month?

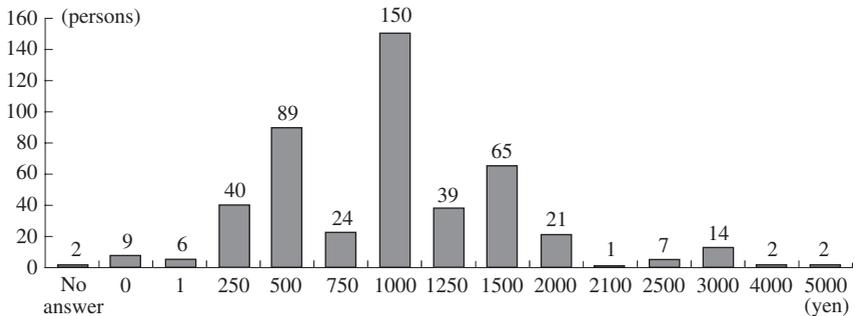
Please note that answering this question will not affect the receiving fee you pay to NHK.

When calculating the WTP used in CVM, we designated the number of respondents, including those answering "0 yen" the universe and calculated WTP within the range of a maximum of 10,000 yen in the case of terrestrial services and 5,000 yen in the case of satellite services. Figures 2 and 3 show respondent distribution.

We arrived at an estimation of WTP, an indication of the current value of NHK broadcasting services according to CVM, by plotting the probability of acceptance for the respective fees along the logistic curve and estimating their parameters. According to our estimates, respondents were willing to pay 1,780 yen monthly per person for terrestrial services and 1,245 yen monthly per person for satellite services. These amounts are higher than current receiving fees (1,395 yen monthly for a color TV contract, plus an additional 945 yen monthly for color satellite broadcasts, when collected by a fee collector)

Figure 2. Distribution of WTP Respondents, in the Case of Terrestrial Services

Note: The responses of 305 persons whose answers were irrelevant to the question were eliminated from the calculation.

Figure 3. Distribution of WTP Respondents, in the Case of Satellite Services

Note: The responses of 538 people whose answers were irrelevant to the question were eliminated from the calculation.

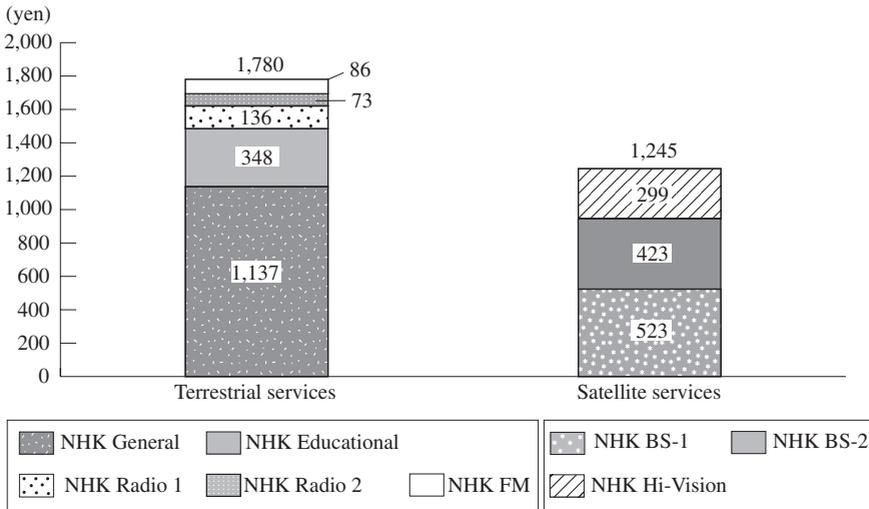
calculated based on accumulated expenses. (See Figure 4.)

We calculated the ratio of importance for each of the respective terrestrial services and multiplied those ratios by WTP, and did the same for the satellite services.

Factors Affecting WTP

The following describes part of our analysis of the factors affecting WTP. First, when we carried out Logit analysis of the relationship between the calculated WTP and respondent characteristics, we found that factors such as “manager, specialist, professional” occupations, “age,” and “satisfaction with NHK” boosted WTP (including for satellite services). In the case of satellite

Figure 4. Monetary Value for NHK Broadcasting Services Calculated According to CVM (monthly, per person)



services, respondents who were in “farming, forestry or fisheries,” or “self-employed,” showed high WTP. Characteristics such as “region” or “size of city” do not have any impact on WTP. (See Figure 5.)

Next, when examining the relationship between WTP and respondents’ assessments of what NHK has been doing with regard to its promises (Figure 6), those who are satisfied with the promises “to improve emergency broadcasting to respond promptly to threats to human life and property,” “to work to promote understanding of the receiving fee system and ensure that the burden is borne equitably,” and “to plow back into society the advances made in digital technology” show a high WTP for NHK programs, including satellite broadcasting. This confirmed that audiences want “better programming” and “a (receiving fee) burden borne equitably,” promises that the Committee identified as particularly important.

In addition, respondents very satisfied with the promise “more and better programs consistent with receiving fees paid” also showed high WTP for NHK General, NHK Educational and NHK radio programs.

Figure 5. Relationship between WTP and Respondent Characteristics

		NHK General, NHK Educational, radio programs		Satellite services (NHK BS-1, NHK BS-2, NHK Hi-Vision)	
		WTP		WTP	
		Coef.	t-value	Coef.	t-value
Occupation	Farming, forestry or fisheries	226.43	1.00	812.82	2.06 **
	Self-employed	119.63	0.80	532.71	2.13 **
	Manager, specialist or professional	556.25	2.96 ***	1191.15	4.01 ***
	Sales, services	-153.69	-0.73	164.20	0.48
	Skilled factory worker	-50.83	-0.31	237.53	0.85
	Clerical/research worker	111.78	0.73	170.07	0.67
	Homemaker (female, male)	-34.53	-0.26	343.66	1.46 +
	Student	313.72	1.31 +	-477.48	-0.92
	No occupation	138.45	0.91	468.14	1.79
Age		10.55	3.60 ***	11.05	2.14 **
No. of persons in family		14.85	0.61	-19.00	-0.41
Income		4.07	0.38	73.89	1.91 *
Length of viewing/listening time		17.08	0.88	23.35	0.69
Satisfaction with NHK		192.45	4.62 ***	272.05	3.87 ***
Satisfaction with commercial TV		-14.56	-0.38	-13.66	-0.21
Region		-3.93	-0.17	-36.34	-0.96
Size of city		-13.34	-0.50	-18.84	-0.41
Constant value		44.48	0.14	-676.48	-1.18
Observed value		621		299	
Adjusted R-square		0.115		0.165	

Indicates significance at the significant level of: *** under 1%; ** under 5%; * under 10%; + under 20%.

Value of Public Broadcasting in Other Countries

United Kingdom

In the United Kingdom, CVM is an established element for explaining costs and benefits², with CVM being used by public broadcaster BBC to measure itself in terms of its vision when renewing its broadcast charter. Results of CVM are as follows regarding amounts for license fees.³

² See BBC 2006, p. 87.

³ BBC 2004.

Figure 6. Relationship between WTP and Satisfaction with Steps Taken by NHK Regarding Its Promises

Steps taken by NHK regarding its promises	NHK General, NHK Educational, NHK radio programs		Satellite services (NHK BS-1, NHK BS-2, NHK Hi-Vision)	
	WTP		WTP	
	Coef.	t-value	Coef.	t-value
Create more and better programs consistent with receiving fees paid	350.05	3.49 ***	107.23	1.11
Give appropriate coverage of issues Japan faces and air programs helpful for considering the issues	147.64	1.32 +	235.87	2.21 **
Improve emergency broadcasting to respond promptly to threats to life and property	632.21	6.05 ***	460.59	4.62 ***
Broadcast programs contributing to the growth of regional society	141.68	1.34 +	-35.04	-0.35
Broadcast programs that address the needs of seniors and persons with disabilities	-67.27	-0.64	-18.74	-0.18
Broadcast programs supporting the healthy development of children, future of Japan, and intellectual curiosity	45.30	0.43	61.79	0.60
Promote understanding of receiving fee system, ensuring fee payment and equitable burden of fees	209.99	1.90 *	223.96	2.19**
Reflect audiences' opinions in operations	64.62	0.59	65.77	0.62
Eliminate improprieties, and promote transparency and full accountability	-32.18	-0.26	-19.06	-0.17
Reduce costs and carry out operations effectively and efficiently	23.46	0.20	20.77	0.19
Plow back into society the advances made in developing broadcasting technology	282.70	2.00 **	285.65	2.15 **
Make more efforts to develop digital broadcasting and audience access	100.77	0.73	28.38	0.22
Observed value	648		443	
Adjusted R-square	0.67		0.65	

Indicates significance at the significant level of: *** under 1%; ** under 5%; * under 10%; + under 20%.

Period: May 2004

Survey target: 2,257 (survey on total value: 1,136; survey on consumer value: 1,121)

Survey method: personal interviews

Question method: The BBC's total value and consumer value are estimated by asking about WTA for each. For total value, the national voting method (double bound model) is used; for consumer value, the Gabor Granger method (payment card system), showing eight amounts (£5, £10, £15, £20, £30, £40, £50, £60) randomly, is used.

Estimation model: calculated according to the random effect model

Total value: £20.70/month

Consumer value: £18.35/month

Factors having an impact on WTP are measured in terms of their correlation with items classified under various genres. For total value, results indicate a positive correlation with news, regional news, nature programs, current affairs programs, etc. For consumer value, there is a direct correlation with news, regional news, soap operas, popular movies and so on.

The British government also carries out the same WTP survey when determining license fees, with the following results.⁴

Period: 2005

Survey target: 9,749 persons (random sample from 100,000 individuals recruited online, but excluding those not answering about WTP or not having paid license fees (1,741)

Survey method: online survey

Question method: bidding game. Price starts at £31 or more per month, with amounts of £31, £27, £23, £19, £15, £11, £7 and under £7 shown.

Estimation method: random effect model

Estimation result: The value of existing services + proposed future services was set at £162.72 yearly (standard group). The value of existing services + proposed future services was set at £162.60 yearly (public value group).

The Logit model and other methods are used for estimation.

In this analysis, factors affecting WTP are estimated using the Logit model, but there is a significant proportional relationship with the assessment for the BBC's quality. Regarding the relationship with the five values set out by the BBC in its "vision," there was little difference among the items.

Ireland

Next, a WTP survey was conducted to verify the appropriateness of licensing fee amounts for the Irish public broadcaster RTE, to analyze what program genres and WTP have a correlation.⁵

⁴ Work Foundation 2006.

⁵ Finn, McFadyen, and Hoskins 2003.

Survey target: 807 persons aged 15 and over from the respective age, sex, address and social class segments.

Period: late November to early December, 2002

Method: telephone interviews

Question format: Regarding price, open-ended answers. However, in the pre-test (360 samples), respondents were shown prices of 30, 60, 90, 120, 150, 180 and 210 and asked to choose between two items.

Estimation result: median score 21.05 per month (household); average score 15 per month (household)

Factors affecting WTP are estimated using the method of generalized least squares, the Tobit model and the Logit model, and there is a correlation between WTP and satisfaction and contact frequency. Comparison of quality with commercial broadcasters for certain genres also has a strong impact on WTP.

Canada

A WTP survey was also conducted in Canada, to assist in discussions when setting the amount of government subsidies for the Canadian Broadcasting Corporation (CBC).⁶ The characteristics of this analysis are that it treats usage value and non-usage value separately, and that the question formats use a combination of open-ended and double bound models.

Period: autumn 1998

Survey target: 2,404 households throughout Canada (selected from telephone directories); response rate 39 percent. Respondents were divided into one group answering about usage value for their own use, and the other about usage value for other Canadians.

Method: placement method

Question format: Regarding price, a combination of open-ended answers and double bound method when shown prices of C\$2, C\$7, C\$12 and C\$18.

Estimation results: C\$5.76 per month (English-speaking households); C\$5.46 per month (French-speaking households)

Factors affecting WTP are estimated using the Logit model, and the figures show that sports, domestic news and Canadian drama have a strong impact on WTP, and that there is also a positive correlation between WTP and comedy, radio, regional news, children's programs and so on.

As the above examples from the U.K. and others illustrate, varying respondent

⁶ Delaney and O'Toole 2004.

characteristics and question format show an attempt to grasp the effects and value of broadcasting from multiple viewpoints.

Country Perspectives in CVM Analysis

As described above, WTP analysis of public broadcasting in the United Kingdom and Canada used different content and analysis methods. The following summarizes the similarities and differences with these countries with regard to the assessment of performance on the NHK promises.

Aim

The aim of a CVM survey is generally the same in all countries. This type of survey seeks to analyze the value of public broadcasting and whether current fees are appropriate from the audiences' perspective, at a time when media are becoming increasingly diversified.

Research and analysis methodology

Taking budget limitations into consideration, the survey method should be as bias-free as possible within those constraints. All survey methods—home interview, Internet, mail, telephone—have advantages and disadvantages, and there is no “best” method. It is well-known, for example, that in the case of telephone surveys a selection bias is at work, because only those with telephones can be respondents. But as Arrow, et al. (1993) have demonstrated, some telephone surveys are more effective than personal interview surveys because they eliminate the influence of the interviewer. Similarly, Internet surveys limit the pool of respondents to Internet users, so they are inappropriate for estimating WTP among a broad segment of the general public. On the other hand, when analyzing somewhat future-oriented trends asking about the types of media from which people will obtain broadcast contents in the digital age, it is more appropriate to ask Internet users, who are already engaged with this medium.

In the NHK promise survey, a generous budget made it possible to conduct personal interviews on a nationwide basis, surveying as many respondents as possible and reflecting the views of audiences as accurately as possible in terms of region, age, gender, and other respondent characteristics.

In CVM, many different formats—open-end, closed-end, double bound, etc.—have been developed for the WTP question format, and the characteristics of WTP obtained from these are also analyzed. The method used depends on the aim of the analysis and the research previously accumulated by researchers. To simply estimate the size of WTP, the double bound model may be used, but in terms of assessing NHK's promises, in addition to the extent of

WTP itself, we wanted to clarify the factors determining extent and also hoped that this would be helpful for management strategies to increase audience WTP. The study identified WTP and factors influencing WTP when analyzing economic assessments of health care and roads, using the three-stage double bound model and the Logit, Probit and Tobit methods (see, for example, Miyahara et al. 2006, Miyahara et al. 2007, Tsuji et al. 2004, Tsuji et al. 2006). Our most important reason for choosing these methods was that we could apply this kind of accumulated past research. In terms of similarity with other countries, the research we carried out in this study most closely resembled the analysis of Ireland's RTE.

Value Analysis of Public Broadcasting

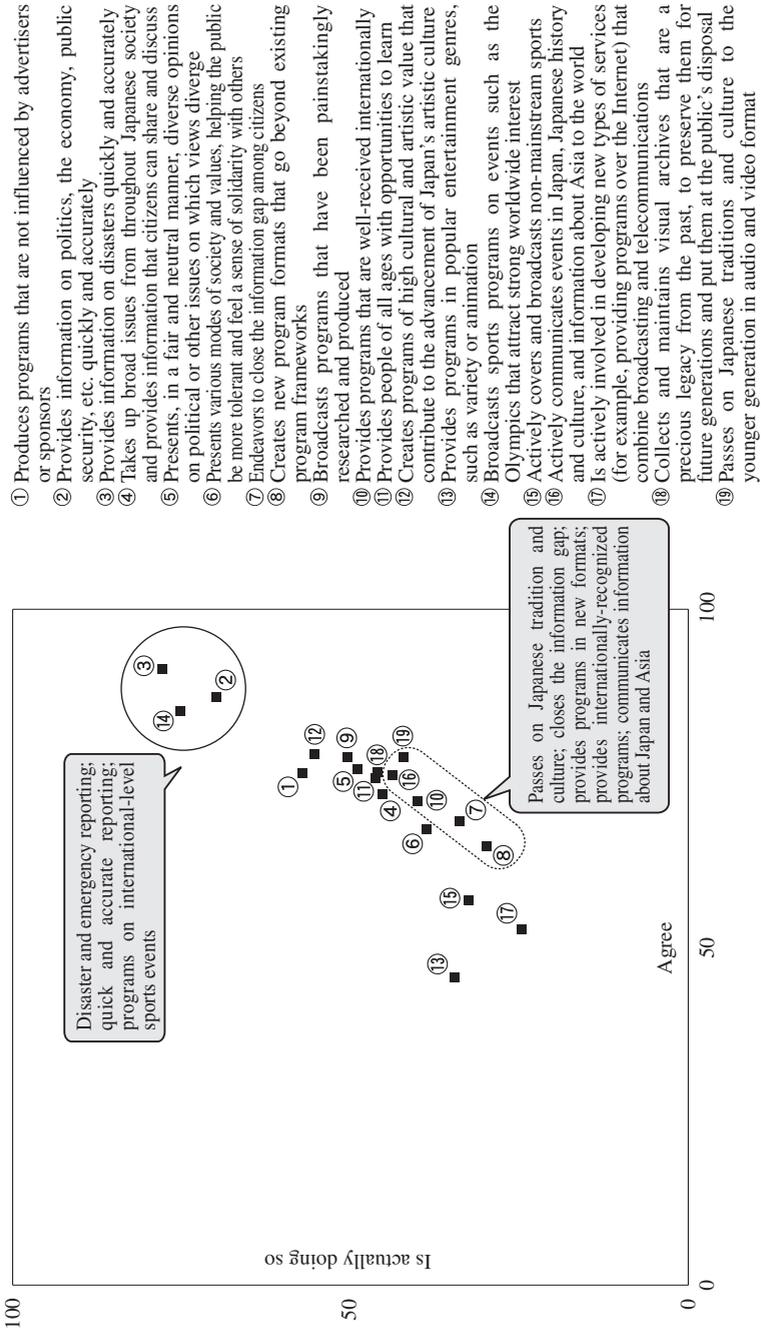
Audiences seek a variety of values from public broadcasting, and it is the role of public broadcasting to make those values a reality. This analysis clarified the public service values that NHK should fulfill and examined audience expectations of and satisfaction with NHK in this regard. It aimed to clarify NHK's position as a medium and guide directions for NHK as a public broadcaster in the future.

In this analysis, NHK's public nature was broken down into 19 categories and audience expectations of and satisfaction with NHK were measured for each one, as shown in Figure 7. NHK today is perceived by audiences as fulfilling many of the values of public broadcasting, but both expectations and satisfaction were very strong regarding broadcasting during emergencies or disasters, speedy and accurate reporting, and world-class sports. On the other hand, there were relatively large gaps between expectations and satisfaction relating to "passing on Japanese traditions and culture to the younger generation through audio and video," "trying to close the information gap that exists among the public," "creating new program formats that go beyond the existing program framework," "presenting programs that are well received internationally" and "actively communicating events in Japan, Japanese history and culture, and information about Asia to the world."

ASSESSMENT OF PROMISE 1: BETTER PROGRAMMING

This section examines the assessment method and the criteria used for assessing performance on each of NHK's six promises. It discusses only the first promise on the list, and because of space limitations, we refer the reader to the Committee's assessment report on NHK's promises in 2005 for more detail on the remaining promises. (See the Committee website: www3.nhk.or.jp/pr/keiei/yakusoku/index.html.)

Figure 7. Value of Public Broadcasting from Audiences' Perspective



Approach to Assessing Promise 1

In its first promise, NHK undertakes to “create more and better programs consistent with receiving fees paid,” but this is difficult to assess directly. Accordingly, we divided this promise into two parts—“more and better programs” and “consistent with receiving fees paid.” We also changed the latter part to “satisfaction with (NHK) as public broadcasting” and then asked respondents to evaluate these from their perspective. Making “more and better programs” a reality requires that as many people as possible watch and listen to NHK programs, and to determine how much people tune in to NHK we assessed this element by evaluating time spent viewing or listening and audiences’ contact ratio. We also assessed “more and better programs” by measuring audience expectations and satisfaction levels. Accordingly, we looked at “more and better programs” based on these three assessment items.

Regarding “satisfaction with (NHK) as public broadcasting,” we measured the extent to which NHK has met expectations regarding “providing information helpful for decision-making about issues,” “better reporting in emergencies,” “better broadcasts for regional areas,” “broadcasting that better meets the needs of seniors and disabled persons,” and “better educational broadcasting,” which are sub-items in Promise 1. We assessed these items through comparison of the steps that NHK has taken regarding these issues and respondents’ overall expectations of and satisfaction with them. It should be pointed out, however, that in the case of better educational programs or broadcasts for people with disabilities, for example, these promises were rated not only by children and their parents, or by disabled people, which are the direct audiences of those programs, but by everyone. Promise 1, accordingly, was assessed on eight axes.

Assessment of Assessing Items

Time spent viewing or listening and contact ratio

NHK data on audiences for NHK programs indicates that long-running, traditionally popular programs such as “Kohaku Uta Gassen” [Red and White Singing Contest], “Taiga Drama” (year-long serialized sagas), and the regular 7 o’clock morning news have maintained consistently high levels. But overall, both time spent viewing or listening and weekly contact ratio have not risen compared to previous-year figures. Examining the NHK audience structure by gender and age shows that there is a heavy concentration in the 60 and above age bracket compared to commercial broadcasters, and it is clear that NHK programs do not attract a broad-based cross-section of the public. For this reason, this item was scored a 2.

In general, maximum customer expectation (CE) is 100 percent and assess-

ment was made from there downward. The ideal for customer satisfaction (CS) is achieving 100 percent satisfaction, but in the case of NHK programs it is difficult to identify the beneficiaries. In addition, in the case of public broadcasting there may be satisfaction not necessarily connected with the direct benefit of viewing or listening. With this in mind, we decided that any figure 50 percent and more overall would indicate strong satisfaction, because this study also measures overall satisfaction among people who are not among NHK audiences. In this report, therefore, the standards listed below were used for converting the results of the Committee's audience surveys into assessment scores.

Expectation level 5: 80-100%	Satisfaction level 5: 50% or more
Expectation level 4: 60-less than 80%	Satisfaction level 4: 40-less than 50%
Expectation level 3: 40-less than 60%	Satisfaction level 3: 30-less than 40%
Expectation level 2: 20-less than 40%	Satisfaction level 2: 20-less than 30%
Expectation level 1: 10-less than 20%	Satisfaction level 1: 0-less than 20%

Expectations of NHK programs

To assess this item, the Committee included a question concerning audience expectations of "more and better programs consistent with receiving fees paid" in their survey. In reply, expectation (total for "Have strong expectations" and "Have expectations") totaled 66.2 percent among respondents overall. What is noteworthy about this degree of expectation is that while expectations were relatively low among those in their teens and 20s, expectation levels were still around 50 percent, indicating strong expectations of NHK among age groups that supposedly do not watch or listen to NHK very much. Because of the strong levels of expectation among a broad range of age groups, this item rated a score of 4.

Satisfaction with NHK programs

For this item, the Committee included the same question as above, this time concerning satisfaction, in the audience surveys. Results show that satisfaction with programs overall (total for answers "Very satisfied" and "Satisfied") was identical for NHK (47.4 percent) and commercial broadcasting (47.5 percent) overall. But whereas satisfaction with NHK programs was 62.3 percent among those aged 70 and over, it was 31.7 percent among those aged 20-29. There was a large age-based gap, and younger people tended to have lower satisfaction levels.

In terms of assessment of the various NHK channels, satisfaction with NHK General was 60.3 percent overall, 39.8 percent overall for NHK

Educational, and 20.3 percent overall for NHK Radio 1. In 2005, the weekly contact ratio was 61.9 percent for NHK General, 28.9 percent for NHK Educational, and 19.7 percent for NHK Radio 1. These results show that the value of programs on NHK General and NHK Radio 1 was rated in proportion to the contact ratio, and that satisfaction with NHK Educational programs was higher than the contact ratio.

Regarding satellite broadcasting, satisfaction was at levels corresponding to contact ratios, but whereas satisfaction among those with access to satellite broadcasts was a little over 30 percent, few expressed strong satisfaction (“Very satisfied”).

Satisfaction with programs overall was at the same level as for commercial broadcasting, and while satisfaction with each channel corresponded with the contact ratio, we gave this item a score of 3 because contact was not increasing among age groups under 40s.

Assessment of items 4 to 8 below was done through questions on the Committee’s audience surveys. Although answers to the questions yielded high scores for expectations, satisfaction was not as high. This disparity led to differences in assessments, and scores were also adjusted based on data from sources other than the audience surveys. The following shows how assessment of these items was determined.

“Providing information helpful for decision-making about issues”

Although expectation for this item was high in the audience surveys, satisfaction with the steps taken by NHK toward this rated only 43.0 percent. Therefore, this item obtains a score of 4.

“Better reporting in emergencies”

In the audience surveys, expectation regarding this item was 80.3 percent overall, and satisfaction with steps taken by NHK was 60.0 percent. Everyone, regardless of gender or age, considered the role of NHK in emergency or disaster reporting important. A survey by the NHK Broadcasting Culture Research Institute has also documented that people living in areas actually affected by natural disasters find NHK’s emergency disaster reporting helpful. Based on this, the score for this item is 5.

“Better broadcasts for regional areas”

According to the audience surveys, expectations of NHK on this item were 64.9 percent overall and satisfaction with steps taken by NHK was 37.8 percent. Compared to other items related to better programs, both expectation and satisfaction were relatively low. The Committee also inspected NHK

regional stations and observed that NHK's strength is communicating local information nationwide, contributing to regional areas in ways that commercial broadcasters cannot. On the other hand, where programs targeted at regional areas are concerned, the emphasis is on late afternoon live programming in each area. These programs, however, have difficulty competing with commercial broadcasters' programs in the same time slots. Based on these observations, the score for this item is 3.

“Broadcasting better meeting the needs of seniors and disabled persons”

According to the audience surveys, expectations regarding this item were 70.0 percent overall, while satisfaction with the steps taken by NHK stood at 37.1 percent. Based on a comparison of these assessments, this item gets a score of 3.

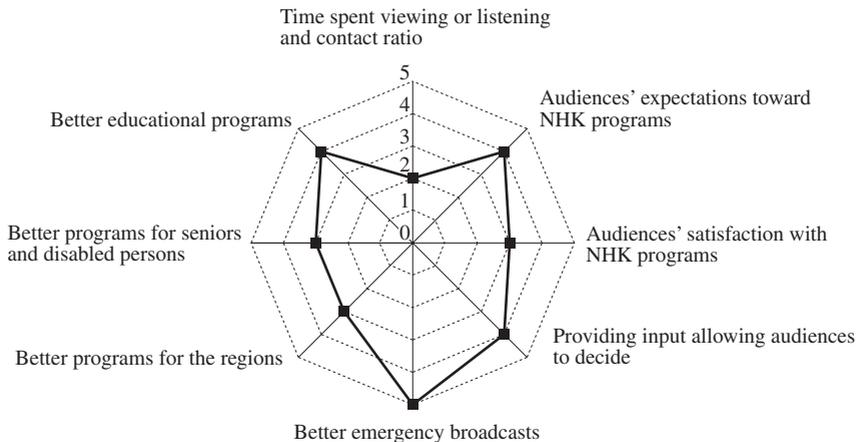
“Better educational broadcasting”

The audience surveys revealed that expectations and satisfaction with this item were similar to those for the preceding item. But satisfaction rates among women in their 20s and 30s, a large proportion of whom have young children, were 44.7 percent and 48.8 percent, respectively. Data from the NHK Broadcasting Culture Research Institute also shows that the vast majority of programs watched by young children is broadcast by NHK Educational and is very influential. For this reason, this item is rated a 4.

Overall Assessment of Promise 1

Assessments for the items on performance for Promise 1 are shown in Figure 8 below.

Figure 8. Assessment of Promise 1: Better Programming



INSIGHTS FROM ASSESSMENT OF THE PROMISES

This section summarizes the impressions of the Committee after performance on NHK's promises had been assessed and NHK's reaction to the assessment, and explores how the promises can be assessed in the future.

Outcome-oriented

Where assessment is concerned, there is usually a difference in perspective: NHK has a strong desire to be assessed on its actual efforts (input and output), whereas the Committee's assessment focused on the extent to which the final goal has been realized (outcome) from the standpoint of viewers and listeners. In particular, the year 2005 being the first year that NHK's promises were assessed, NHK made its promises, after which the Committee was established to assess them. Therefore, the promises themselves were probably formulated without thinking ahead that they would be assessed. Consequently, discrepancies arose between the assessment items that NHK expected and those that the Committee actually chose, leaving NHK frustrated. For example, in Promise 1 the Committee assumed that audience assessment was important. But NHK views audience assessment as a long-term endeavor, and something that cannot be assessed over a short period of three years. NHK maintained that the intent and quality of individual programs should have been taken into closer consideration instead. When the promises were formulated, they were not predicated on assessment. The promises should be structured, however, based on outcome and figures, but in this case assessing the promises was difficult because many of them were not thus structured.

PDCA Cycle

Just as important as outcome in assessing an organization is the PDCA (plan-do-check-act) cycle. The question here is whether a continuous cycle for setting goals and for managing, assessing, and reviewing progress of reform exists within an organization, in other words, whether there is an autonomous system in place within the organization for identifying and solving problems when they occur. From this viewpoint, it is true that NHK has promised many reform measures and taken steps to make changes. But some of the promises and their sub-items are one-off and lack clear explanation as to the motives for carrying them out. That is, it appears that these promises were not formulated from within the PDCA cycle by the departments that drew them up.

PDCA cycles include some that work over a short term of one year or so, over the medium term, of three years as in the case of this assessment period, or long-term, over a span of 10 years. The promises should have been drawn

up according to these cycles, but they give the strong impression of having been formulated independently and without internal coordination.

The NHK Organizational Culture

One aspect of NHK that made a strong impression on the Committee was its organization and the organizational culture it has fostered. In a word, the organization consists of strictly vertical hierarchies. Employees in management, reporting, production or programming stay within the framework of their respective departments from the time they are hired, and are transferred and advance solely within their “home” department. As a result, everyone from rank and file employees to senior officers is a “specialist,” and no one feels any desire to take a broad look at the organization as a whole. Even in the central government ministries, which are vertical hierarchies in their purest form, senior officials are expected to have well-rounded knowledge of all kinds of procedures and jobs. At NHK, the vertical hierarchy impedes horizontal cross-organization communication.

However, at NHK, communication between top management and ordinary workers is inadequate even within the various vertical hierarchies. Executive directors and managers have been going out to the front lines since the promises were announced to talk about NHK management and reforms, but this has not changed the organizational culture yet. The information gap between superiors and subordinates remains, and interviews revealed that the younger employees were, the more conscious they were of this gap.

The problems that NHK faces today concern the entire organization. How NHK works, the issue of improprieties, making the organization more efficient—these are core issues. Nevertheless, the promises made to deal with these problems have been generated out of sectionalism. For organization-wide problems, an organization-wide response is needed.

NHK’s Response to the Report Assessing Its Promises

The foregoing describes rather negative impressions, but the Committee also recognizes that many NHK executives and employees are sincerely committed to fulfilling NHK’s promises. The Committee report also details how all employees called on NHK audiences, senior executives visited the front lines and described NHK’s renaissance plan, and meetings were held with viewers and listeners, and gives these efforts high marks. It is fair to say that the entire organization has been mobilized to deal with the crisis that was sparked by a string of improprieties.

Since publication of the Committee’s report, employees who were inter-

viewed and even contract workers were aware of it and had actually read it. That too is proof that NHK is changing.

NHK is also beginning to accept the outcome-based concept that was stressed throughout the report. For example, up to now NHK has sponsored many events in an attempt to develop a closer relationship with audiences. Records were kept of how many people attended these events, but no surveys had ever been done to gauge satisfaction among those attending. But since 2006 visitor questionnaires have included this topic, so it has become possible to learn about degree of satisfaction, demonstrating that NHK has begun to accept the outcome-based concept.

Further, NHK's budget for the 2006 fiscal year included allocations, albeit not very large sums, that will make it possible to do surveys such as the one above and carry out other recommendations based on the Committee's report.⁷ The NHK Management Committee, when considering promises for 2006, also stresses setting specific goals and clear yearly targets.

Nevertheless, in the 2006 Promises, possibly because the assessment emphasized specifics and potential for fulfilling promises, there was an increase in business volume targets (output) for the work that NHK actually does, rather than performance goals (outcome) from the perspective of audiences.

NHK's Promises for 2006

Since "outcome" and the "PDCA cycle" have been emphasized in the assessment of the 2005 promises, the following summarizes the action plan for other areas formulated by the Committee.

Creating a management supervision framework

Through the assessment process, the Committee became aware that efforts to reform operations and improve compliance still depend on individual employees and that a system for management supervision in the strict sense has not yet taken root within the organization. Many employees believe there are problems with the current management organization. Employee management that can foster a sense of cohesion—better information sharing, smoother communication, a more open organizational culture, and a more vigorous organization—is required.

In particular, NHK itself must develop a stronger awareness of public broadcasting. In the audience surveys, the top-ranking answer was that "everyone at NHK must know and be aware that its operations are funded by

⁷ The amount budgeted for this is 500 million yen.

receiving fees paid by audiences” in order to regain the public’s trust. To make this a reality, NHK should take steps such as setting common objectives for the organization. One way of doing so would be to formulate overall organizational objectives as well as individual objectives that are as specific and quantitative as possible, and to introduce a management-by-objective system in line with organizational objectives.

Reforms from the long-term perspective

Two elements characterizing NHK have caused the organization to lose sight of the long-term perspective: single-year budgets, and the way that it functions as an assemblage of specialist departments, each of which tends to focus only on its own affairs. Even though it is a public corporation, NHK needs to develop a business-oriented outlook and operate from a long-term viewpoint.

The same can be said of program production. NHK should review programs every six months or every year on a continuing basis as it is currently doing. But changes in the lifestyles and behavior of viewers and listeners take place over the long term, so it also needs to be aware of these changes and develop programs with an innovative approach that fits the values of diverse generations.

Innovation should not be restricted to programs either. More varied approaches are needed in everything from program delivery methods, for example, going beyond the traditional broadcast media and presenting programs over the telecommunications infrastructure, to making more extensive use of program archives.

A new kind of public broadcasting

NHK’s management and organizational problems, its programs, and the receiving fee system are ultimately connected to the issue of what constitutes public broadcasting. Viewers and listeners are fully cognizant of the necessary presence of NHK as a public broadcaster but at the same time they expect public broadcasting to fulfill various roles. Simply trying to respond to audience expectations fails to give a clear picture of the type of public broadcaster that NHK should become.

NHK must realize that it should start thinking now of the form of new public broadcasting for a new era. The time has come for NHK, as the party involved, to sketch out its ideas in this direction.

(Translated by Julie Kuma)

REFERENCES

- Arrow, K., R. Solow, P. R. Portney, E. E. Leamer, R. Radner, and H. Schuman. Report of the NOAA Panel on Contingent Valuation, 1993.
- British Broadcasting Corporation. Annual Report, www.bbcgovernors.co.uk/annreport/index.html.
- British Broadcasting Corporation. Human Capital, Measuring the Value of the BBC, October 2004.
- British Broadcasting Corporation. "Building Public Value," 2006.
- Delaney, L. D. and F. O'Toole. "Irish Public Service Broadcasting: A Contingent Valuation Analysis," *Economic and Social Review* 35 (2004), pp. 321-35.
- Finn A., McFadyen S., and Hoskins C. "Valuing the Canadian Broadcasting Corporation," *Journal of Cultural Economics* 27:3-4 (2003), pp. 177-92.
- Foster, R., J. Eagan, and J. Simon. "Measuring Public Service Broadcasting," in D. Tambini and J. Cowling, eds. *From Public Service Broadcasting to Public Service Communications*, Institute of Public Policy Research, 2004.
- Miyahara, S., M. Tsuji, and F. Taoka. "An Economic Evaluation of Japanese Telemedicine," *Journal of Telemedicine and Telecare* 12:suppl. 1 (2006).
- Miyahara, S., M. Tsuji, C. Iizuka, T. Hasegawa and F. Taoka. "On the Evaluation of Economic Benefits of Japanese Telemedicine and Factors for Its Promotion," *Journal of Telemedicine and e-Health* 12:6 (Jan. 2007).
- NHK "Promises" Assessment Committee. "Report of NHK 'Promises' Assessment in 2005," forthcoming.
- Ofcom. *The Ofcom Review of Public Service Broadcasting (PSB) Television*, www.ofcom.org.uk/tv/psb_review/
- Onoe, H. and Y. Sakamoto. "The Social Benefit of TV," *Studies of Broadcasting* 15 (1979).
- Tsuji, M., W. Suzuki and F. Taoka. "Project Evaluation in the Field of Telemedicine," in *Research on Policy Priority in an Aging Society: From the Common Viewpoints of Japan and the United States* (in Japanese), National Institute of Research Advancement, 2004.
- Tsuji, M., F. Taoka, C. Iizuka, and M. Teshima. "The Willingness of Japanese Citizens to Pay for e-Health Systems," *Journal on Information Technology in Healthcare* 4:2 (April 2006), pp. 103-110.
- Tsuji, M., Y. Ichikawa and S. Miyahara. "An Evaluation of Japanese Public Broadcasting Service by CVM," mimeograph, 2007.
- Work Foundation. "Willingness to Pay for the BBC during the Next Charter Period," unpublished report, 2006.