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CHAPTER 1 INTRODUCTION

1.1 Public Service Broadcasting (PSB) at the Turn of the Century.

The public service broadcasting in most western European countries is in a state of flux, if not in any crisis (Brants, 2003; Collins, et al. 2001). The convergence of broadcasting and telecommunication, the switch from analogue to digital communication, and the changes associated with globalization and privatization —all leads it more difficult to define the concept of public service (Bardoel & D'Hanenes, 2004; Collins, et al. 2001; Brown, 1996b). In addition to the challenges caused by material forces, PSB is also challenged on the ideological ground, say, a shift in mentality from liberalization/ democratization to postmodern/ neoliberal sentiments that may have profound implications for the type of cultural policy regulation of which PSB is a part (Syvertsen, 2003). Both the material and nonmaterial forces cause the legitimacy of PSB being challenged and undermined and consequently made public financing for PSB become stagnated, and altered the context to which broadcasters and policy makers must respond (Croteau & Hoynes, 2001).

However, the development of public service broadcasting in Taiwan is opposite to that of the Europe. After passing the Amendment of Broadcasting & Television Act in 2003 in which the government, military, and political party were required to withdraw from the terrestrial television, the idea of launching a larger scale of public service broadcasting in Taiwan emerged (Cheng, 2005). On July 1st 2006, Taiwan Broadcasting System (TBS 台灣公共廣播電視集團) is established by the merge of Public Television Service Foundation (PTS) and Chinese Television System (CTS), which is government-owned in the previous 35 years. Furthermore, Hakka TV, Indigenous TV and Taiwan Macroview TV also joined TBS in the beginning of 2007. It seems to be a satisfying result to counterbalance and to fight against the over market-oriented media environment in Taiwan. However, it also confronted with the embarrassment of lacking substantial and stable public investment fund that can promise the practice of public value without the intervention of commercial and political force.

As far as the fund is concerned, there never come out an agreement about how much a reasonable public funding should be, and the funding mechanism still leaves room for debate. To what extant should the government budget for the public broadcasting every year, or to say, how much should the public fund to invest in public broadcasting, still remains a significant media policy controversy. It is also suggested that TBS should collect the so called "license fee" rather than rely on the annual budget from the government, just like what BBC and NHK have done for decades. By the collection of license fee, the civil right can be protected and the production of high quality program can be ensured. However, since the audiences in Taiwan have got used to the free access to terrestrial public broadcasting, having the audiences to pay for the public broadcasting service would undoubtedly a failure--unless the audience can perceive the concrete value of and can state their preference to public service broadcasting.

Although the benefits to which PTS was designated to accomplish are clearly stated (PTS, 2007a; Harrison & Woods, 2001; Coppens, 2002), yet empirical evidence of the claimed benefits is seldom pursued in the literature so far. The lack of quantification is due to the inherent difficulties of valuing the non-traded good. To estimate the value of PTS, or to say, the benefit that the citizen perceived, this research conducts the Contingent Valuation Methodology (CVM) and elicits the citizen's willingness to pay (WTP) for PTS.

1.2 Purpose of the Study

To understand whether people hold positive values for public service broadcasting which have limited apparent personal economic relevance, this study employ the reveled-preference technique (e.g. CVM) eliciting the participants' willingness to pay (WTP) for public service broadcasting to estimate the value of PTS. This study discusses only the value of PTS instead of the TBS as a whole because the TBS has been established simply for one year and is still not very well recognized by Taiwan citizens. In this research, the terms "PSB" and "PTS" must be clearly defined that "PSB" is a conceptual term and "PTS" (the abbreviation of「公共電視台」) is the practice of PSB in Taiwan and is the operational definition of PSB in this study.

Actually, the implication of WTP is two-fold: <u>to the audience, the WTP can be the seen as the benefit that they derived from program receiving; to the broadcasters, WTP can be regarded as the value generated from program production.</u> As a result, WTP can be further used in other analyses. Take Japan's studies for example, researchers use the result of audiences' WTP for TV watching to conduct the cost-benefit analysis for broadcasting industry (Hisao et al, 1993). A recent case can be found in NHK. In the evaluation of NHK's achievement of their promises, the amount of NHK audiences' WTP serves not only an indication of audiences' evaluation, but serves as the numerator considering their Value for Money (VFM) as well. (see NHK"約束"評価委員会，2007).

It has been 9 years since PTS, Taiwan's first public service broadcasting institution, introduced its public service. Although the contribution of PTS is "invaluable" to the civil society, this study is intended to have it "valuable" to see if people hold positive value toward the service. Owing to the fact that it is the commercial broadcasting that dominant the media market and PTS is strongly threatened by the commercial counterparts, people's attitude toward commercial broadcasting seems to be a potential determinant for interpreting value of PTS. In brief, the purpose of the study is:

(1) to estimate the use and nonuse value of public service broadcasting in monetary term by eliciting Taiwan citizen's willingness to pay.

In addition to the estimation of WTP, other purposes of this study are to:

(2) to find out what kind of public service broadcasting functions that citizens emphasize, and see whether their expectation of PTS and satisfaction with commercial broadcasters influence their WTP; and

(3) to examine the influences of citizen's socio-economic characters, media usage behavior and attitudes, and see to what extent these variables may affect their WTP.

1.3 Research Methods and Data Sources

To answer the research questions, a national wide telephone survey is conducted by Research center for Survey Research, Academia Sinica in December 2007. Respondents' socioeconomic characteristics, attitudes and opinions are collected to get a holistic view on how people perceive PTS in Taiwan. To know how these characteristics influence their willingness to pay for PSB, probit regression model is used as an analytical tool to examine the influence of these determinants. Finally, individual’s willingness to pay for PSB is estimated with the empirical model which is developed under the notion of welfare measures proposed by Hanamann (1984).

1.4 Structure of Research

This study proceeds with a discussion of the relevant literatures on media accountability and on contingent valuation methodology in Chapter 2. After the literature, the survey procedures are explained in Chapter 3, the results of the survey are described in Chapter 4, and the empirical model is presented in Chapter 5. Finally Chapter 6 concludes with the discussion of the main findings.

CHAPTER 2 LITERATURE REVIEW

When broadcasting was invented in 1920s, it soon turned out to be the most highly regulated industries in every country for its cultural and political importance. Public service broadcasting (PSB), without exception, was designated to transmit and to produce the programs that "**educate, informs, and entertain**" the audiences (Holtz-Bacha & Norris, 2001). Taiwan Public Television Service Foundation (PTS), founded in 1998, operated as an independent public organization and launched the public broadcasting service with the following mission statements (PTS, 2007a: p7.):

(1) to produce and broadcast diverse and quality programs,

(2) to promote the development of a civil society,

(3) to inculcate national cultural values, and

(4) to broaden international culture exchange.

The benefits to which PTS was designated to accomplish are clearly stated, yet empirical evidence of the claimed benefits is seldom pursued. In this chapter, we are going to review the literatures on why the value of PSB should be examined, and why Contingent Valuation Methodology (CVM) is appropriate for the evaluation of PSB. The procedure of conducting CVM, its advantages and disadvantages will also be introduced. Finally, studies using CVM to estimate the value of PSB in the existing literature are reviewed as well for further discussion.

2.1 Literature Review on the Accountability of PSB

2.1.1 Identity Crisis of Public Service Broadcasting

A brief definition of "what public service broadcasting is" can be found in the Broadcasting Research Unit (BRU) pamphlet presented in 1985. In the document, BRU provided eight principles that PSB should follow regardless of whatever system they are in. The eight principles are (BRU, 1985; cited from Brown, 1996a):

(1) universal accessibility (geographic);
(2) directly funded by the viewing and listening audience;
(3) independence from government vested interests;
(4) universal appeal (general tastes and interests);

(5) particular attention to minorities;

(6) contribution to sense of national identity and community;

(7) competition in good programming rather than for numbers; and

(8) guidelines that liberate rather than restrict program makers.

The first three items reflect the relationship between the government, the audience, and the broadcaster; the rest items indicate the philosophy of program production. Follow those principles, Tracey (1998, p. 26-32) provides the similar viewpoints suggesting PSB should operate independently and distant from the government's intervention.

Syvertsen (2003) illustrates three key characteristics describing PSB in terms of structure: first, PSB are certain companies or institutions entrusted with a set of privileges to insulate them to some degree from the market factors, these privileges may be of an economic (public funding) or technology nature; second, PSB are obligated to fulfill certain obligations (universal coverage, high-quality programming, national culture identity protection, and so on) in return for the privileges; third, PSB are subjected to certain forms of governance which is set to assess the performance of the privileged institution and ensure that obligations are interpreted in accordance with the general consensus.

Although there are guidelines suggesting what a public broadcasting should be, the forms of PSB vary from country to country and also from time to time. For example, in the U.S. the public broadcasters are outlets for the programs the commercial broadcasters will not pursue. In contrast, the public broadcasters in the European countries are considered as public service akin to public education and public spaces (Nordicity Group Ltd, 2006). Harrison & Woods (2001) reviewed the European Community (EC) documentations concerning the merit of PSB and found that the documents show some degree of consensus about the importance of PSB, but no legal standards or practical guidelines exist which could allow a coherent definition of PSB in EC. For example, the 1997 Amsterdam Protocol states that it is up to national governments to determine the funding and mandate of public service broadcasting institutions in their respective countries (Harrison & Wood, 2001; Syvertsen, 2003).

In addition to the disagreements of PSB merit among countries, the shift of PSB is also observed in the evolution of television (Jakubowicz, 2003). All the arguments provided above ascertain the dynamic nature of the role of PSB. In fact, the real problem in defining PSB is not how to improve the list of public service principles, but rather HOW to apply the principles (Raboy, 1995). In other words, to prevent the PSB from suffering the “identity crisis”, it is necessary for PSB to return to even more fundamental value regarding broadcasting and its role in society. Strange enough, however, many critics tend to define PSB from the perspective what it should NOT be. As Croteau & Hoynes (2001) describe:

> *If media industry is different, in most respects, from other industries, the underlying conceptual reason is that media outlets have a distinctive relationship with the public. Rather than simply supplying consumer goods in a free market context, media in a democratic society are expected to serve the public interest. It is no small task to define what public interest means or how our mass media can serve in this capacity. In fact, critics often find it easier to identify* ***what is not in the public interest—****too much violence in television or news that is too focus on the crime, for example—than to explain what serving the public interest entails (p.33).*

The dynamic nature of public service broadcasting is also reflected in the amendment of Public Broadcasting Act in Taiwan. The draft of the Amendment brought up by PTS shows a tendency to broaden the definition of public service broadcasting (Government Information Office, 2005). The current Act for PTS defines that public service TV is to serve as a compensation for the insufficiencies of commercial television (Act of PTS, 2004). This kind of definition regards PTS is at best a supplement filling the gaps disdained by profit-making broadcasters and, from the viewpoint of PTS, is not comprehensive enough to capture the full mandate of PSB. As a consequence, PTS suggests an amendment of this article that broadens the subject of regulation from PTS to PSB, and redefines that PSB is to form a balanced media environment.

2.1.2 Reaction: Media Accountability

The trend of redefining PSB also sheds new lights on the awareness of pursuing “accountability” in PSB management. Media accountability has gained considerable attention over the last decade. Bardoel & D'Haenens (2004) proposed four accountability mechanisms: *political*, *market*, *professional* and *public accountability*, and examined how the accountability mechanisms have been taken into practice in Western Europe. Public service broadcasting, with the very name of "public", has already suggested the strong emphasis on public accountability. Public accountability places emphasis on the need to maintain a more direct relationship with the citizen, in addition to the relationship with the state and the market (Bardoel & D'Haenens, 2004). In other words, PSB should get rid of the "paternalism" mindset ignoring the citizen's popular taste and culture, and show their willingness to be measured and evaluated instead.

Measuring the public service broadcasting is never easy considering the complexities of consumer benefits. Hastings (2004) proposed that measuring the consumer benefits is directly aligned to the perception of value attained by the viewing experience, and such a benefit also indicates the extent to which a consumer surplus is delivered by the public service broadcasting. The most often quoted terms used for the measurements of audience are *reach* and *share*. Compared with *reach* which addresses the fundamental tenets of PSB—universality, *share* seems to be a less appreciate measure while it allows the comparison of popularity with commercial sectors. Whatever term is used, they both capture neither the quality of the program nor the enjoyment of the viewers.

To carry out a measurement that captures the value or enjoyment of programs, some PSB conduct quality surveys inquiring audience's attitude regarding the quality of the programs, and their enjoyment and satisfaction on the programs. TvQ adopted by PBS, AI (Appreciation Index) by BBC, EI (Enjoyment Index) by CBC, and the Program Appreciation Index by RTHK are all examples of attitudinal-based measurements. All the measurements are used to counterbalance the PSB's over leaning on rating.

Hastings (2004) proposed an *input-output-outcome model* illustrating the consumer benefits:

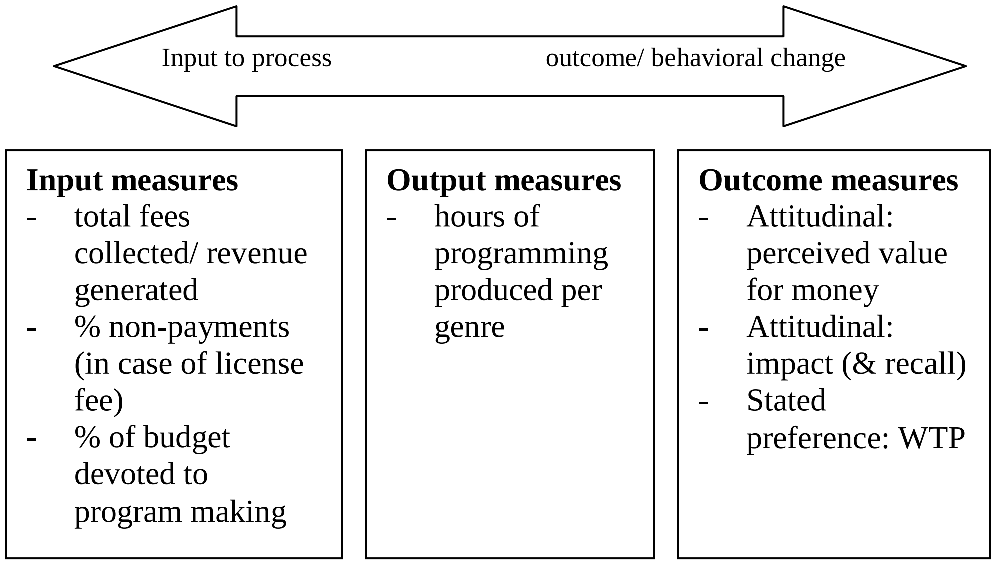


Figure 1: Illustration-- tracking consumer benefits

Source: “Discussion of performance measures in public service broadcasting,” by C. Hastings, 2004, *Aslib Proceedings, 56*(5), 307

As is shown in Figure 1, consumer benefits of PSB can be measured by both outputs and outcomes which rely less on capturing the quantity but more on the audience perception of quality and perception. WTP, as one of the outcome measures, can help illustrate the consumer surplus in PSB. In this regard, the estimation of WTP is not only meaningful to the outcome, but also indicative of efficiency and effectiveness of input. In a democratic society, the usage of public fund should under scrutiny so that the effectiveness of the public organization is ensured.

2.1.3 Forms of Public Fund

Public funding can be achieved via many options. According to the Legal Department of European Broadcasting Union (EBU), the different sources of funding includes the license fee paid by the viewer, the concession fee paid by commercial operators, allocations from the government budget, advertising, sponsorship, subscriptions fee for pay services, and some other revenues from program sales, teleshopping, merchandising and so on. Most European countries adopt the mixed funding to prevent the over-reliance of one particular source of funding which might run the risk of undermining the independence of PSB. Another reason supporting the mixed funding is that a mixed system is more robust in a rapidly changing environment (EBU, 2000).

2.1.4 Is Direct Grant Appropriate?

Most countries adopt either the license fee or the government grant as the main funding mechanism for the PSB, seldom do the two mechanisms coexist in a single country. It consequently leads to some discussions regarding the appropriateness of the two funding options. Graham & Davis (1992) propose four considerations suggesting that the public funding should not take the form of a direct grant from government. With the considerations that PSB should keep at arm's length from the government and should be able to count on a predicable/secure source, Graham & Davis (1992, p.198-9) recommended that the adoption of the special tax, especially the license fee, is the most proper way of funding.

The consideration of the relationship between the government and media prevails not only in broadcasting but also in the press industry. Columbia Journalism Review, one of the leading quality publications, convened a panel of top editors and a media investor to discuss the future of newspapers in early 2007. In the panel, the discussion of whether press should be supported by government is presented, and the worry of government intervention is also expressed. But the conclusion made in the panel is optimistic, and believe that the benefit from the government support still have the possibility to outweighs the harm from government influence (Nordenson, 2007).

2.1.5 Public Funding Mechanism in Taiwan: A Comparison

Early in 1998 when PTS came to exist, media critics have been aware of the difficulties and potential challenges that PTS might confronted with. Kwan (1998) pointed out that the financial facet would be one of the most bothersome problems. Other problems would rise due to the unclear identity and poor knowledge and supports from the general public to the public TV service. Kwan analyzed possible financial resources and proposed charging the radio-wave tax to subsidize the PTS, realizing concept of using public goods (radio wave) to serve the public good (public interest) (Kwan, 1998).

The funding practice in Taiwan is much similar to the U.S. where most of the funding comes from the government grant and relay on audience's donation as well.

PTS receives the annual government grant of NT 900 million dollars as the primary income, other revenues include donation, product sales, rentals, grant from the Cable Radio & Television Development Fund, and so on (PTS, 2007a). The amount of government's grant constitutes 66 % of total revenue, but is far from satisfaction if it is compared with the expenditure.

Another problem for the government fund is that it is not subject to regular review, thus lead to the inflexible of the fund. Such a financial difficult goes from bad to worse when PTS incorporated CTS to form TBS. CTS, as a government-owned broadcaster, relies heavily on the advertising income. The reliance remains since there is no funding mechanism designed to react to the broadening of the PSB system.

The funding in Taiwan is poor not only in the mechanism but also in quantity. A calculation of per capita funding level shows that Taiwan's public investment in PSB is 39 NTD per person. Compared with the amount in Japan (1427 NTD) and Korea (389 NTD), the public find for broadcasting in Taiwan is relatively poor (PTS, 2007b). The international comparison incorporating the funding facts in Europe and Asia is provided in Appendix 1as a comparison.

PTS also recognize the crucial influence of public fund on their operation. In the draft of the Amendment brought up by PTS (Government Information Office, 2005), PTS advocates the need to ensure the current funding level from the government and the amount of funding should subject to a regular review taking the price index and annual projects into account, with the attempt to enable the funding policy "flexible" to respond to the dynamic media environment.

2.1.6 Funding Policy Corresponding to the Social Need

However, without robust evidence suggesting the value of the public broadcasting service, the debate of funding cannot but remains a "political issue" (O'Hagan & Jennings, 2003). That is the reason why Canadian Broadcasting Corporation (CBC) asked Nordicity Group Ltd to examine the financial sources provided by governments to public broadcasters in western countries. The result indicates that poor funding does not always lead to poor performance: while Canada appears to derive a significant benefit from public broadcasting, the PSB in Canada receives substantially less support than it does in most other countries (Nordicity, 2006).

Whatever form of public funding is adopted, there are some criteria that a proper funding should meet. The former president of EBU, Albert Schart, suggests four funding principles deserve ongoing discussion are (Schart, 1999: p.4-5):

(1) stability: the need for a stable funding framework;

(2) independence: safeguards against political and economic pressure;

(3) proportionality: funding corresponding to the need; and

(4) transparency: open procedures and public accountability.

The third principle “proportionality” implies that the amount of fund granted to PSB should be sufficient to ensure them to carry out their missions but should not go beyond what is necessary. Nonetheless, how to justify whether a certain amount is sufficient or not leaves room for debate.

It is also the reason why researchers from the discipline of economic adopted the methodology of contingent valuation (CV) to investigate the performance of PSB. CVM, although developed for estimating environment goods and public goods, is also employed to access the benefit of cultural projects for they share certain properties with environmental products (Noonan, 2003). Public service broadcasting, as the name suggests, serves as a public good in the society and can not be traded in the market. Besides, with the externalities that it brought to culture, democracy, community, empowerment and so on, it is also being regarded as a cultural good. As a result, many countries conduct the CVM through the expression of citizen’s willingness to pay for PSB to examine their funding policy and to justify the legitimacy of their PSB. The introduction of the methodology and its applications in public service broadcasting are provided and illustrated in the following section.

2.2 Literature Review on CVM and its Practice

Contingent Valuation Methodology (CVM) is a technique that allows the value of public goods or services, especially those cannot be traded in a real market place, to be estimated in terms of monetary. Value of goods, like environmental goods and cultural goods, cannot always be revealed by the transactions. As a result, their values are to be “stated” by consumer preferences rather than being “revealed” through the market mechanism. Among the methods dealing with the STATED PREFERENCE, CVM is one of the approaches that most commonly used. CVM can elicit both use and non-use value, and indeed is the only possible technique for the evaluation of non-use value (Markandya et al., 2002).

CVM can be practiced by providing individuals a set of hypothetical/ illustrative scenario, asking individuals their maximum amount of willingness to pay (WTP) or their minimum willingness to accept (WTA) for a given loss and damages (Mitchell & Carson, 1989). By doing so, individuals can state to what extent is their preference to the goods. CVM emerged in 1960s in the environmental economics literature and later attracted a great deal of attention from other areas of economics such as cultural economics & public good economics after the endorsement of the National Oceanic and Atmospheric Association (NOAA) panel chaired by Nobel laureate Kenneth Arrow and Robert Solow (Arrow, Solow, Portney, Leamer, Radner, & Schuman, 1993).

2.2.1 Use Value vs. Nonuse Value

Economists have generally settled the taxonomy of ‘total economic value’, which can be distinguished into **use values** from **non-use values** (Barbier, 1994)**.** Use value, as the name suggests, refers to the value that individuals make use of; however, nonuse value covers situations in which individuals do not make use, or intend to make use of any given assets. Individuals may just wish to see various entities conserved ‘in their own right’ (termed existence value), or conserve the entities on the basis of retaining options for future generations beyond (termed bequest value). Nonuse values do not have well-defined boundaries for it is outside the scope of conventional utilitarian economic thoughts (Turner, 2001).

Use values are usually expressed by the revealed preference (RP) while non-use values are expressed by the stated preference (SP). Unlike RP data, with SP surveys values may not be clearly defined prior to their measurement. SP instruments also limit the mode in which values can be expressed. SP surveys should thus be seen as vehicles that assist the contribution of values and enable their expression, rather than as instruments which reveal pre-existing values (Lockwood, 1998: p.293). In this study, use value is defined as the value that audiences derive from their own use of PTS, and nonuse value is defined as the benefit that PTS brought to the society.

2.2.2 Welfare Measures: WTP v.s. WTA

In theory, with an improvement of utility U_0 to U_1, as shown in figure 1, the maximum amount of money that the individual is willing to pay to secure this improvement is the compensating surplus (CSU). In contrary, if the individual has the utility of U_1 and considers it a loss to give up the improvement, than the minimum amount of a monetary compensation is the equivalent surplus (ESU). In practice, CSU is expressed in the elicitation form of WTP and ESU of WTA.

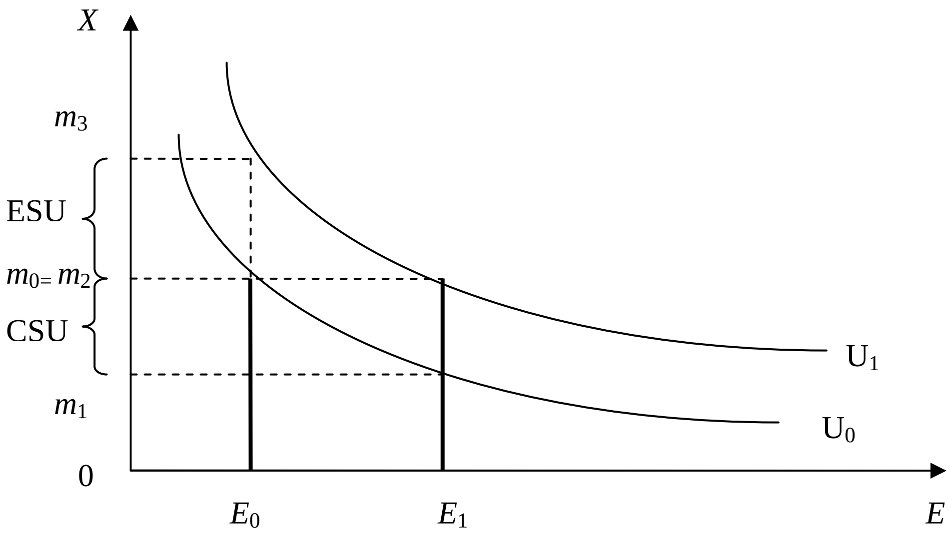


Figure 2: Compensating surplus (CSU) and equivalent surplus (ESU).
Source: *Environmental economics of for sustainable growth: a handbook for practitioners* (p. 424), by A. Markandya, et al., 2002, MA: Edward Elgar Publishing.

Choosing a proper welfare measure according to the property rights structure from the status quo position is important. It is worth mentioning that there is a disparity between the amount of WTP and WTA, even though the target of evaluation is the same. It has been proved that the amount of WTA is higher than WTP for several times (Hanemann, 1991; Cummings, Brookshire & Schulze, 1986) , given the fact that WTA measures are not constrained by income and respondents may give a tendency to overbid. Although WTP and WTA are both evaluations that can be seen in the literature, it is WTP that more recommended by the researches (Mitchell & Carson, 1989; Arrow et al., 1993; Cumming, Brookshire & Schulze, 1986) because the WTP approach is more similar to the transaction scenario in the real world, the result of WTP is said to be more convincing and valid than the result of WTA.

2.2.3 Commissioning a CVM Study

The research process of CVM is illustrated as follow: the research has to decide the object to be valued, and establish the hypothetical scenario. The respondents will state how much their WTP is for the evaluated object, and finally, the data will be collected and calculated to estimate the value. The process of a CVM research is illustrated in the following figure:

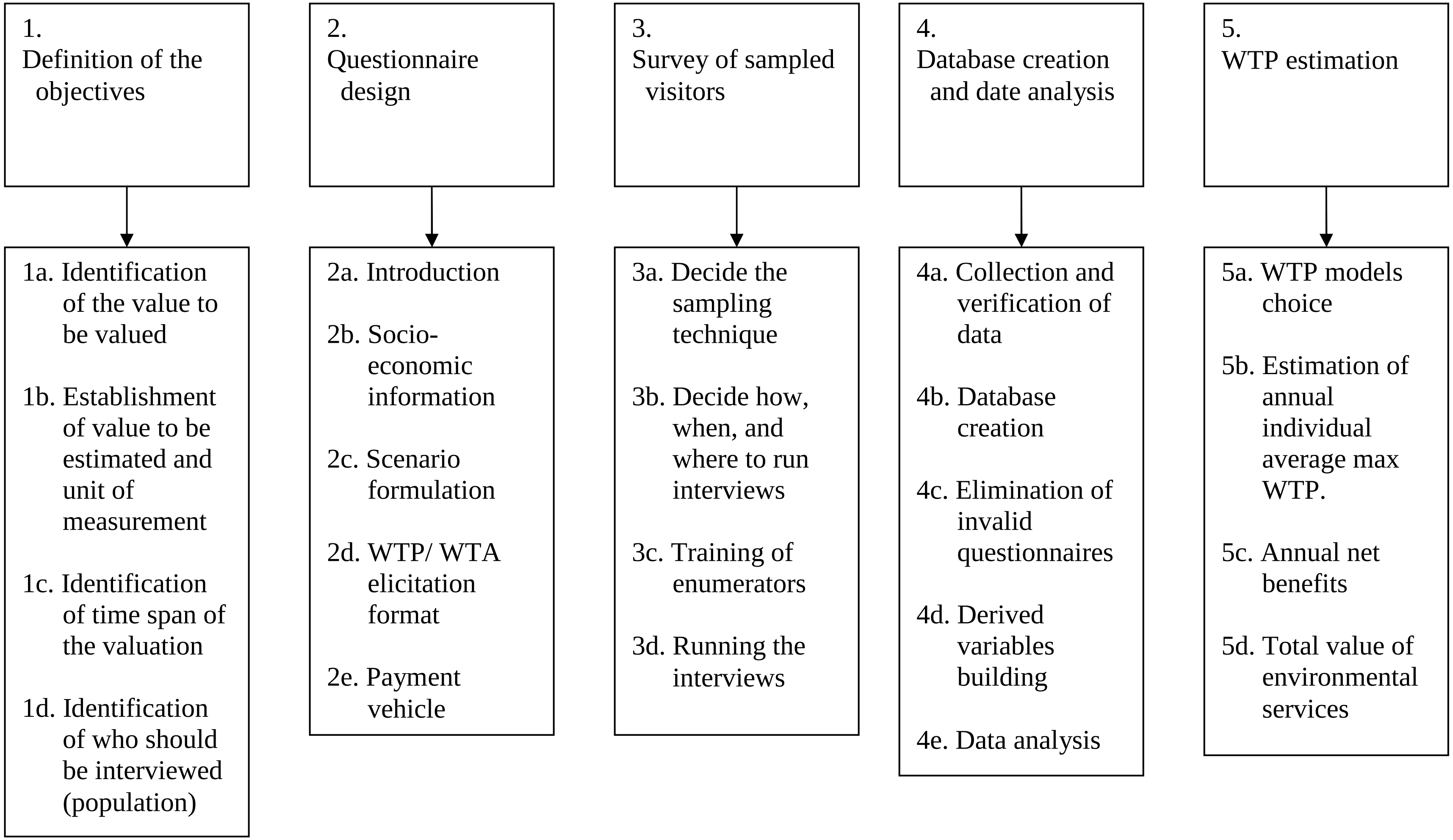


Figure 3: The process of CVM research

The second step concerning "questionnaire design" is of fundamental importance and may have crucial influence to the results. A typical CVM questionnaire contains the three components: (1) the description of the scenario, (2) the elicitation question, and (3) the survey of some related socio-economic / attitudinal variables. Among the components, the elicitation question plays the most important role for its critical influence to the validity of the research.

Table 1: A comparison of the elicitation formats

	Description	**Strength**	**Weakness**
Bidding Game	Let the interviewers iteratively raise/ lower the proposed bid until the respondent alters his yes/no answers.	✓ simple and assisted iterative process. ✓ high participation rate.	✓ anchoring ✓ yea-saying ✓ boring
Open Ended	Straightforwardly ask for the maximum WTP of the respondent by using one single question after they are presented with the hypothetical scenario.	✓ display the WTP information in the form that the research is looking for ✓ higher accuracy of the relevant statistics	✓ low participate rates ✓ vulnerable to strategic behavior (free riding)
Payment Card	Offer the respondents a card that contains a list of bid amounts and ask them to indicate which amount of money on the card they are willing to pay.	✓ no anchoring ✓ displays the WTP information in the format that the research is looking for	✓ the limited range of the cards ✓ vulnerable to strategic behavior
Single-bounded Dichotomous Choice (referendum question) (take-it-or-leave-it approach, TIOLI)	Ask the respondents if they would vote (for or against) upon a describe program of a single specified cost. It also reflects the real world market decision, and simplifies the cognition task that an individual confronted with.	✓ simple and assisted iterative process. ✓ high participation rate. ✓ no anchoring ✓ incentive compatible and facilitate the respondents' valuation task. ✓ procedure familiar in market related behavior	✓ yea-saying ✓ too expensive ✓ lower accuracy of the relevant statistics

	Description	Strength	Weakness
Double-bounded Dichotomous Choice	An extension of the former (single-bounded) format. An addition of one extra dichotomous choice question for a proposed bid which is dependent on the first bid.	✓ simple and assisted iterative process. ✓ high participation rate. ✓ no anchoring ✓ incentive compatible ✓ procedure familiar in market related behavior ✓ higher accuracy of the relevant statistics	✓ yea-saying ✓ too expensive ✓ complexity of the involved procedures

Source: *The contingent valuation of national park* (p. 25), by P. Nunes, 2002, UK: Edward Elgar Publishing.

Since every elicitation formats has its advantages and disadvantages, researches should be able to distinguish them and make the best use of them. It is reasonable to consider, according to Lockwood (1998), that detailed preference maps provide more reliable indicators of preference than responses to one-off CV questions.

In addition to the elicitation format, the payment vehicle is also important in the CVM questionnaire for the payment vehicle is never a neutral mechanism[1] (Bateman et al, 2002). Markandya et al. (2002) suggests that a pilot study should be conducted for determining the most appropriate and the most familiar payment method.

2.2.4 Criticism of CVM

Despite the spreading of CVM's wide range of applications, there remains "discomfort" among most economics about using the estimations from CV to measure consumer's WTP for charges in non-market good (Smith, 2006). The potential biases most criticized when applying CVM are as following (Markandya et al., 2002; Nunes, 2002; Mitchell & Carson, 1989; Throsby, 2003):

(1) Strategic behavior in WTP response (free-riding): Many respondents may immediately state zero WTP although the amenity has value for them. They may attempt to misreport their real preferences by bidding untruthfully and thus affecting

[1] Payment vehicles can be further distinguished to be voluntary or coercive. Coercive payments include taxes, fees, rates, charges or price, where voluntary payments include the donations and gifts that encourage free-riding and not incentive compatible.

the outcome. In other words, the amount of WTP is biased downward just because the respondents want to "get something for nothing", which is often referred to as the free-riding problem.

(2) Hypothetical bias: It is defined as the systematic differences between the response in the hypothetical market and the actual payments when individuals are presented with the opportunity in reality. Comparing the disparity of hypothetical and actual WTP, Loomis et al. (1996) conclude that the hypothetical bias is caused by the hypothetical nature of CVM, by which the respondents can't be able to visualize the described scenario. As a result, respondents tend to report "what they thought the market price should be" rather than their true WTP in combination of their budget constraints. To reduce the disparity, the wording of the reminder is sometime necessary (Loomis et al., 1996). It is also recognized that the response of WTP is the reflection of "ethical value", that is, a social-desired response which lacks the ability to reveal the true preference of the respondents (Diamond & Hausman, 1993).

(3) Scope effect: It happens when respondents do not distinguish the differences in the quantity or the scope of the public good. According to Carson & Mitchell (1993), a precautionary measure should minimize the effect by focusing the attention of the respondents on the good of interest with clear instruction in the design stage of questionnaire.

(4) Anchoring bias: Also known as "starting-point bias". This occurs when respondents see the initial bid as a clue or a reference point for his final evaluation. Respondents may also tie the described scenario to a known situation experienced in the real world so that they may make the situation as a reference.

(5) Vehicle bias: It is a misrepresentation of the WTP due to the specific payment vehicle hypothesized (e.g. income tax or specific charge). Indeed, the way that the payment vehicle is designed can affect the value judgment (Markandya et al., 2002; Wiser, 2007; Morrison et al. 2000).

2.2.5 Protest Responses in CV survey

CV surveys always encounter responses that do not follow the basic assumptions of applied welfare economics: they might hold other beliefs that protest some aspects of the valuation process rather than the good itself (Jorgensen & Syme, 2000). When a respondent states a zero bid or being refusal to pay in reaction to some unintended aspect of the measurement process, the responses are considered to be suspect or problematic (Jorgensen et al., 1999). Those responses are defined as "protest responses" and need to be treated carefully. But not all zero bidders should be included under the general heading of protest response because people are allowed to respond with values of $0 if they really find no utility in the good being valued (Boyle, 2003: 143). In general, the protest responses are always removed from the samples because they are assumed not indicative of respondents' true value (Morrison et al., 2000).

Boyle (2003) indicates that there are at least three types of potential response categories under the heading of protests, and all the three categories are based on the assumption that those responses do not reports their true values: the protests may (1) protest against some component of the valuation process, may (2) do not understand the what they are being asked to do in the survey, and may (3) behave strategically with an attempt to influence the results and ultimately the policy decision. In fact, the classification of protest responses does not in agreement and the reasons for protest vary across surveys (Jorgensen et al., 1999; Jorgensen & Syme, 2000; Meyerhoff & Liebe, 2006; Wu et al., 2005). Take the CV surveys done by Jorgensen & Syme (2000) and by Meyerhoff & Liebe (2006) for example, they identified the protest responses a little bit differently:

Table 2: Examples of protest responses across two studies

Jorgensen & Syme (2000, p.258)	Meyerhoff & Liebe (2006, p.587)
It is unfair to ask me to pay more money	I already pay enough for other things
The government should use existing revenue to pay for the pollution controls	The government should use other revenue instead of contribution to a fund
We would be able to afford better water if the government did not waste so much money	It is my right to have a high level of biodiversity in forest without extra cost
It is my right to have clear water and not something I should pay extra for	I refuse to assess biodiversity in monetary terms
I don't really believe that the money collected will be spent properly	Those who enjoy biodiversity should pay
I pay enough already in government	I don't have enough information about it

On the contrary, if the responses are based on (1) budget constraint, (2) respondents' priority of social issues, or (3) the judgments of the good in question, they are usually considered as non-protest responses and are kept in the analysis as true zero bibbers (see Meyerhoff & Liebe, 2006). Although the definition and classification of protest responses vary among studies, it is suggested that CV practitioners should make explicit the rational used to identify protest responses so that the WTP can be estimated on theoretical grounds (Jorgensen et al., 1999).

So far, CVM technique has been used in the evaluation of many non-market goods, such as environmental protection (e.g. Barbier, 1994), natural sources (e.g. Cummings et al, 1986), Culture heritage (e.g. Santagata & Signorello, 2000; Noonan, 2003), health benefits (e.g. Fu & Yeh, 2005; Diener et al., 1998) and reconstruction after disaster (Fu, Yang, & Yeh, 2006). However, only a handful of the literature discusses the value of public broadcasting by means of CVM. The section below provides an overview of how this methodology can be applied in the discussion of the appropriateness of public funding in PSB.

2.3 How CVM is Applied on the Assessment of PSB Value: Examples from Other Countries

Sweden economist Bohm (1972) is the first one to look at the eliciting willingness to pay for broadcasting service. His study is the first one to test the free-riding hypothesis and the only experimental test of overpledging hypothesis. It is also one of the handful tests that compare the WTP in stimulated markets and in hypothetical market. Papandrea (1999) uses the method of contingent valuation to estimate the value of the benefits that the Australian have from the mandatory transmission of Australian domestic programming on television. The domestic programming quota is widely recognized as a kind of culture protection, but the value of the regulatory mechanism lacks the quantitative evidence to estimate it worthiness. Papandrea's research aims to gauge whether the level of demand for domestic programming was greater than the level of supply and the likely existence of additional demand is supported in the research. A recently published research investigates the paying intent (WTP) of Hong Kang residents for online news and finds that they are not paying for the online news service neither have no strong intent to pay in the future (Chyi, 2005).

Both Bohm (1972) and Papandrea (1999) are forerunners who make use of CVM on the research of broadcasting. It is until 2001 when Finn et al. conducted the contingent valuation on CBC that he discussion of value estimations concerning *public broadcasting* received great attention. So far, the literature using CVM on the evaluation of PUBLIC BROADCASTING can be seen in four countries: Canada, Ireland, the UK, and Japan as well. In the following section, the four country's sketch of their public broadcasting, the research motive, the elicitation method, the factors affecting WTP, and the result will be provided.

2.3.1 CBC of Canada

The public broadcasting of Canada is the Canadian Broadcasting Corporation (CBC), which is also the biggest cultural institution in Canada. CBC/Radio-Canada provides 27 services available through radio, satellite radio, television, internet, wireless, and musical distribution service as well. CBC/Radio-Canada's mandate is set out in the 1991 *Broadcasting Act*. According to the Act, CBC/Radio-Canada is funded by a number of different sources and the primary source is the Parliamentary Appropriation for Operations. Although the CBC is operated at arm's length from the government, it is responsible to the Parliament and to Canadians by submitting the Annual Report to the Parliament every year.

However, the government has been struggled to determining how much to spend on public broadcasting and funding of the CBC has been the subject of public debate. Without identifying "what citizens really want", CBC can't be really accountable to the Canadians, nor can CBC claim for the appropriate public fund. Therefore, professors in the business school started to try to answer the question by using contingent valuations and choice experiment (Finn, McFadyen, & Hoskins, 2003, 2001). **Choice experiment**, as a form of conjoint analysis, is the method used to obtain the decomposition of the part-worth value from a set of evaluation of a designated set of multivariate alternatives[2]. **Contingent valuation,** on the other hand, is used in their survey to obtain the monetary value of the whole CBC service. By

[2] The choice is conducted by asking respondents to provide a yes/ no response to 16 programming offers, each consists a combination of types of program and a monthly payment. Types of rograms are thus classified into 10 categories, and researchers can evaluate the different contributions of each programming type to the whole value of CBC service.

using the open-ended question, respondents are asked to response the amount they are willing to pay for all the CBC's current services.

It should be highlighted here that the survey distinguishes the **"use-value"** from **"non-use value"**. The former refers to the benefits of CBC generated from own household consumption, and the later refers to any other external benefits such as building a Canadian cultural or national identity. The two values are proved to be existed collaboratively because respondents can identify and bid for the different values.

The results from choice experiment shows that sports programming is identified as making the greatest marginal contribution to overall value. In contrast, the French-language programming is recognized as least valuable. These are useful information for CBC when making resource-allocation decisions. The results from the CVM indicate that $ 664 million is the total value generated from CBC's current service, with $488 million coming from direct use value and $175 coming from non-use value. However, such an amount is less than the CBC's $996 million in public expenditures, but close to the CBC's 1998 parliamentary appropriation of $ 759 million. The results do not support an increased funding for CBC, however, the contribution of public funding cannot be denied (Finn et al., 2001, 2003).

2.3.2 RTÉ of Ireland

Radio Telefis Éireann (RTÉ) is the Irish public service broadcasting organization that provides three television services (RTÉ One/ Network 2/ TG4) and four radio services (Radio 1/ 2FM / Lyric FM/ Raidió na Gaeltacha). RTÉ is a Dual funded PSB with approximately 50% of its annual revenue from license fee and the remainder from advertising. With the increase of license fee in 2003, the public fund has become the primary source of RTÉ. However, the funding issue in Ireland has always been a controversy in Ireland politics and the RTÉ is called upon to justify the scale of the license fee. To provide a more robust rational, the CVM research is conducted and the survey is funded by RTÉ (Delaney & O'Toole, 2004, 2006a, 2006b. see also Jennings & Curtis, 2002).

The research issues include (1) the amount of WTP for RTÉ service, (2) the extent to which the domestic and international competing services act as complements or substitutes, (3) the effects of usage and/or satisfaction on the WTP, (4) the distinguishes between individual and household WTP and (5) preferences for making the license fee more progressive. Delaney & O'Toole (2004, 2006a.b.) conducted the nationally representative survey ant the end of 2002[3]. The questionnaire used in the nationwide survey consisted 20 questions, and ordered such that respondents' usage of and their satisfaction with general RTÉ service. They were then asked to compare RTÉ's services with the services offered by other broadcasters (the main private indigenous competitor TV3), and subsequently they were asked the WTP. The hypothetical scenario was that there was no license fee any more and the respondents must choose either pay for the services or not receiving the service at all. Be aware that the open-ended elicitation format is accompanied with the follow-up questions which are used to distinguish the exact amount of household WTP from individual WTP.

The result shows that the total mean household WTP was €21.5 and can be translated on to an annual mean of € 252.6, which is obviously higher the level of their current license fee. A number of independent variables were constructed from the responses. By using the regression models (OLS/ TOBIT/ LOGIT), some variables are shown to be influential to the willingness to pay. As expected, variable such as household size has a positive and significant effect on WTP in all regressions. The binary LOGIT regression which analyzes the determinants influencing the WTP greater or lower than the median WTP of €15 also indicates that the usage of Network 2, the overall satisfaction with RTÉ services, and the reliance on RTÉ for sports services are all indicative in determining whether one's WTP will be higher than €15 or not. As to the distinguishes between household and individual WTP, the authors found that males are more likely to answer from an individual perspective while those respondents who are married/ aged 35-64/ with children are more likely to response from a household perspective (Delaney & O'Toole, 2004, 2006a, 2006b). Finally, the result from their study (2006a) shows there is no evidence that there is a widespread demand for a policy of redistribution using license fee as a mechanism.

2.3.3 BBC of UK

The British Broadcasting Corporation (BBC), established in 1922, is the biggest

[3] The research is conducted in 2002, that is, before the announcement of the increase of license fee from €107 to €150 in 2003.

public broadcasting corporation in the world. The BBC uses the license fee to provide services including 8 national TV channels, 10 national radio stations, and 40 local radio stations. The BBC is constitutionally established by a Royal Charter that recognizes its editorial independence and sets out its public obligation in detail (BBC homepage). The Royal Charter is not a fixed charter; instead, it is revised every decade to meet the need of the license fee payers of the time. The latest Charter was granted to the BBC on 19 September 2006 and took full effect from 1 January 2007. Among the new reforms, it is the issue of license fee increase that receives most attention. In the latest Charter, the license fee designed to the next decade (2007-2016) remains intact and is determined to rise by 3% gradually over each of the two years, from its current level of £131.50 to £151 by 2012 (Shepherd, 2007/1/18).

Without the research carried out by BBC & Human Capital[4] (2004) that gives the strong endorsement of the fee increase, this resolute may not be made. According to the research, there is overwhelming support for the BBC across the UK, and people value the BBC twice the rate of the license fee. Such a conclusion is very similar to the optimistic conclusion made by Ehrenberg & Mill (1990) that the great majority of consumers would be willing to pay more for television (Ehrenberg et al. 1990; cited from Graham & Davis, 1992).

The research conceptualized the total value of BBC as the combination of consumer value and citizen, as is shown below. To test the existence of the citizen value, this research assigned the respondents to think either as "consumers" or as "citizens" and saw if there is the citizen value.

$\boxed{\text{Total Value of BBC}} = \boxed{\text{Consumer Value}} + \boxed{\text{Citizen Value}}$

The "consumer value respondents" are required to consider how much the license fee is worth to them personally while the "total value respondents" are asked to consider the fee from the perspective of social and personal benefit as a whole. This approach is quite similar to the approach taken by Finn et al. who distinguishes the "use value" and "non-use value" of CBC.

The study generates a "net citizen surplus" of £3.3bn, and a "net consumer surplus" of £2.6bn, as shown in Figure 4. Over 80% of total value respondents and

[4] Human Capital is a research institute specified in the business of media. See: http://www.humancapital.co.uk/

over 76% of consumer value respondents willing to pay the *subscription fee* same as or even higher than the current license fee to obtain the BBC services.

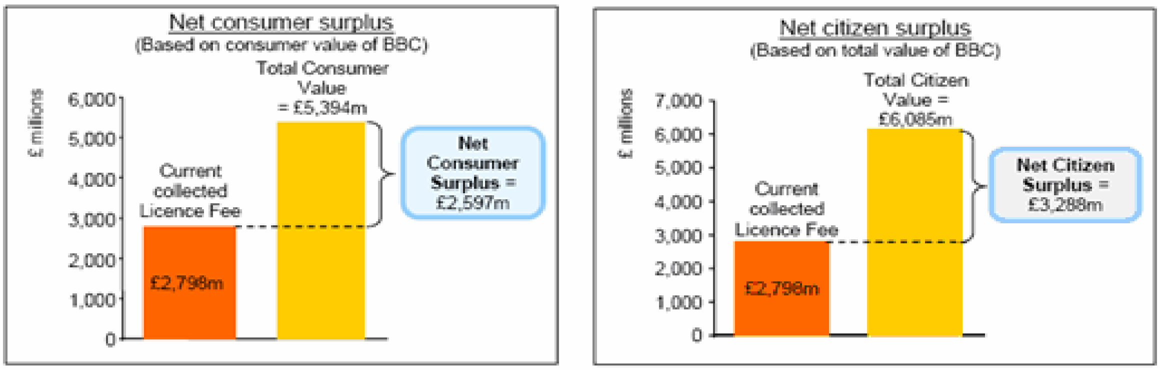


Figure 4: Net citizen surplus and net consumer surplus.

Source: "Measuring the value of BBC," by BBC & Human Capital, 2004, p20.

It is not only the total value BBC but also the constituent part of the BBC that is being evaluated in the research. By using non-normalised chip-allocation and conjoint analysis, the value of each specific service of BBC is also being calculated. By using genre ranking, the total 38 program genres are also ranked by the two types of respondents to see what kind of genre is most recognized as beneficial to the "consumers" and to the "citizens". Although these are not techniques used in a contingent valuation analysis, they also reveal some useful information for interpreting the WTP results.

2.3.4 NHK of Japan

Nippon Hoso Kyokai (NHK), established in August 1926, is the public service broadcaster in Japan. The revenue of NHK comes from the receiving fee collected from the citizens and provides the terrestrial services (NHK General/ NHK Educational/ NHK Radio 1/ NHK Radio 2/ NHK FM) and the satellite service (NHK BS-1/ NHK BS-2/ NHK BS-hi) as well.

We can't discuss the CVM research in Japan's public broadcasting without introducing the context of the survey. In Jun 2005, NHK announced a list of promises (約束) and established a committee (NHK "約束" 評価委員会，"the Committee") to assess how successfully NHK was in carrying out its promises. The Committee is composed by experts independent of NHK and is to conduct the related assessments annually. The relationship between the Committee and NHK is illustrated in the following figure.

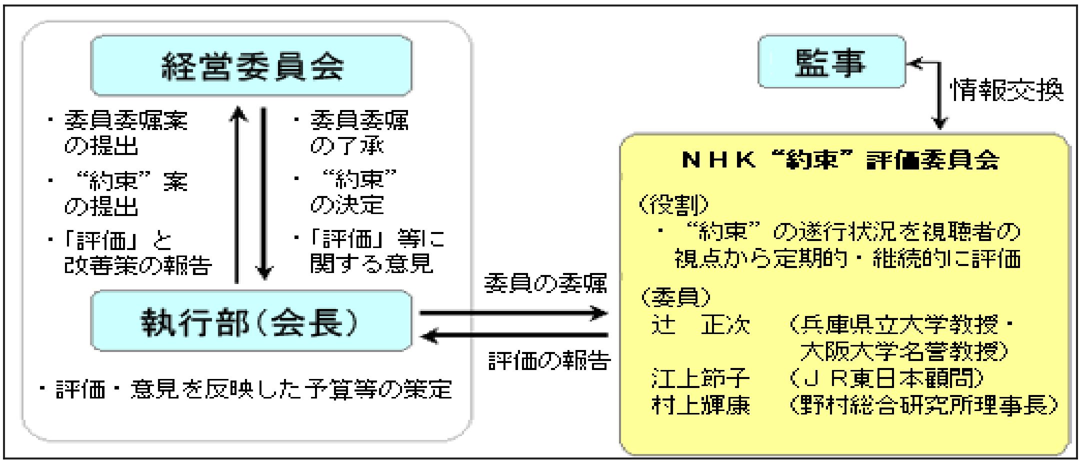


Figure 5: The Committee (“約束”評価委員会) and the executive broad of NHK
Source: http://www3.nhk.or.jp/pr/keiei/yakusoku/051202.html

The Committee emphasizes the necessity of using the scientific methods in the evaluation of NHK’s performances. Due to the quantitative nature of CVM, it is used as one of the scientific evaluation approaches in the assessment of NHK’s promises (Tsuji, 2007). In April 2006, the Committee conducted the survey in the form of personal interviews. Respondents are divided into two groups, one is for answering the WTP and the other is for WTA considering the terrestrial television service and satellite service respectively. WTP/WTA is elicited by a 3-stage dichotomous choice format starting from 1500 yen. However, WTA estimation was dropped for its low response rate.

As to the estimation of WTP, the respondents are willing to pay 1,780 yen monthly per person for terrestrial services and 1,245 yen for satellite services. Both the amounts are higher then the current receiving fees (1,395 yen and 945 yen for terrestrial and satellite service respectively). Each respondent is also asked to the relative importance for each of the respective services and those of satellite services. The amount of WTP for each is obtained by multiplying their ratios, as is shown in figure 6:

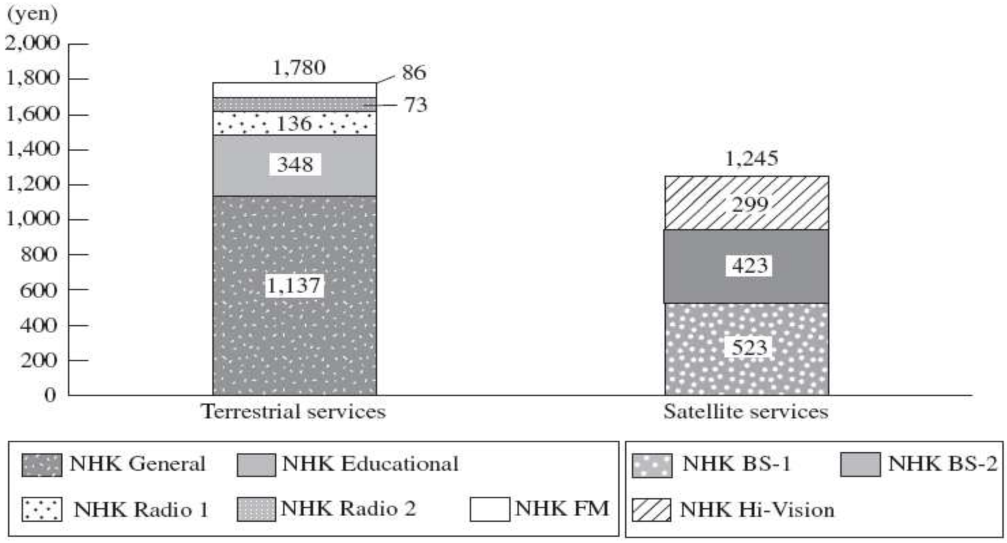


Figure 6: WTP for NHK's individual service

Source: "Assessing performance on NHK promises: methods and approaches" by M. Tsuji, 2007, *NHK Broadcasting Studies 2006-2007,* 5, 12.

The Committee also makes use of the econometric method (Logit analysis) to analyze the factors that might affect WTP. These factors including (1) respondent characteristics, (2) viewer's satisfaction with NHK's Promises, and (3) the public value of NHK. The results show that variables such as "age", "satisfaction with NHK's program", and "cities with 100-300 household population" strongly affect the WTP. Taking the Promises into consideration, "better programs", "relationship with viewers" and "benefit of local society" are extracted significant.

The public nature of NHK is broke down into 19 categories to help positioning the role of NHK as a public medium. "Producing programs that are not influenced by advertisements", "providing information that people can share and discuss", and "Passing Japanese traditions and cultures to younger generation" are all factors having significant influence on WTP (Tsuji & Miyahara, 2007). The Committee believes that these analyses can be utilized for setting up managerial strategies for public broadcasting.

To get a more holistic view, the CVM techniques used by the 4 countries are compared in Table 3.

Table 3: A comparison between the CVM studies in public service broadcasting

	Research Background	Sampling Unit	Elicitation Format	Factors in Question	Value Estimation
BBC of UK (conducted in 2003 -2004)	Conducted by BBC & Human Capital in 2004 before the revision of the Royal Charter for the next decade. The research gives the overwhelmingly support for the rise of license fee.	Individual. Respondents as (1) consumers v.s. as (2) citizens	【Gabor-Granger Method】 Dichotomous Choice (£5, £10, £15, £20, £30, £40, £50/ per month)	✓ Distinguishes the citizen value from consumer value ✓ Program genre (25 genres) ✓ BBC Approval and individual service approval. ✓ Socio-economical factors. (age / gender / SES / region / multi-channel access)	Total value: £20.7 a month (two times higher than the current license fee) Consumer value: £18.35 a month
RTÉ of Ireland (December 2002)	RTÉ is being called upon to justify the level of TV license fee. The research is conducted by Lansdowne Market Research and is funded by RTÉ.	Individual. Respondents are asked to distinguish whether their answer is from a household or an individual perspective.	Open-ended questions (subscription format)	✓ The domestic/ international competing service ✓ The usage of and/ or satisfaction with the RTE service. ✓ Household/ individual WTP ✓ Socio-economical factors.	Household WTP: €21.05 / per month (=€252.6 per year) Higher than the price €150 that is to be raised d in 2003
NHK of Japan (conducted in April, 2006)	Conducted by The Committee in April, 2006.	Individual WTP→1009 WTA→1009	Three-stage dichotomous	✓ Respondent characteristics ✓ Viewer's satisfaction with NHK's Promises ✓ The public value of NHK.	1,780 yen monthly per person, higher than the current receiving fee (1,395 yen)

	Research Background	Sampling Unit	Elicitation Format	Factors in Question	Value Estimation
CBC of Canada (1998)	The parliamentary appropriation has decreased while the competition from domestic/international commercial counterparts has increased at the same time in the 90s.	Household (the questionnaire is assigned to the one who is responsible for the household budget allocation)	2 Open-ended questions (use value and nonuse value, respectively)	✓ 【scope of use】Use value and nonuse value as well。 ✓ Types of programming (10 categories of programming) ✓ Attitudes toward CBC ✓ Frequencies of viewing ✓ Socio-economical factors.	$ 644 million with $488 million comes from use value and $175 from non-use value. Lower than the appropriation of the year ($800 million).

2.3.5 Key Explanatory Variables Affecting Citizens' WTP

As the cross-national comparison shown in Table 4, WTP is influenced largely by the factors below:

(1) **Socio-economic variables:** as a minimum requirement, every survey should collect a core set of socio-economic characteristics, such as level of education, income and age. The higher the income/age, the higher the WTP. Number of child seems influential when the educational function of PSB is considered. Some studies also suggest a regional effect, with respondents who live in metropolis would pay less in general (Delaney & O'Toole, 2004). The result from Japan also shows a negative relationship between size of city and WTP although the result doesn't reach its significant. The region variable is worth noticing while in Taiwan the imbalanced development of media industry is also predominant.

(2) **Usage of PSB:** the usage here refers to the receiving hours of the respondents. More hours spent in watching PSB programs indicates a higher use-value and is expected to increase the amount of WTP.

(3) **Public Values realized by PSB:** since PSB is commissioned to carry out some social function, the extent to which these functions being realized becomes a good determinant in predicting WTP. Tsuji & Miyahara (2007) break the public value of NHK down into 19 categories, and measure the audience's expectation of and satisfaction with NHK. The gap between expectation and satisfaction is also examined. By doing so, the public values that NHK should fulfill can be clarified and identified from the viewpoint of the audiences. This approach is also appropriate in Taiwan for it can give PTS the insight what kind of public values is heavily embraced by Taiwan citizens.

(4) **Attitudes of the Citizens toward PSB:** Many studies implement the attitudinal measurement to see whether the respondents' attitude toward PSB would influence the amount the WTP. The attitudinal measurement includes variables such as satisfaction with PSB regarding the service it provides, the achievement of the promises, satisfaction with the service provided by the commercial broadcasters, and opinions on the programming. The higher/lower satisfaction that the respondents possess toward public/ commercial broadcaster, the higher the WTP.

The satisfaction with PSB and commercial broadcasting indicate the "substitutability" of PSB. This study proposed that the "substitutability" is of particular importance for PTS. With the proliferation of cable channels in Taiwan where most audience's wants for information and entertainment can be satisfied by commercial broadcasters, the *raison d'être* of PTS is undermined. Chan-Olmsted & Kim (2002) portrayed the brand image of PSB to clarify the position of public television in a multichannel environment. Schwer & Daneshvary (1995) examined willingness to pay for PBS (the PSB in the US) among residents of Las Vegas, and concluded that people's support to PBS diminished when PBS is confronted with the cable channels of high quality ("PBS look-alike channels", such as CNN, Discovery channel, and A&E). In this study, satisfactions with commercial TV[5] and attitudes on PTS funding issues are examined to see how the attitudes affect citizens' WTP in the context of Taiwan.

[5] "Satisfactions with commercial TV" is a determinant that is often investigated in previous studies. However, unlike the pay-TV industry in the US where competitions are active and satisfactions can be approved, Taiwan's pay-TV sector lags behind that of Asian markets, and competition has been limited (CASBAA, 2008). Objectively speaking, Taiwan's pay-TV industry underperforms in a number of areas. But for the purpose of this study, it is the subjective satisfaction as a whole that matters. As a result, "satisfaction" needs to be interpreted carefully in this regard and one must be aware of the differences if cross-national comparison is to be made.

CHAPTER 3 RESEARCH DESIGN AND SURVEY

Telephone interview is utilized in this study. Before the telephone interview, a focus group was held and a pretest was conducted to determine the reasonable price and to ensure the validity of the questionnaire. The design and the procedure of the survey are illustrated in this chapter.

3.1 Focus Group

The most obvious way that focus group can assist in a survey is to provide evidence of how the respondents typically talk about the topic in question, and to ensure that the researcher has a picture of participants' thinking as completely as possible (Morgan, 1988). In the context of this CV survey, focus group was held before the telephone survey so that a more in-depth insight about people's perception/ cognition of public service broadcasting in Taiwan can be obtained, and a reasonable price level for valid bidding can thus be designed as well.

Participants were selected on a socio-economical basis: those who aged between 25-50, and those who are responsible for their household budget allocation were chosen. Participants were also selected on particular characteristics such as gender, levels of education and their number of child in order to facilitate interaction (see Table 4). Nine participants were recruited and the focus group was held on December 4 in Research Center for Survey Research, Academia Sinica.

Table 4: Characteristics of the participants in focus group

	Gender	Age	Level of Education	Marriage/ Child
Participant A	F	53	Senior vocational school	Married/ 3
Participant B	M	25	University	Married/ 1
Participant C	F	34	Senior vocational school	Married/ 1
Participant D	M	44	Senior high school	Married/ 2
Participant E	F	49	Vocational college	Married/ 1

Participant F	M	46	Junior high school	Married/ 2
Participant G	F	58	Junior college	Married/ 0
Participant H	M	25	College	Single/ 0
Participant I	F	39	Senior high school	Married/ 2

3.1.1 Execution Process and Results

The participants are designated to execute five evaluation tasks after the warm-up asking their TV viewing habits. The tasks are: (1) WTP for use value, (2) WTP for nonuse value, (3) WTP for an ideal PSB, (4) WTP after they learned the current funding level, and (5) value estimation considering the monthly charge of cable service (600 NTD) as a reference point. At the beginning of the session, respondents were given an answer sheet to respond their willingness to pay for PTS in terms of their *use value* and *nonuse value*. They are also required to complete a short questionnaire which is designed to evaluate their knowledge toward the current public service broadcasting in Taiwan. The hypothetical scenario dealing with the use value of PTS is framed as follow:

> *PTS is now funded largely by government grant so it can produce high quality programs regardless of the rating and without the intervention of political force. Imagine that now the government would no longer provide the fund to PTS, and PTS cannot but cut down the production cost, give up the production of high quality programs, and instead pursuit the maximum audience to gain the advertising revenue, just like any other commercial channels do.*
> ***Considering the benefit that PTS brings to your family,*** *what's the maximum amount of money that your household would be willing to pay every year to maintain the operation of public service broadcasting?*

While the nonuse value scenario is framed:

> *PTS has a mandate to promote the public welfare and thus provide some programs for the interest of the minorities (the deaf people and the elderly). Imagine that now the government would no longer provide the fund to PTS, and PTS cannot but cut down the production cost, sacrifice the interest of the minorities, and instead pursuit the maximum audience to gain the advertising revenue, just like any other commercial channels do.* ***Considering the benefit that PTS bring to the society as a whole,*** *what's the maximum amount of money that your household would be willing to pay every year to maintain the operation of public service broadcasting?*

Instead of declaring their WTP in the group that might lead to a false response, participants are required to write down the amount of their WTP on the answer sheet. On average, the price for nonuse value is higher that for use value.

Table 5: WTP for use value and nonuse value

Participant	A	B	C	D	E	F	G	H	I
Use value ($)	2400	300	200	100	1500	500	0	1000	500
Nonuse value ($)	3600	1000	200	1000	1500	1200	1000	1200	1000

The participants are then asked to describe freely in their own words what is the *raison d'être* of public service broadcasting in the society? What is an "ideal public service broadcasting" should be since it is entrusted with the privileges in terms of public fund? And what's your maximum amount of WTP to obtain the ideal PSB?

This discussion shows that the imagination of the "ideal PSB" is quite limited. Most of the participants mentioned that PSB should provide educational/ cultural/ aesthetic programs and unbiased/in time news. In other words, the discussion is largely restricted in the level program provision; seldom do the participants talked about the public service functions irrelevant of the content of the programs (such as universal access and devoting to digital transfer, etc.). Generally speaking, all the participants agreed that there is still room for improvement for current PTS, and they are willing to pay a little bit more (from 1000 to 3000) to maintain the ideal PSB.

The participant are given the current funding facts and asked to reevaluate their WTP. The result shows the revealed WTP reduced after they learned the current funding level. All the participants are willing to pay more than the current 150 NTD, but the average amount of WTP does decreased compared with their first bid. Participant E said that she is startled when she knows the funding fact which is “much lower than expected”.

Finally, the participants are asked to judge the value that PTS worth when it is compared with the all the available channels within 600 NTD they pay for the cable operator every month. This method of elicitation is unusual in a typical CV research, but seems to be an alternative for value judgment. The price ranges from 10 to 100 indicating that the participants hold positive value toward PTS. But the results must be interpreted with caution for this kind of value judgment does not involve any budget considerations. After this evaluation, the participants are thanked, acknowledged and dismissed.

3.1.2 A Brief Summary for the Focus Group

The discussion in the focus group provides some ideas for the further research. First of all, the nonuse value is approved among the participants because of the significant differences between the prices for use and nonuse value. Second, the participants’ limited understanding and poor imagination for the function of PSB suggest that the hypothetical scenario must be framed with great caution and the scenario should be described in a colloquial language. Third, this study decides not to mention the current funding level before the contingent valuation question because doing so may cause them to hide their real WTP. Finally, the price used in the telephone interview is determined because the amounts of WTP shown in the discussion fall within the range of 150~3000 NTD.

3.2 Survey and Sampling Procedure

The data used in the study were obtained from the national representative telephone survey based on a stratified random sampling using the computer assisted telephone interviewing system (CATI). The telephone survey was conducted by the Research Center for Survey Research, Academia Sinica. The survey period covered from December 21, 2007 through December 28, 2007. The population of this survey includes all R.O.C. citizens. Among which those who are 20 years or order in 2007 and those who are responsible for the budget allocation of their household income are selected as proper respondents and are invited to complete the telephone survey. The survey results are summarized in the following chapter. Before the survey, a pretest was also conducted on December 16 to ensure the validity of the questionnaire.

3.3 Questionnaire Design

3.3.1 Contents of the Questionnaire

There are mainly four parts of questions contained in the questionnaire after the introductory remarks:

(A) Socioeconomic variables

Respondents’ age, gender, level of education, household income, marital status, and region of residence are included. Since certain programs produced by PTS regard children and teenagers as the target audiences, the possession of kid is also inquired in the questionnaire.

(B) Usage Variables

The usage of media implies the demand for it. As a result, respondents' usage of media and usage of PTS are both investigated. The former includes the access to cable service and the average hours watching TV everyday; the later includes whether the respondent watched PTS before and the average hours watching PTS every week. Respondents' preference toward different program genre: (1) Cultural/ Educational, (2) News, (3) Variety/ Entertainment, and (4) Drama are also inquired.

(C) Expectations of and satisfaction with the functions

To capture respondents' expectations toward the public functions that they expect PSB to fulfill, six functions of PSB are listed in the questionnaire and respondents are asked to express their **expectation of** and **satisfaction with** the functions. The six functions used in the questionnaire are adapted from Tsuji (2007), which are also well-recognized by participants in the focus group, including:

(1) Provide unbiased the plural opinions on social political issue;

(2) Provide the immediate and correct information on public related issues;

(3) Provide educational programs to people of all ages;

(4) Provide programs that are entertaining;

(5) Pass down the art and culture of Taiwan to the next generation; and

(6) Provide the programs that are not influenced by advertisings and sponsors.

This study is also interested understanding respondents' satisfaction with PTS.

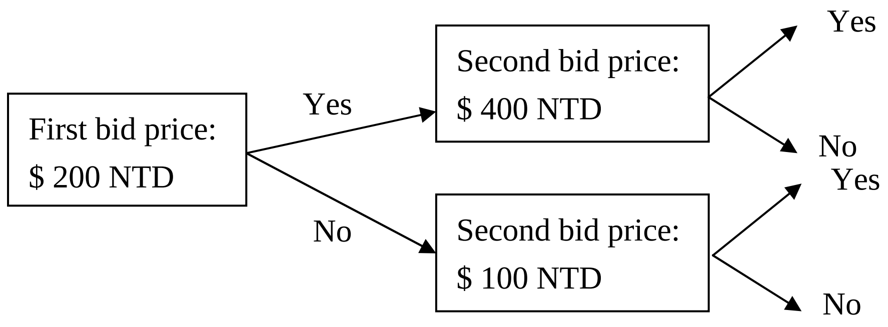
However, due to the fact that only a handful of respondents who really watch PTS, measuring the satisfaction with PTS by asking those who are not really watching it may probably obtain the disguised responses coming from the respondents' vague impression on PTS. To deal with the potential flaw, respondents' satisfaction with commercial television is measured instead. If the core function of PTS is to compensate for the insufficiencies of commercial television, measuring audience's satisfaction with commercial TV on the six functions can be a compensating but reasonable approach that allows positioning the value of PTS in an indirect way.

(D) Attitudinal Variables

Finally, respondents' overall satisfaction toward PTS as a whole is asked. Other attitude-related variables are investigated by asking whether they agree with the statements that "commercial broadcaster would fulfill any gaps left if PTS closed", "PTS should be privatized and be entirely self supporting", and "spending $150 NTD/per household on PTS annually is too much". These questions can also be suggestive to their opinions toward funding issues.

3.3.2 The Contingent Valuation Scenario and Elicitation Format

The elicitation of WTP can be achieved by open-ended and closed-ended elicitation form. In our telephone survey, close-ended form is utilized and respondents are invited to express whether they are willing or unwilling to pay for a certain amount of money regarding the hypothetical scenario. Dichotomous choice with one follow up question is adopted in this research. The second question involves the acceptance of another dollar amount depending on the first answer: if the first response is "yes", the second bid price is twice higher than the first; while, if the first answer is "no", the second bid is halved. As illustrated below:



Hanemann, Loomis & Kanninen (1991) have demonstrated that double-bounded dichotomous choice forma is superior in its statistical efficiency, but both single- and double-bounded method are statistical consistent. For the purpose of this research, only single-bound response will be analyzed in this study[6]. The double-bounded design of elicitation format is mainly used for screening the protest responses: Those who answered No-No in the survey are required to provide their reasons for not willing to pay and the reasons are coded in an open-ended format.

Note that the respondents are randomly assigned into "USE value" or "NONUSE value" group. Both groups are presented with the same hypothetical scenario but differ in the scope of benefits:

[6] Analysis for double-bound responses is also conducted using bivariate probit model but is not provided in this study. Results for double-bounded analysis are available from the author upon request.

PTS is now funded by government to produce the educational, cultural, aesthetic and news programs for people of all ages without the reliance of advertising revenues. Imagine that the government will not provide the annual funding anymore and PTS must charge the public to maintain its current service. However, this amount of money that you spend may also reduce your disposable income.

【USE Value】Considering the benefits that PTS brought ***to your family,*** *are you willing to pay 200 NTD every year to maintain the operation of PTS?*

【NONUSE Value】Considering the benefits that PTS brought ***to the whole society****, are you willing to pay 300 NTD every year to maintain the operation of PTS?*

The price used in the questionnaire is determined according to the focus group and the pretest with various initial bid prices: $ 200, 500, 800, 1200, 2000, 3000 NTD are set for use value while $ 300, 600, 900, 1500, 2500, 4000 NTD for nonuse value. These initial prices are randomly assigned to the respondents. The questionnaire is provided in Appendix 2.

CHAPTER 4 SURVEY RESULTS

In Chapter 4, the data collected from the telephone interview and the distribution of the dichotomous responses to the bid price will be examined. Another critical issue in studies of CVM is the censoring of protest responses. The selection of protest responses and characteristics that differentiates the protests are also discussed in this chapter.

4.1 Data and Sample Statistics

4.1.1 Descriptive Analysis of Respondents' Characteristics and TV usage

The data used in the study were obtained from the national representative telephone survey based on a random digit sampling. This survey reached 786 respondents successfully, with 47.3% male and 52.7% female respondents aged 46 in average. 78.9% are married because of the sampling requirement that respondents should be responsible for the household budget allocation. Among the respondents, 24.3% has pre-school kids under 6 in their family while 45.9% has kids aged 7 to 18. One third of the respondents (31.9%) have senior high level of education, and 22.0% have an undergraduate level of education. The average household income is 71.7 thousand, which might be under-estimated for the case of missing data (89 missing case) is high. The detail description of the sample is shown in Table 6.

Respondents' usage pattern of media is also shown in Table 7. The percentage of household equipped with cable TV is 85%, a number almost equals to the cable penetration rate revealed by AC Nielsen. 88% of respondents said that they watched PTS before, and among those watched PTS before, 24.1 % said that they watch 1-3 hours per week and 23.8% said less than 1 hour. The result reflects that they do not really spend much of time watching PTS when compared with their average hours of watching TV every day.

Table 8 presents respondents' preferences for different program genres when cultural/educational, news, variety/entertainment, and drama are inquired. 68.5% of the respondents said that they usually watch news programs. But for drama and cultural/educational programs, only 24.8% and 23.4% said they usually watch this kind of program. The least popular one is entertainment, with 32% said that they seldom watch it.

Table 6: Descriptive statistics of respondents' socioeconomic characteristics

	Frequency	%		Frequency	%
Age (Mean=45.78)			**Education**		
20~29	61	7.8	Illiteracy	11	1.4
30~39	194	24.7	No formal edu.	11	1.4
40~49	261	33.1	Elementary	69	8.8
50~59	177	22.5	Junior high	73	9.3
60~69	65	8.3	Senior high	251	31.9
70~79	25	3.2	Junior college	149	19.0
80~90	4	0.5	Undergraduate	173	22.0
Gender			Graduate degree	47	6.0
Male	372	47.3	Don't know	2	.2
Female	414	52.7	**Marital status**		
Family with kid under 6			Single	113	14.4
Yes	191	24.3	Married	620	78.9
No	595	75.7	Divorced	18	2.3
Family with kid between 7-18			Separated	2	.3
Yes	361	45.9	Widow	29	3.7
No	425	54.1	Refused to answer	4	.5
Region			**Household income**		
Taipei	253	32.2	Less than 20,000	63	8.1
Keelung	19	2.4	20,001~40,000	132	16.8
Taoyuan	70	8.9	40,001~60,000	178	22.6
Hsinchu/ Mioli	54	6.8	60,001~80,000	106	13.5
Taichung	81	10.3	80,001~100,000	77	9.8
Changhua/ Nantou	51	6.5	100,001~120,000	66	8.4
Yunlin/ Chiayi	37	4.7	120,001~140,000	18	2.3
Tainan	62	7.9	140,001~160,000	22	2.8
Koahsiung/ Pingtung	120	15.3	160,001~180,000	1	.1
Ilan/ Hualian/ Tautung	26	3.3	180,001~200,000	8	1.0
Penghu/ kinmen	3	.4	Over 200,001	26	3.3
Refused to answer	10	1.2	Don't know	89	11.3
					Total Obs: 786

Table 7: Descriptive statistics of respondents' media usage

	Frequency	%		Frequency	%
Watched PTS before			**Access to cable service**		
Yes	694	88.3	Yes	669	85.1
Never	92	11.7	No	117	14.9
Average hours of watching PTS[a]			**Average hours of watching TV[b]**		
0 h	152	21.9	0 h	17	2.2
Less than 0.5 hour	165	23.8	Less than 1 hour	128	16.3
0.5~1 hour	110	15.9	1~3 hour	388	49.3
1~3 hours	167	24.1	3~5 hours	162	20.6
3~5 hours	37	5.3	5~7 hours	46	5.8
More than 5 hours	48	6.9	7~9 hours	13	1.6
Don't know	15	2.1	More than 9 hours	28	3.6
sum	694	100	Don't know/	3	.4
			Refused to answer	1	.4

a. refers to the average hours of watching PTS per week last month among those who responded that they watched PTS before. Thus obs=694.

b. Refers to the average hours of watching TV everyday last month.

Table 8: Descriptive statistics of respondents' preferences toward different program genre

	Frequency	%		Frequency	%
Frequency of Watching Cultral & Educational Programs			**Frequency of Watching News Program**		
Usually watch	185	23.4	Usually watch	539	68.5
Sometimes watch	346	44.0	Sometimes watch	151	19.2
Seldom watch	175	22.3	Seldom watch	58	7.4
Never watch	74	9.4	Never watch	38	4.8
Don't know	6	.7	Don't know	0	0
Frequency of Watching Variety/ Entertainment Programs			**Frequency of Watching Drama Programs**		
Usually watch	104	13.2	Usually watch	195	24.8
Sometimes watch	298	37.9	Sometimes watch	246	31.3
Seldom watch	252	32.0	Seldom watch	189	24.1
Never watch	132	16.8	Never watch	154	19.6
Don't know	0	0	Don't know	2	.2

It is found that audiences' watching patterns of different program genre (PRG_CUL, PRG_NEWS, PRG_ENT, PRG_DRA) are predictive to their hours spent on watching PTS. Regression analysis is used to examine how they affect. Table 9 shows that the coefficient of PRG_CUL and PRG_DRA are significantly positive, indicating that respondents who usually watch cultural/educational and drama tend to spend more hours watching PTS.

Table 9: Regression on hours of watching PTS

PTSWATCH	Coef.	p-value
Constant	0.055	.819
PRG_CUL	0.559	***<.000
PRG_NEWS	-0.036	.658
PRG_ENT	-0.064	.396
PRG_DRA	0.215	***.001
Obs	786	
F (4, 781)	18.55	
Prob	***.000	
R-squared	0.086	
Adj R-squared	0.082	

*,**,*** denote significance at the 10%, 5%, and 1% level.

4.1.2 Expectations of and Satisfactions with Public Values

One of the interests of this study is to identify respondents' expectation of PSB. As shown in Table 10, respondents put strong emphasis on the educational function and cultural function (Func3 & 5). The least important function for the respondents is to provide entertaining programs (Func4). The concepts underlying these functions are similar to what Sir John Reith proposed: PSB is "to educate, to inform, and to entertain". In this study, the importance of "to educate" and "to inform" is found to be higher than that of "to entertain" in Taiwan citizen's perception.

Table 10: Frequency distribution of the expectations of the PSB functions and satisfaction with commercial broadcasters

The six public functions	Expectation of the functions provided by PSB (%)						Satisfactions with the functions fulfilled by commercial TV (%)					
	VI[a]	I	UI	VUI	Neutral	DK	SS[b]	S	DS	SDS	Neutral	DK
Provide unbiased the plural opinions on social political issues (Func 1)	43.9	31.2	9.4	3.6	1.7	10.4	2.3	18.1	36.5	31.0	3.2	8.9
Provide immediate and correct information on public related issues (Func 2)	52.9	36.6	4.7	.8	.6	4.7	5.6	47.2	24.6	12.2	2.0	8.4
Provide educational programs to people of all ages (Func 3)	62.1	31.0	2.3	.1	.5	3.9	5.5	36.6	33.6	11.5	2.3	10.6
Provide programs that are entertaining (Func 4)	18.7	40.2	30.3	5.5	1.5	3.8	5.9	55.3	20.9	8.0	1.9	7.9
Pass down the art and culture of Taiwan to the next generation (Func 5)	61.1	28.6	5.5	1.4	1.4	2.0	8.9	42.6	27.6	12.3	1.7	6.9
Provide the programs that are not influenced by advertisings and sponsors (Func 6)	48.5	33.0	9.5	1.5	1.7	5.9	4.7	50.5	24.2	8.7	4.8	7.1

a. VI=very important; I=important; UI=unimportant; VUI=very unimportant; DK= don’t know.

b. SS=strongly satisfied; S=satisfied; DS=dissatisfied; SDS= strongly dissatisfied; DK= don’t know.

Comparing the respondents' expectation of the functions with their satisfaction with these functions respectively, the gaps between the two can be found. As Figure 7 shows, most functions are far from satisfaction compared with the expectations that the respondents put on them. Func4 is the only exception, indicating that for most respondents, "providing programs that are entertaining" is the best function performed by commercial TV and is the least important thing that they expect PSB to do.

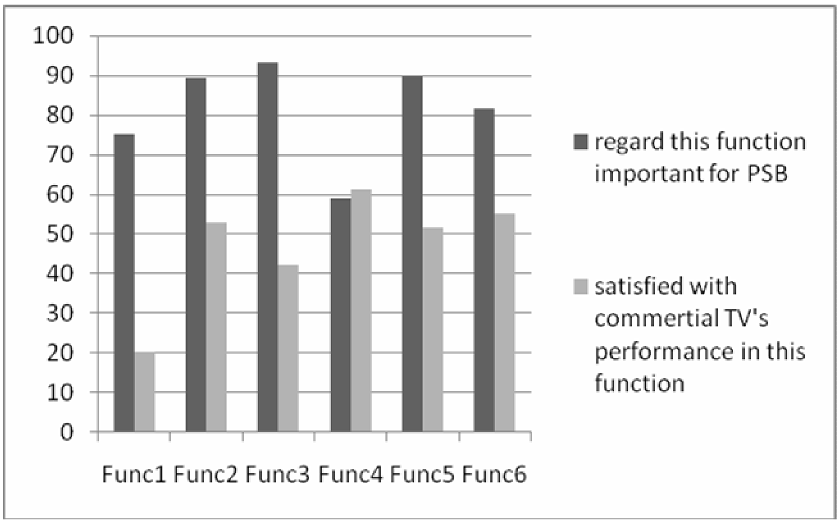


Figure 7:The differences between expectation and satisfaction of the 6 public functions

4.1.3 Descriptive Analysis of Attitudes toward PTS

This study also takes respondents' opinions toward funding issues into account, (see Table 11). Generally speaking, most respondents do not think commercial TV can fulfill the gaps caused by the closure of PTS, nor do they think that PTS should be privatized. Nevertheless, about half of the respondents report that they don't know or they have no opinion on whether such funding is appropriate or not, indicating their lack of reference point on this issue. This variable is thus eliminated from further analysis for it lacks variation.

Table 11: Frequency distribution of opinions toward funding issues (unit: %)

	SA[a]	**A**	**DA**	**SDA**	**Neutral**	**DK**
Commercial broadcaster would fulfill any gaps left if PTS closed	6.9	28.2	24.8	26.7	2.9	10.2
PTS should be privatized and be entirely self supporting	11.6	28.1	24.0	23.3	2.5	10.2
Spending $150 NTD/ per household on PTS annually is too much	5.6	1.0	39.2	4.1	24.6	25.3
	SS[b]	**S**	**DS**	**SDS**	**Neutral**	**DK**
Satisfaction with PTS as a whole	13.2	55.5	8.3	1.9	3.9	17.2

a. SA=strongly agree; A=agree; DA= disagree ;SDA=strongly disagree; DK= don't know.

b. SS=strongly satisfied; S=satisfied; DS=dissatisfied; SDS= strongly dissatisfied; DK= don't know.

4.2 Distribution of the Dichotomous Choice Responses

In the questionnaire design, respondents' WTP was measured using binary choice elicitation format with one follow up. Respondents are randomly assigned to use value scenario or nonuse value scenario. The distribution of the first dichotomous response in both scenarios is listed in table 12. Obviously, the percentage of yes response decreased with the raise of the initial bid price (see also Figure 8 and Figure 9). It is in accordance with the demand theory that changes in the price of a good may lead to a change in quantity demanded of that good.

Table 12: The distribution of dichotomous responses (Single bound)

USE VALUE			NONUSE VALUE		
Initial bid price (NTD)	Obs	Yes %	Initial bid price (NTD)	Obs	Yes %
$ 200	66	60.61%	$ 300	67	61.19%
$ 500	66	51.52%	$ 600	67	46.27%
$ 800	63	42.86%	$ 900	67	35.82%
$ 1200	66	43.94%	$ 1500	67	40.30%
$ 2000	63	33.33%	$ 2500	65	38.46%
$ 3000	65	21.54%	$ 4000	64	26.56%

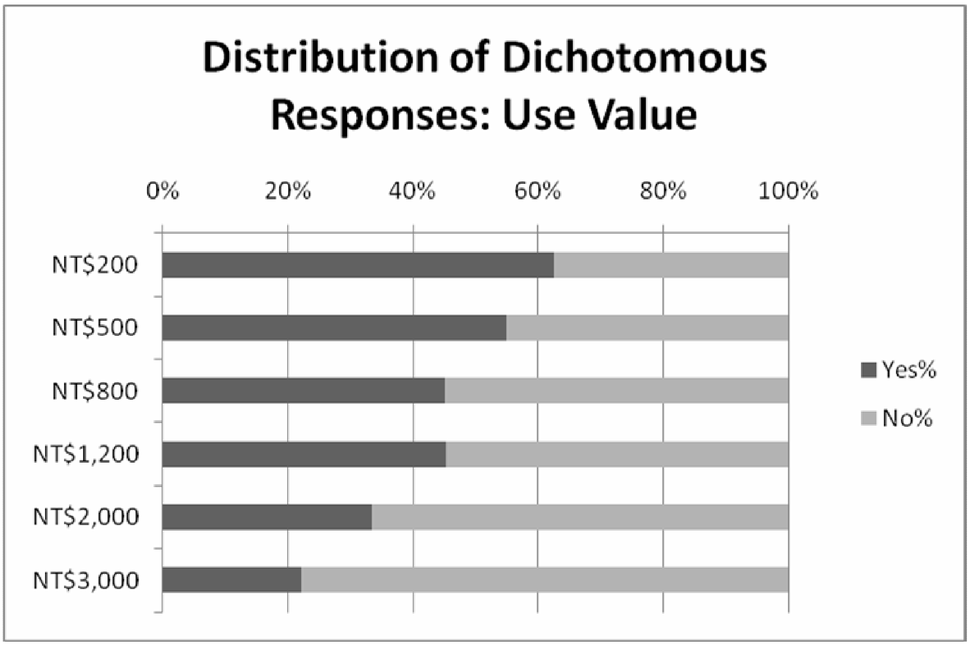


Figure 8: distribution of dichotomous responses -- use value

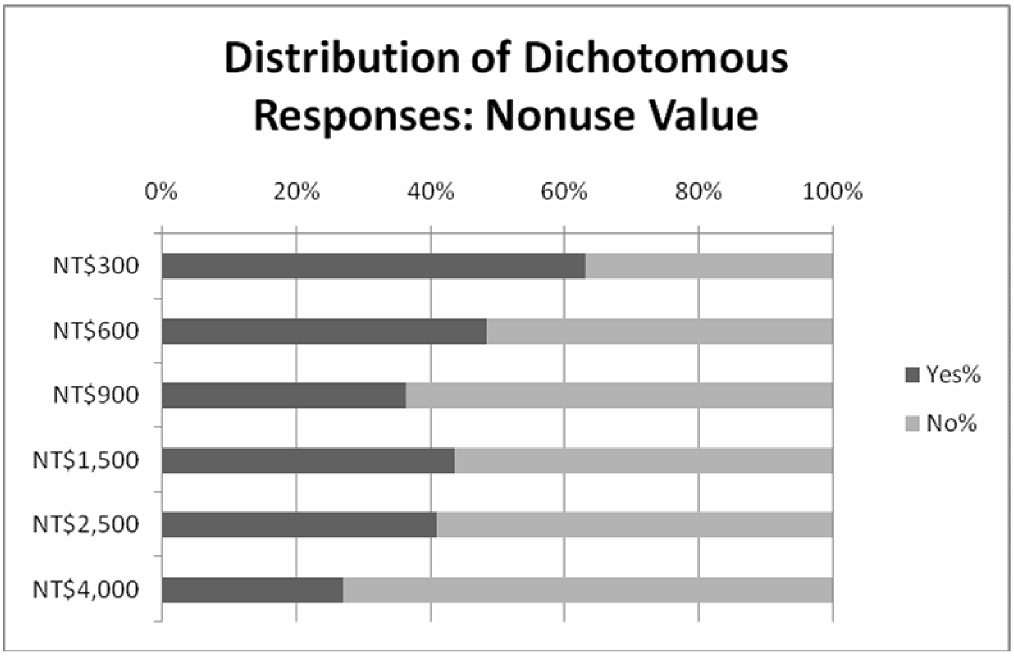


Figure 9: distribution of dichotomous responses -- nonuse value

The distribution of the double-bounded dichotomous choice is also satisfying: the percentage of No-No response increases with the initial bid price that the respondents confronted. This distribution is just what this study expected: the higher the price, the lower the respondents' acceptance. The percentages of acceptance under different initial bid prices are also shown in table13

Table 13: The distribution of dichotomous responses (Double bound)

Use Value Cases (obs=368)					
Bid amount (NTD)	Obs[a]	Y-Y[b]	Y-N	N-Y	N-N
$200, 400,100	61	22(36.1%)	17(27.9%)	5(8.2%)	17(27.9%)
$500, 1000, 250	61	21(34.4%)	13(21.3%)	7(11.5%)	20(32.8%)
$800, 1600, 400	58	11(19.0%)	15(25.9%)	5(8.6%)	27(46.6%)
$1200, 2400, 600	64	8(12.5%)	21(32.8%)	5(7.8%)	30(46.9%)
$2000, 4000, 1000	62	3(4.8%)	18(29.0%)	5(8.1%)	36(58.1%)
$3000, 6000,1500	62	2(3.2%)	12(19.4%)	6(9.7%)	42(67.7%)
Nonuse Value Cases (obs=373)					
Bid amount (NTD)	Obs	Y-Y	Y-N	N-Y	N-N
$300, 600,150	62	23(37.1%)	17(27.4%)	5(8.1%)	17(27.4%)
$600, 1200, 300	63	9(14.3%)	21(33.3%)	13(20.6%)	20(31.7%)
$900, 1800, 450	64	6(9.4%)	16(25.0%)	8(12.5%)	34(53.1%)
$1500, 3000, 750	60	7(11.5%)	19(31.1%)	9(14.8%)	25(42.6%)
$2500, 5000, 1250	61	3(4.9%)	22(36.1%)	8(13.1%)	28(45.9%)
$4000 ,8000, 2000	63	2(3.2%)	15(23.8%)	11(17.5%)	35(55.6%)

a. Observations less than that in single bound is due to the missing value.

b. Y-Y means "yes" for the initial and second bid price; Y-N means "yes" for the initial bid price but "no" for the second price; N-Y refers to "no" for the initial bid price but "yes" for the following halved price; and N-N refers to the two "no" responses in the elicitation question.

4.3 The Protest Responses

4.3.1 The Selection of Protests in this Study

In this survey, open-ended response is recorded when a respondent conveyed a no-no response. These responses are further classified into several categories (Table 14). Among these categories, those that are independent of the conceptual rational involved in this study are classified by literature as PROTEST responses. Thus, if respondents insisted that (1) it is the government that should be responsible for the provision of public service broadcasting, (2) they have paid the taxes, (3) the government waste too much money, (4) they have paid the charge of cable services, (5) the public broadcaster should be able to find the way out, or (6) reacted strongly against the way questions framed, then they are regarded as protest samples because the reason protested against the evaluation process, not against the valuation of the good in question.

Alternatively, when the response is given under the evaluation of budget constraint, competing media alternatives, the current performance of PTS, priority of social issues or because they do not spend much time watching PTS and, they are reserved in the samples for further analysis. This approach is close to the one that Jorgensen & Syme (2000) and Meyerhoff & Liebe (2006) took in their studies. The classification of reasons is also provided in Appendix 3.

Table 14: Selection of protest response in this study

Reasons for no-no response	Use value samples	Nonuse value samples	% of total protests
(1)It is the government that should be responsible for it.	**24**	**26**	**35.97**
(2)The expense should be included in the taxes so I won't pay any extra charge.	**7**	**8**	**10.79**
(3)We would be able to afford better TV programming if the government did not waste so much money.	**10**	**13**	**16.55**
(4)I have already paid for Cable TV.	**6**	**9**	**10.79**
(5)PTS should support itself by means of advertising or sponsorship.	**6**	**8**	**10.07**
(6)It is unfair to ask me to pay more money.	**14**	**8**	**15.83**
Total	**67**	**72**	**100%**
(7)It depends in the quality of the programs, but I have insufficient information to judge by.	**5**	**3**	
(8)PTS can be substituted by many other media.	**15**	**12**	
(9)The required amount of money is too high due to budget constraint.	**30**	**28**	
(10)I don't really spend much time watching PTS.	**46**	**33**	
(11)The current performance of PTS is below expectation.	**10**	**8**	
(12)I'd rather spend the money to those in need.	**0**	**3**	

Following the criteria, 17.68% (139 responses) are censored as protests in this study, 67 come from the use value sample and 72 come from the nonuse value sample. There is no agreement about what an acceptable range for the percentage of protest response should be, but it is proposed by Mitchell & Carson (1989) that protest responses often comprise 5-10 % of overall responses but can also range to 20% (Spash & Hanley, 1995). Thus, 17.68% of protest response is regarded to be high but acceptable in this study. The new distribution of the dichotomous choice after eliminating the protest responses is presented in table 15:

Table 15: The distribution of dichotomous responses after eliminating the protests

USE VALUE			NONUSE VALUE		
Initial bid price (NTD)	Obs	Yes %	Initial bid price (NTD)	Obs	Yes %
$ 200	52	75.00%	$ 300	54	74.07%
$ 500	54	62.96%	$ 600	51	58.82%
$ 800	49	53.06%	$ 900	46	47.83%
$ 1200	56	51.79%	$ 1500	49	53.06%
$ 2000	49	42.86%	$ 2500	52	48.08%
$ 3000	41	34.15%	$ 4000	49	34.69%

4.3.2 Does Protests Matter?

Protest responses have been proved to distort the outcome of evaluation in many previous researches (Jorgensen, et al., 1999). In the present study, the difference between protests and non-protests are also examined and discussed. The T test in Table 16 shows that the two groups of respondents do not differ in their socioeconomic characteristics. Gender is the only exception while males tend to be censored as protests than female when chi-square test is applied ($\chi 2=5.711$, df =1, $p=.017<.05$).

Table 16: Independent T-test by protests

		Mean	SD	T value	Sig
Age	Protests	46.13	10.82	-.348	.727
	Non-protests	45.74	12.21		n.s.
Average hour of watching PTS	Protests	1.45	2.29	-1.521	.128
	Non-protests	1.18	1.80		n.s.
Income (thousand)	Protests	74	70.17	-.468	.639
	Non-protests	71.24	55.81		n.s.
Education year	Protests	13.14	3.57	-1.593	.111
	Non-protests	12.56	3.93		n.s.

However, they do show distinct opinions on funding issues to some extent. Protests tend to agree with the statement that commercial TV can substitute PTS (χ^2=3.983, p=.046<.05). Most of the protests are still satisfied with PTS and do not think PTS can be privatized, however, the percentage of satisfied protest samples is much smaller compared with those non-protests (χ^2=3.665, p=.056<.1).

Table 17: Chi-square test for opinions by protests

		Non-Protests(%)	Protests (%)	
Commercial broadcaster would fulfill any gaps left if PTS closed (REPLACE)**	Agree	33.53	42.44	χ^2=3.983, df =1
	Disagree	66.46	57.55	p=.046
	Total	100	100	
PTS should be privatized and be entirely self supporting (COMMERLI)	Agree	40.95	33.81	χ^2=2.440, df =1
	Disagree	59.04	66.18	p=.118 n.s.
	Total	100	100	
Satisfaction with PTS as a whole (SATISFY)*	Satisfied	70.17	61.87	χ^2=3.665, df =1
	Dissatisfied	29.82	38.12	p= .056
	Total	100	100	

*,**,*** denote significance at the 10%, 5%, and 1% level.

We can also use probit regression models to see what characteristics constitute the protest response (protests=1; non protests=0). Similar results can be found in the probit regression of Table 18 that the socio-demographic variables (like age, income and level of education) are not significant determinants. The only exception is gender, where males are tend to give protest responses. Attitudinal variables seem to be influential: respondents who are less satisfied with PTS, more agree with the statement that commercial TV would fulfill any gaps left if PTS closed, and who do not think PTS should be privatized are intended to give protest responses. Since the protest responses will be removed in the following analysis, we must bear the differences in mind and interpret the results with cautious.

Table 18: Probit regression on protest responses

PROTEST (=1 if protest; =0 if non-protests)	Coef.	p-value
Constant	-1.5742	***.000
GENDER	0.2089	**.070
AGE	0.0057	.296
EDUYEAR	0.0267	.142
CABLE	0.0190	.908
INCOME	-0.0001	.858
SATISFY	-0.2282	*.061
REPLACE	0.3939	**.001
COMMERLI	-0.2283	*.066
Obs	695	
Log likelihood	-307.5258	
LR statistic (d.f.=8)	21.318	
Prob	***.0063	

*,**,*** denote significance at the 10%, 5%, and 1% level.

CHAPTER 5 THE EMPIRICAL MODEL

5.1 Model Specification

The empirical model used in this study is developed under the notion of welfare measures which is consistent with the hypothesis of utility maximization (Hanemann, 1984). Following the welfare evaluation with discrete responses proposed by Hanamann (1984), this study defines that individual derives utility from the good (e.g. having public service broadcasting) and from income. The former is represented by *j*, where *j* =1 if the individual is able to access PSB, and *j* =0 if not. Income is denoted by ***Y***, and other observable attributes of the individual which might affect one's preference are denoted by the vector ***s*** (i.e. gender, watching behaviors, and attitudes toward PSB). T is the amount of money that one is willing to pay if he wants to maintain the current public service broadcasting. The utility function can be expressed in terms of direct and indirect forms:

$$u(j,Y;\boldsymbol{s}) = v(j,Y;\boldsymbol{s}) + \varepsilon_j \quad j=0,1, \tag{1}$$

where ε_0 and ε_1 are independent and identical distributed (i.i.d.) random variables with zero means. One can maintain the PSB but lead to a loss of income, then his utility is $u_1 \equiv u\ (1, Y\text{-}T; \boldsymbol{s})$; otherwise, if one decides not to watch PSB and his utility is $u_0 \equiv u\ (0, Y; \boldsymbol{s})$.

An individual will pay for the charge to maintain the current provision of PSB if

$$u\ (1, Y - T;\ \boldsymbol{s}) \geq u\ (0, Y;\ \boldsymbol{s}) \tag{2}$$

or if:

$$v(1, Y - T; s) + \varepsilon_1 \geq v(0, Y; s) + \varepsilon_0 \qquad (3)$$

and refuse to pay otherwise. For econometric investigators, an individual's response is a random variable whose probability distribution is given as

$$P_1 \equiv \Pr\{\text{individual willing to pay}\} = \Pr\{v(1, Y - T; s) + \varepsilon_1 \geq v(0, Y; s) + \varepsilon_0\}$$

$$P_0 \equiv \Pr\{\text{individual unwilling to pay}\} = 1 - P_1 \qquad (4)$$

Define $\eta \equiv \varepsilon_1 - \varepsilon_0$ and let $F_\eta(\cdot)$ be the c.d.f. of η. The willingness to pay probability may be written as

$$P_1 = F_\eta(\Delta v) \qquad (5)$$

where

$$\Delta v \equiv v(1, Y - T; s) - v(0, Y; s). \qquad (6)$$

In a probit model, $F_\eta(\cdot)$ is the standard normal c.d.f. According to Hanemann (1984), if the statistical binary response model is to be interpreted as the outcome of a utility-maximizing choice, the argument of $F_\eta(\cdot)$ must take the form of a utility difference as in (5). In this empirical analysis, it is assumed the utility function is a liner form, then the utility difference can be written as

$$v(1, Y - T; s) = \alpha_0 + \alpha_1 s + \alpha_2(Y - T) \qquad (7)$$

and $$v(0, Y; s) = \beta_0 + \beta_1 s + \beta_2 Y \qquad (8)$$

$$\Delta v = (\alpha_0 - \beta_0) + (\alpha_1 - \beta_1)s + (\alpha_2 - \beta_2)Y - \alpha_2 T \qquad (9)$$

In effect, α_0 and β_0 cannot be identified from data, only their difference is identifiable from the probit coefficients. The quantity of money needed to maintain the current provision of PSB can be determined by welfare measurement when the individual is just at the point of indifference between paying for the charge and forego the PSB service. With this approach, the equation below is assumed:

$$\Pr\{\, u(1, Y - C; s) \geq u(0, Y; s)\} = 0.5 \qquad (10)$$

which implies that there is no more than a 50:50 chance that an individual would pay for the charge of T. $\Delta v = 0$ because of the standard normal c.d.f, where $F_{\eta}(0)$=0.5. Following this assumption, (9) can be further rewritten as:

$$T = \frac{(\alpha_0 - \beta_0) + (\alpha_1 - \beta_1)s + (\alpha_2 - \beta_2)Y}{\alpha_2} \qquad (11)$$

Suppose that the marginal utility of income is always the same regardless of one's decision, thus $\alpha_2 = \beta_2$ is assumed. Therefore,

$$T = \frac{(\alpha_0 - \beta_0) + (\alpha_1 - \beta_1)s}{\alpha_2} \qquad (12)$$

With (10) and (11), individual's maximum WTP can be calculated when the response is a dichotomous choice. In the following section, the coefficients for the probit equation of the first response will be used when computing the amount of willingness to pay.

5.2 Definition of the Explanatory Variables

Equation (11) suggests that the estimation of WTP (T) is determined by (a) the valuation function that this study proposed and (b) the observable variables. In this study, four groups of variables are assumed to be influential to WTP. The four groups of explanatory variables are:

A. Socioeconomic variables

The first variable group variables consider theirs socioeconomic characteristics such as their gender (GENDER) and age (AGE), respondents' household income (INCOME), level of education (EDUYEAR), and the possession of kids (KID6 & KID18) . These variables are expected to have positive influence on WTP for public broadcasting.

B. Usage variables

The second set of variables highlights the usage of PTS and cable. A respondent who watched PTS before (PTSSAW) and who spend more time watching PTS (PTSWATCH) is expected to have a higher willingness to pay. On the contrary, respondent's access to cable (CABLE) is expected to have a negative effect on WTP for cable TV serves as an alternative in media usage.

C. Function variables

Third, the expectations of public functions and the satisfaction with the functions performed by commercial TV are also included. Respondents' expectations are transformed into scores (0=not important at all; 4=very important). An individual index of expectations toward the 6 public functions (FUNC_P) was aggregated that ranged from 1 to 24. Respondents' satisfactions with the 6 functions performed by commercial TV were also transformed into scores (0=not satisfied at all; 4=very satisfied) and were aggregated into one single index (FUNC_C). It is hypothesized that the higher expectation that an individual holds toward PSB, the higher the WTP would be. Respondent's satisfaction with commercial TV means that respondents are likely to benefit from it and might reduce their demand for public service broadcasting; as a result, it is expected to have negative effect on WTP. The gap between expectation and satisfaction is denoted by FUNC_D which is hypothesized to have a positive influence on WTP.

D. Attitudinal variables

The last set of variables is the attitudinal variables regarding their general satisfaction with PTS, their opinions on funding and PTS's substitutability. It is hypothesized that the probability to pay is positively correlated with respondents who believe PTS should not be privatized (COMMERLI), who are satisfied with PTS (SATISFY), and who think PTS cannot be replaced by commercial broadcasting (REPLACE). Definitions of the variables, their expected signs, and sample statistics are presented in Table 19.

Table 19: Definitions and predicted coefficient signs of variables used in the model.

Variables in analysis	Definition of variables	Expected sign	Use value (N=389)		Nonuse value(N=397)	
			Mean	S.D.	Mean	S. D
Dependent Variable						
Y_1BID	Respondents' binary response to the first bid price (=1 if Yes; =0 if No)		0.43	0.49	0.43	0.49
Independent Variable						
PRICE 1	The first bid price that respondents confronted	−	1277	959	1611	1266
Socioeconomic variables						
GENDER	Gender (male=1; female =0)	+/−	0.475	0.50	0.47	0.49
AGE	Age (year-old)	+/−	47.16	11.62	46.40	12.29
EDUYEAR	The year of formal education that respondent received (year)	+	12.65	4.02	12.67	3.73
INCOME	Monthly household income in average (thousand dollar)	+	64.81	62.64	68.4	63.25
KID6	1if respondent has kid under 6 years old; otherwise=0	+	0.22	0.41	0.254	0.43
KID18	1if respondent has kid between 7-18 years old; otherwise=0	+	0.46	0.49	0.45	0.49
Usage variables						
CABLE	Access to cable service (yes=1; no=0)	−	0.82	0.37	0.87	0.33
PTSSAW	Watched PTS before (yes=1; no=0)	+	0.86	0.34	0.89	0.31
PTSWATCH	The average hour watching PTS per week last month (hours)	+	1.25	1.96	1.20	1.84
Function variables						
FUNC_P	Aggregated score for expectation of PSB	+	18.78	4.05	18.92	3.93
FUNC_C	Aggregated score for satisfaction with commercial TV	−	13.11	4.15	12.90	3.97

FUNC_D	Aggregated score for the differences between expectation and satisfaction	+	5.67	4.84	6.02	4.92
Attitudinal variables						
SATISFY	Satisfaction with PTS as a whole (very satisfied/ satisfied =1; otherwise=0)	+	0.69	0.45	0.67	0.46
COMMERLI	Consider PTS should be privatized (strongly agree/ agree =1; otherwise=0)	−	0.39	0.48	0.40	0.49
REPLACE	Think commercial TV can fulfill the gap left if PTS closed (strongly agree/ agree =1; otherwise=0)	−	0.33	0.47	0.36	0.48

5.3 Empirical Estimation: Probit Regressions

To identify the characteristics which significantly influence respondents' willingness to pay for PSB, **binary choice model** is used to assess factors influencing an individual's choice of whether to pay for it or not. The Probit specification is used in the empirical analysis to handle the problems in the linear probability model under both use value and nonuse value scenarios.

5.3.1 Use Value Scenario

Using the Probit model, this study regress the discrete choice response variable of paying for use value sample on those 4 kinds of the variables. The full model in Table 20 incorporates all variables in the use value samples and the relative significances of the variables are compared. In this full model, PRICE1, CABLE, PTSWATCH, and FUNC_D are found to be statistically significant at least 10% level and so that they are preserved in the selected model.

The selected model for use value estimation contains PRICE1, GENDER, AGE, EDUYEAR, CABLE, PTSWATCH, SATISFY, and FUNC_D. The estimated model parameter and related statistical information are also presented in Table 20. The goodness-of-fit for the model is satisfying: The LR statistic is 70.79 ($p<.000$), meaning that the overall model is significant. AIC and SC[7] are 1.21, 1.31, smaller than that in the full model and implies better model fit compared with the full model. Predictive capability is also good, with a percentage of correct predictions equal to 69.26%.

The parameter of PRICE1 is significant at 1% level with expected negative sign. However, the influences of socioeconomic variables are relatively small and none of the variables reach statistical significance. Two usage variables (PTSWATCH, CABLE) have the expected sign and are significant in the model. The negative sign in the coefficient of CABLE means that those who have cable service in the household tend not to pay for PSB. It is quite reasonable for cable service might compete with public broadcasting service and reduce the demand for public service. The same result

[7] AIC (Akaike info criterion) and SC (Schward criterion) are information criteria which provide a measure of information that strikes a balance between this measure of goodness of fit and parsimonious specification of the model. When using information criteria as a guide to model selection, one should select the model with the smallest information criterion.

can be found in Delaney & O'Toole (2004) where those with access or satellite service were significantly more likely to give a zero-bid. The coefficient for PTSWATCH is positive, indicating that more hours of watching PTS is a signal of high demand and will increase the probability of paying.

The sign of FUNC_D is as expected and the parameter is significant, implying that the larger gap that an individual found between his expectation toward PSB and his satisfaction with commercial broadcasting, the greater probability that the individual might pay for the charge. Finally, the attitudinal variable SATISFY is also significant and positive, which is consistent with expectation.

Table 20: Probit regressions on use value samples

USE VALUE	Full model		Selected model	
	Coef.	p-value	Coef.	p-value
Constant	-0.706	.399	-0.334	.567
PRICE1	$-0.410*10^{-3}$	***<.001	$-0.397*10^{-3}$	***<.001
Socioeconomic variables				
GENDER	-0.039	.812	0.029	.851
AGE	0.005	.513	0.001	.827
EDUYEAR	0.011	.661	0.032	.163
INCOME	0.001	.359		
KID6	0.263	.182		
KID18	0.170	.319		
Usage variables				
CABLE	-0.557	**.016	-0.534	**.014
PTSSAW	0.175	.561		
PTSWATCH	0.175	***.003	0.195	***<.001
Function variables				
FUNC_P	0.027	.412		
FUNC_D	0.042	*.076	0.064	***<.001
Attitudinal variables				
SATISFY	0.212	.299	0.373	**.033
COMMERLI	-0.055	.748		
REPLACE	-0.279	.127		
Obs[a]	286		309	
Log-Likelihood	-161.9725		-178.0718	
LR test (df)	70.5188 (15)		70.7931 (8)	
Probability	<.001***		<.001***	
AIC	1.24		1.21	
SC	1.44		1.31	
% correct prediction	72.38		69.26	

a. the protests are excluded from the analysis
*,**,*** denote significance at the 10%, 5%, and 1% level.

5.3.2 Nonuse Value Scenario

The variables to be estimated in the full model for nonuse value are the same with those in the use value cases, but the results of the estimations in the two subsamples are quite different. As shown in Table 21, only PRICE1, GENDER and SATISFY are significant statistically. After eliminating some insignificant variables, the selected model is determined. The LR statistic is 35.94 ($p<.000$), meaning that the overall model is also significant. AIC (1.32) and SC (1.43) suggest a better model fit for the selected model. Predictive capability is 65.05%, an acceptable percentage of prediction in a probit model.

Table 21: Probit regressions on nonuse value samples

NONUSE VALUE	Full model		Selected model	
	Coef.	p-value	Coef.	p-value
Constant	0.209	.787	0.178	.759
PRICE1	$-0.234*10^{-3}$	***<.001	$-0.230*10^{-3}$	***<.001
Socioeconomic variables				
GENDER	0.342	**.035	0.394	***.008
AGE	-0.007	.363	-0.005	.428
EDUYEAR	-0.029	.273	-0.009	.671
INCOME	0.001	.185		
KID6	0.187	.315		
KID18	-0.024	.879		
Usage variables				
CABLE	0.220	.367	0.275	.218
PTSSAW	-0.202	.519		
PTSWATCH	0.052	.284	0.065	.138
Function variables				
FUNC_P	0.020	.532		
FUNC_D	0.014	.526		
Attitudinal variables				
SATISFY	0.337	*.080	0.385	**.022
COMMERLI	-0.194	.263		
REPLACE	-0.168	.363	-0.340	**.031
Obs[a]	273		309	
Log-Likelihood	-172.2099		-195.494	
LR statistic (df)	31.7458 (15)		35.9478 (8)	
Probability	.006***		<.001***	
AIC	1.37		1.32	
SC	1.59		1.43	
% correct prediction	67.03		65.05	

a. the protests are excluded from the analysis

*,**,*** denote significance at the 10%, 5%, and 1% level.

The parameter of PRICE1 is also substantial, indicative of the robustness of the influence of price. GENDER becomes influential with a positive sign in this model, suggesting that males are likely to pay for the charge.

It is interesting to find that none of the usage variables is significant in this model. This result shows that when the value of PTS is considered in terms of “the benefit that PTS can brought to the society”, individual’s own use of media plays no more dominant role in the decision to pay. Usage is not a complete indicator of derived utility in this regard. The explanatory power of function variables is also weakened in the model. However, the attitudinal variables (SATISFY, REPLACE) become significant: the positive sigh of SATISFY means that respondents who are more satisfied with the current performance of PTS is more willing to pay; while the negative sign of REPLACE suggests that those who do *not* think PTS can be substituted or replaced are more willing to pay.

5.4 Estimating WTP for Use Value and Nonuse Value

An individual’s WTP for the current maintenance the public service broadcasting (T) can be further computed using equation (10) and (11). Owing to that income is not included in the selected model, WTP is computed with equation (11). The computing task is performed using STATA SE 8.2. The parameters in the selected probit regressions are chosen to compute WTP for use value and nonuse value respectively because the two models fit better.

It is noteworthy that the parameters in the two models are estimated with observations that are not protests, however, when compute the mean WTP, all 784 observations in this study are included. Although revealed a negative response in the telephone interview, protests do not necessarily hold value of $0 toward the good of interest. As a result, the WTP of the protest samples are also considered in the following analysis. Figure 10 and 11 show the distribution of individual’s estimated WTP for public service broadcasting in terms of use value and nonuse value. The mean WTP for use value is $296.637NTD every year, while the mean WTP for nonuse value is $1195.65 NTD every year. Summarized table for the WTPs is provided below.

Table 22: descriptive analysis of the calculated WTP

	obs	Mean (NTD)	S.D.	Min	Max
WTP for use value	784	2423.3	1701.5	-2577.7	8892.1
WTP for nonuse value	784	1182.8	1616.5	-3433.2	5344.0

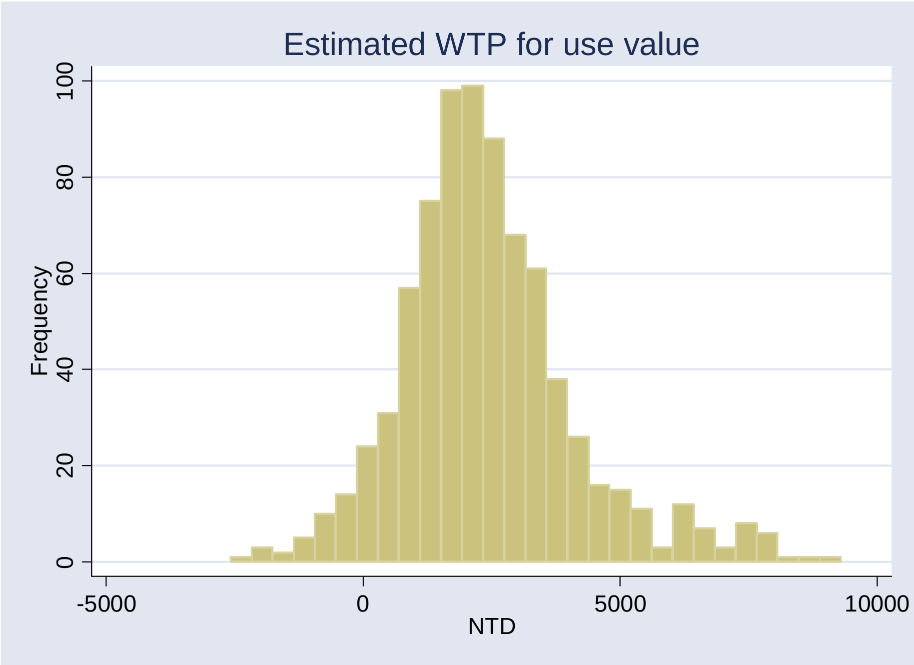


Figure 10: Estimated WTP for use value

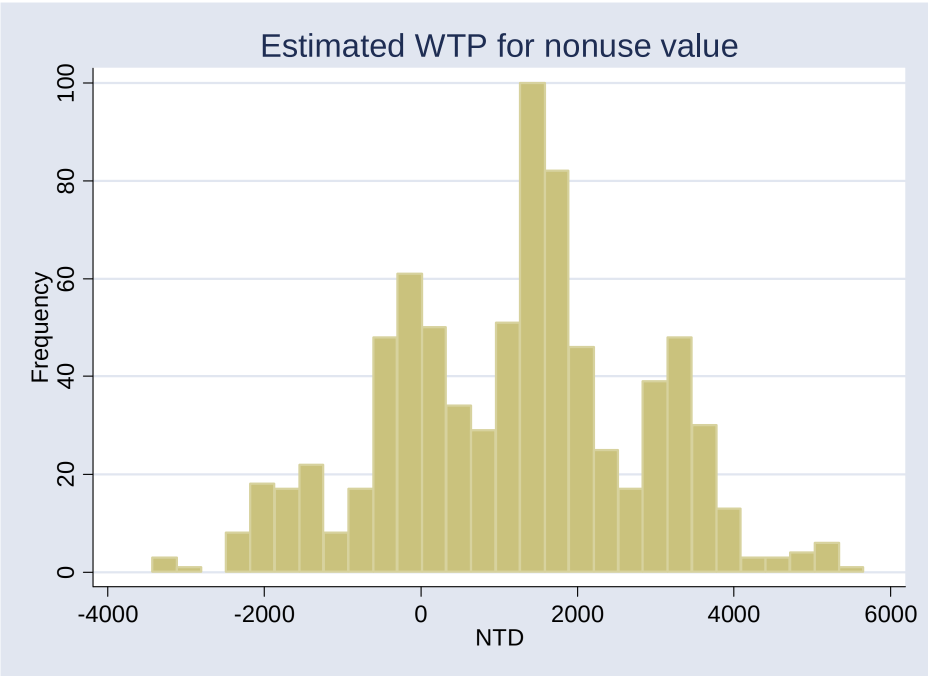


Figure 11: Estimated WTP for nonuse value

With this estimation, the mean WTP for the PSB in Taiwan and that in other countries can be compared simultaneously. GDP is used as an index to compare the WTP for PSB under the same benchmark. The average WTP for BBC is estimated to be 522.22 USD per year, which is about 1.14% of the GDP per capita in UK. It is a relative high percentage among the five countries compared with the 0.53% in Japan, 0.91% in Ireland, 0.19% in Canada, and 0.44% in Taiwan. The result is not surprising for BBC really plays a dominant role in the media market of UK. The estimated WTP in Taiwan is 0.44% and 0.21% of the GDP per capita for use value and nonuse value in 2007. Although seems comparatively optimistic, however, owing to that the contingent valuation are conducted by using different methods of estimation, the result must be treated with great caution.

Table 23: Compare the estimated WTP with the GDP: an international comparison

	Year	**Estimated annual WTP for PSB**	**GDP per capita (USD)[a]**	**WTP for PSB /GDP (%)**
BBC of UK	2004	total value: £23.50 per month =282 £ per year =$ 522.22 USD	36,256.87	1.14%
NHK of Japan	2006	WTP for terrestrial ￥1780 per month =￥21360 per year = $ 183.58 USD	34,263.65	0.53%
RTE of Ireland	2002	€21.05 per month = €252.6 per year =$ 287.04 USD	31,394.15	0.91%
CBC of Canada	1998	$ 5.03 CAD per month =$ 60.36 CAD per year =$ 40.78 USD	20,495.23	0.19%
PTS of Taiwan	2007	Use value =$2423 NTD per year =$ 73.75 USD Nonuse value =$1182 NTD per year =$ 35.98 USD	16,606.00	0.44% 0.21%

a. Source: International Monetary Fund, World Economic Outlook Database, April 2008

5.5 Profile Analysis: Least Significant Difference (LSD) Test

The least significant test (LSD), also called Fisher's LSD test, compares all the possible pairs of means after the F-test rejects the null hypothesis that the groups do not differ. In this study, LSD is used to compare the estimated amount of willingness to pay among different groups. The purpose of doing so is to divide the respondents into distinct groups of viewers with different characteristics and WTP, and is helpful for PTS in market segmentation and market positioning. The same alphabet in each group of respondents denotes that the mean WTP for the two groups do not differ significantly. For example, male and female respondents' WTP for use value is $2323 NTD and $2534 NTD respectively and the mean WTP do not differ statistically; thus, the same alphabet is given to the two groups of respondents. However, when the WTP for nonuse value is examined, male respondents tend to pay more than the female respondents and the difference is significant at .05 level. Thus different alphabets are provided to show the difference between groups.

Table 24 shows that when the use value of PTS is considered, respondents of different ages do not differ in their estimated WTP. But the difference can be found among respondents of different level of education, income, and average hours of watching: those who are highly educated or those who do not have access to cable service would like to pay more. The significant differences among people of different hours of watching suggest the strong predictive power of PTSWATCH . However, when nonuse value is considered, the amount of WTP is about the same regardless of the level of education. But for elder respondents over 60 years old, their WTP decreased significantly. Again, the amounts of WTP for respondents of different attitudes are also proved to be varied among groups. The conditional estimates of WTP using different respondent characteristics show even more clearly that we can identify distinct groups with various amounts of WTP.

Table 24: Least significant difference (LSD) test

		Use Value		Nonse Value	
Variables	obs	Mean (SD) $	LSD test	Mean (SD) $	LSD test
GENDER					
Male	371	2323.6 (1713.6)	A	2134.3 (1351.9)	A
female	413	2534.4 (1686.3)	A	328.0 (1333.2)	B
AGE					
20~29	61	2065.8 (1203.0)	A	1365.4 (1489.2)	A
30~39	192	2491.1 (1738.2)	A	1408.4 (1508.9)	A
40~49	260	2574.3 (1771.0)	A	1195.6 (1616.4)	A
50~59	177	2329.3 (1554.0)	A	1098.6 (1699.3)	A
60~69	65	2272.0 (1916.7)	A	714.3 (1733.3)	B
70~	29	2286.4 (2002.0)	A	753.4 (1560.8)	B
EDUYEAR					
0~9 years	164	1750.0 (1767.3)	A	1167.6 (1664.3)	A
12~15 years	400	2372.8 (1513.2)	B	1100.5 (1597.2)	A
16~18 years	220	3017.1 (1776.5)	C	1343.6 (1610.8)	A
INCOME					
0~20000	62	1729.5 (1644.8)	A	689.8 (1559.6)	A
20000~80000	415	2441.4 (1725.2)	B	1250.8 (1620.8)	B
80000~140000	161	2724.2 (1616.0)	B	1473.0 (1473.2)	B
0ver 140000	57	2717.5 (1792.7)	B	1030.0 (1726.6)	A
CABLE					
Yes	667	2154.9 (1475.9)	A	1308.3 (1572.4)	A
No	117	3953.6 (2063.8)	B	467.1 (1683.8)	B
PTSWATCH					
0~0.5h	422	1618.5 (1189.6)	A	593.5 (1504.2)	A
0.5~3 h	277	2703.9 (1128.3)	B	1576.4 (1346.2)	B
3~5 h	37	4188.0 (954.8)	C	2255.7 (1262.4)	C
5h~	48	6520.3 (1227.7)	D	3264.6 (1428.0)	D
KID6					
Yes	190	2249.0 (1633.7)	A	1283.3 (1584.7)	A
No	594	2479.1 (1720.2)	A	1150.6 (1626.5)	A
KID18					
Yes	361	2548.5 (1754.1)	A	1270.9 (1583.6)	A
No	423	2316.5 (1649.8)	B	1107.5 (1642.2)	A
SATISFY					
Satisfied	540	2913.3 (1643.1)	A	1810.6 (1332.0)	A
Dissatisfied	244	1338.9 (1275.1)	B	-206.6 (1292.3)	B
COMMERLI					
Agree	311	2197.1 (1499.9)	A	968.0 (1493.4)	A
Disagree	473	2572.1 (1808.1)	B	1323.9 (1679.2)	B
REPLACE					
Agree	275	1959.1 (1516.2)	A	140.0 (1374.9)	A
Disagree	509	2674.1 (1744.3)	B	1746.1 (1449.7)	B

CHAPTER 6 CONCLUSION AND LIMITATIONS

6.1 Conclusion

This study is the first research in Taiwan that put public service broadcasting (PTS) into the hypothetical scenario and attempt to estimate Taiwan citizens' willingness to pay for public service broadcasting. It is also helpful in investigating what public values that people expect most and insightful in understanding what factors influence people's demand and WTP for such a public good.

Following Finn, McFadyen, & Hoskins (2003), the value of PSB is divided as "use value" and "nonuse value". This research is conducted by telephone survey in December 2007 with 786 usable responses. Among the 786 participants, 389 participants are for the elicitation of use value while 397 for nonuse value. Protest responses are also considered in this research: they do not differ in the socioeconomic variables, but they do show distinct opinions on funding issues to some extent. Due to the dichotomous nature of the elicitation format, probit models are applied as the analytical tool, and the compensation variation WTP is generated following Hanemann's (1984) welfare measurement. Generally speaking, the findings from this survey are suggestive to the purpose of research which is proposed at the very beginning of this study:

First of all, this research explores the public functions that they expect PTS to fulfill and their satisfactions with commercial broadcastings in this regard. This is helpful in clarifying PTS's position as a public service broadcaster, and can also serve as guide directions for PTS. Respondents put strong emphasis on the educational function and cultural function (Func3 & 5) while the least important function for the respondents is to provide entertaining programs (Func4). The scores for function expectations and satisfactions are transformed for further analysis: FUNC_D represents for the gap between expectations and satisfactions, and is found to have positive influence on WTP in the probit estimation.

Secondly, the influence of respondents' socio-economic characters and attitudes toward PTS are examined. The data show that WTP for use value and nonuse value were derived from different sets of determinants. For use value, variables related to the usage of media, respondents' satisfaction, and the gap between satisfaction and expectations are influential, while the influence of demographic variables is relatively small. For nonuse value, gender becomes influential in this regard, implying that male respondents are more willing to pay for nonuse value. The influences of usage variables are mitigated and attitudinal variables become predictive: those with higher satisfaction and do not think PTS can be replaced by commercial broadcasting are more willing to pay.

The last, also the main objective of this study has been to evaluate PSB, especially in monetary term. With the estimated coefficients obtained from the probit model, individual's maximum WTP for both use and nonuse value are calculated. The estimated household WTP for use and nonuse value every year is **$2423 NTD** and **$1182 NTD** in average, about 0.44% and 0.21% of the GDP per capita in year 2007. The result is similar to that in Canada where for Canadians, use value ($488 million CAD) is 2~3 times higher than nonuse value ($175 million CAD). The estimated WTPs exceed the current annual $ 900 million NTD grants from the government, which equals to $ 150 NTD per household every year. The result also implies that the current appropriation to PTS is incommensurate with the value that PTS brought to the society.

Some implications can be made from the results: For government, the estimated WTP can be seen as a reference point when discuss the funding policies. For PTS, it can be seen as the output which is measurable when conducting cost-benefit analysis. While hours of watching PTS is an important variable for value estimation in this study, rating and share seem to be indicators that can not be neglected in the evaluation of PTS.

6.2 Limitations and Suggestions for Future Research

Measuring PSB is fraught with challenges due to the complexity of handling citizen-based purposes, and meeting the diverse stakeholder's expectation. Although it has been demonstrated that CVM offers a mechanism for valuing PSB in this study, there are still certain limitations that might be crucial to the inference of the findings. Probably the most important limitation of this study is that the measurement is conceptual that makes the application of CVM difficult. Such difficulty is also reflected on the large size of protest samples although efforts have been made to reduce respondent’s concern during the telephone interview. Those who protested against the evaluation process are critical to the results, even the removal of them might lead to the overestimation of WTP. In other words, there are dangers of high incidence of strategic and non rational bidding in the methodology.

Interestingly, the estimated WTPs for use and nonuse value are somewhat in contradiction with the results derived from focus group. In the focus group, participants revealed a higher willingness to pay for the nonuse value; however, the amount of WTP estimated from the survey data shows that use value outweighs nonuse value. Probably it is because that use and nonuse values are presented simultaneously to the participants and that higher WTP for nonuse value might be driven by group pressures. Another possible explanation for the contradiction is that the model fits better in use value samples than in nonuse value samples, indicating that this research still fails to capture the underlying factors that influence the WTP for nonuse value.

Finally, although the main interest of this study is to measure the value of PSB in Taiwan, but only PSB provided by PTS is presented in the questionnaire. PSB in Taiwan refers to not only PTS, but also CTS, Hakka TV, Indigenous TV and Taiwan Macroview TV. However, owing to the fact that TBS in Taiwan is still in its infancy, only PTS was selected as the target of estimation. Future efforts can be made in this regard to help the establishment of a more comprehensive evaluation of public service broadcasting.

REFERENCE

Act of PTS (Revised in 2004). 公共電視法（2004 年修正）。

Arrow, K., Solow, R. Portney, P. R. Leamer, E. E. Rander, R. & Schuman, H. (1993). *Report of the NOAA panel on contingent valuation*.

Barbier, E. B. (1994). Valuing environmental functions: tropical wetlands. *Land Economics*, *70*(2), 155-173.

Bardoel, J. & D'Haenens, L. (2004). Media responsibility and accountability: New conceptualizations and practices. *The European Journal of Communication Research, 29*(1), 5-25.

Bateman, I. et al. (Eds.) (2002). *Economic Valuation with Stated Preference Techniques: A Manual.* UK: Edward Elgar Publishing Ltd.

BBC & Human Capital (2004). *Measuring the value of the BBC—a report by the BBC and the Human Capital*.

Bohm, P. (1972). Estimating demand for public goods: an experiment. *European Economic Review, 3*, 111-130.

Boyle, K. J. (2003). Contingent valuation in practice. In P. A. Champ, K. J. Boyle & T. C. Brown (Eds.), *A Primer on Nonmarket Valuation* (pp.111-169). Netherlands: Kluwer Academic Publishers.

Brants, K. (2003). Auditing public broadcasting performance: its theory and practice. *The Public*, *10*(3), 5-10.

Brown, A. (1996a). Economics, public service broadcasting, and social values. *The Journal of Media Economics, 9*(1), 3-15

Brown, A. (1996b). A note on public service broadcasting. *The Journal of Media Economics, 9*(1), 1-2.

Carson, R. T. & Mitchell, R. C. (1993). The issue of scope in contingent valuation studies. *American Journal of Agricultural Economics*, *75*(5), 1263-1267.

CASBAA (2008). *Taiwan's Digital Gap: Regulation and Development of the Pay-TV Industry.* Hong Kong: The Cable & Satellite Broadcasting Association of Asia.

Chan-Olmsted, S. M. & Kim, Y. (2002). The PBS brand versus cable brands: assessing the brand image of public television in a multichannel environment. *Journal of Broadcasting and Electronic Media, 46*(2), 300-320.

Cheng, C. M. (2005). The group of public service broadcasting, a tenable solution? Argument for its descriptive or analytic validity. *Communication and Management Research, 5*(1), 2-27. 程宗明（2005）。〈公共廣播電視集團是否為「集團」？--一個描述性或分析性概念之爭議〉，《傳播與管理研究》，5: 2-27。

Chyi, H. I. (2005). Willingness to pay for online news: an empirical study on the viability of the subscription model. *Journal of Media Economics, 18*(2), 131-142.

Collins, R., Finn, A., McFadyen, S. & Hoskins, C. (2001). Public service broadcasting beyond 2000: is there a future for public service broadcasting? *Canadian Journal of Communication, 26* (1), 3-15.

Coppens, T. (2002). A tour of duties: A comparative study of PSB mission statements in 13 European countries. Paper presented at the 23rd Conference and General Assembly of the IAMCR, Barcelona, July 2002.

Croteau, D. & Hoynes, W. (2001). *The Business of Media: Corporate Media and the Public Interest.* CA: Pine Forge Press.

Cummings, R. G., Brookshire, D. S. & Schulze, W. D. (Eds.) (1986). *Valuing Environmental Goods: A State of the Art Assessment of the Contingent Method.* Totawa, NJ: Rowman and Allanheld.

Delaney, L. & O'Toole, F. (2004). Irish public services broadcasting: A contingent valuation analysis. *The Economic and Social Review, 35*(3), 321-350.

Delaney, L. & O'Toole, F. (2006a). The distributional effects of state-financed broadcasting. *Journal of Media Economics, 19*(2), 83-98.

Delaney, L. & O'Toole, F. (2006b). Willingness to pay: individual or household? *Journal of Cultural Economics, 35*(3), 305-309.

Diamond, P. A. & Hausman, J. (1993). On contingent valuation measurement of non-use values, in J. Hausman (Ed), *Contingent Valuation: A Critical Assessment.* Amsterdam: North-Holland.

Diener, A., O'Brien, B. & Gafni, A. (1998). Health care contingent valuation studies: a review and classification of the literature. *Health Economics, 7*(Jun), 313-326.

EBU (2000). *The Funding of Public Service Broadcasting*. Switzerland: European Broadcasting Union, Legal Department.

Finn, A. McFadyen, S. & Hoskins, C. (2003). Valuing the Canadian Broadcasting Corporation. *Journal of Cultural Economics*, *27*(3-4), 177-192.

Finn, A., McFadyen, S., Hoskins, C. & Hupfer, M. (2001). Quantifying the sources of value of a public service. *Journal of Public Policy & Marketing, 20*(2), 225-239.

Fu, T. T. & Yeh, P. (2005). An application of CVM on the evaluation of the health benefit—The WTP of Hypertension Prevention. *Taiwan Economic Review*, *33*(1), p.1-32. 傅祖壇、葉寶文(2006)。〈應用 CVM 在健康效益之評估—高血壓疾病預防之願付價格〉，《經濟論文叢刊》，33(1): 1-32。

Fu, T. T., Yang, W. S. & Yeh, P. (2006). Citizen's willingness to donate for reconstructing disaster areas caused by the 921 earthquake-- An application of CVM. *Taipei Economic Inquiry*, *42*(1), p.57-74. 傅祖壇、楊文山、葉寶文(2006)。〈921 大地震災後重建經費之民眾捐款意願—CVM 法之應用〉,《經濟研究》,42(1): 57-74。

Government Information Office (2005). *Amendment Draft for the Act of PTS.* 行政院新聞局 (2005)。《公共電視法修正草案總說明》。12 月 12 日送行政院政務委員審查會議文件。

Graham, A. & Davis, G. (1992). The public funding of broadcasting. In Congdon, T. et al. (Eds). *Paying for Broadcasting: The Handbook* (pp. 167-221). London: Routledge.

Hanemann, M., Loomis, J. & Kanninen, B. (1991) Statistical efficiency of double-bounded dichotomous choice contingent valuation. *American Journal of Agricultural Economics*, 73(4), 1255-1263.

Hanemann, W. M. (1984). Welfare Evaluations in Contingent Valuation Experiments with Discrete Responses. *American Journal of Agricultural Economics*, 66(3), 332-341.

Hanemann, W. M. (1991). Willingness to pay and willingness to accept: how much can they differ? *American Economic Review, 81*(June), 635-647.

Harrison, J. & Woods, L. M. (2001). Defining European public service broadcasting. *European Journal of Communication, 16*(4), 477-504.

Hastings, T. (2004). Discussion of performance measures in public service broadcasting. *Aslib Proceedings, 56*(5), 301-307.

Hilliard, R. L., & Picard, R. G. (1989). Plurality, diversity, and prohibitions on television-newspaper crossownership. *Journal of Media Economics, 2*(1), 55-65.

Hisao Onoe, Yasuo Sakamoto & Hirosuke Arai. (1993). A cost-benefit analysis of television broadcasting. *Studies of Broadcasting, 29*(March), 93-124.

Holtz-Bacha, C. & Norris, P. (2001) "To Entertain, Inform, and Educate": Still the Role of Public Television. *Political Communication*, 18: 123-140.

Jakubowicz, K. (2003). Endgame? Contracts, audits, and the future of public service broadcasting. *The Public, 10*(3), 45-62.

Jennings, M. I. & Curtis, J. A. (2002). Assessing the public service element of Irish public broadcasting—the validity of the contingent valuation method. Paper presented for CVM conference, University of Chicago.

Jorgensen, B. S. & Syme, G. J. (2000). Protest responses and willingness to pay: attitude toward paying for stormwater pollution abatement. *Ecological Economics, 33*(2), 251-265.

Jorgensen, B. S., Syme, G. J., Bishop, B. J. & Nancarrow, B. E. (1999). Protest responses in contingent valuation. *Environmental and Resource Economics, 14*(1), 133-150.

Kwan S. R. (1998). The public television station in Taiwan: Problems and solutions. *Theory and Policy, 12*(3), 112-129. 關尚仁（1998）。〈我國公共電視當前面對之問題與因應之道〉，《理論與政策》，12: 112-129。

Lockwood, M. (1998). Contribution of contingent valuation and the other stated preference methods to evaluation of environmental policy. *Australian Economic Papers, 37*(3), 292-311.

Loomis, J., Brown, T. Lucero, B. & Peterson, G. (1996). Improving validity experiments of contingent valuation methods: Results of efforts to reduce the disparity of hypothetical and actual willingness to pay. *Land Economics, 72*(4), 450-461.

Markandya, A., Harou, P., Bellù, L. G. & Cistulli, V. (2002). *Environmental economics for sustainable growth: a handbook for practitioners*. Northampton, MA: Edward Elgar Publishing

Meyerhoff, J. & Liebe, U. (2006). Protest beliefs in contingent valuation: Explaining their motivation. *Ecological Economics, 57*(4), 583-594.

Mitchell, C. & Carson, R. T. (1989). *Using Surveys to Value Public Goods: The Contingent Valuation Method.* Washington D. C.: Johns Hopkins University Press.

Morgan, D. L. (1988). *Focus Groups as Qualitative Research* (Sage University Paper Series on Qualitative Research Methods, Vol. 16). Berverly Hills, CA: SAGE.

Morrison, M. D., Blamey, R. K., & Bennett, J. W. (2000). Minimizing payment vehicle bias in contingent valuation studies. *Environmental and Resource Economics, 16*(4), 407-422.

NHK“約束”評価委員会（2006）。《平成 17 年度“約束”評価報告書》。取自 NHK：http://www3.nhk.or.jp/pr/keiei/yakusoku/pdf/060627-001.pdf

NHK“約束”評価委員会（2007）。《平成 18 年度“約束”評価報告書》。取自 NHK：http://www3.nhk.or.jp/pr/keiei/yakusoku/pdf/070529-002.pdf

Noonan, D. S. (2003). Contingent valuation and cultural resources: a meta-analytic review of the Literature. *Journal of Cultural Economics, 27*(3-4), 159-176.

Nordenson, B. (2007). The Uncle Sam Solution. *Columbia Journalism Review*, 2007 September/ October.

Nordicity Group Ltd (2006). *Analysis of Government Support for Public Broadcasting and Other Culture in Canada.* Online Available: http://cbc.radio-canada.ca/submissions/crtc/2006/BNPH-2006-5_CBC_RC_Public-Broadcaster-Comparison.pdf

Nunes, P. (2002). *The Contingent Valuation of Natural Park.* UK: Edward Elgar Publishing.

O’Hagan, J. & Jennings, M. (2003). Public broadcasting in Europe: rational, licence fee and other issues. *Journal of Cultural Economics*, *27*(1), 31-56.

Papandrea, F. (1999). Willingness to pay for domestic television programming. *Journal of Cultural Economics*, *23*(3), 149-166.

PTS (2007a). *Annual Report 2006*. Taipei: Public Television Service Foundation.

PTS (2007b). *Public Service Broadcasting.* Taipei: Public Television Service Foundation. 公共電視（2007）。《追求共好：新世紀全球公共廣電服務》。台北市：財團法人公共電視文化事業基金會。

Raboy, M. (1995). Public service broadcasting in the context of globalization. In M. Raboy (Ed.), *Public Service Broadcasting for the 21st Century* (pp.1-19). UK: John Libbey Media.

Santagata, W. & Signorello, G. (2000). Contingent valuation of a cultural public good and policy design: the case of “Napoli Musei Aperti”. *Journal of Cultural Economics, 24*(Aug), 181-204.

Schart, A. (1999). Funding options and the public interest. *Diffusion,* p.4-5. Geneva, Switzerland: European Broadcasting Union.

Schwer, R. K. & Daneshvary, R. (1995). Willingness to pay for public television and the advent of “look-alike” cable television channels: a case study. *The Journal of Media Economics, 8*(3), 95-109.

Shepherd, R. (2007/1/18). License fee to rise by 3%. *Broadcact*. Retrieved from: http://www.broadcastnow.co.uk/news/licence_fee_to_rise_by_3.html?emailafriend=842153146

Smith, V. K. (2006). Fifty years of contingent valuation. In A. Alberini & J. R. Kahn

(Eds.). *Handbook on Contingent Valuation* (pp. 7-65), UK: Edward Elgar Publishing.

Spash, C. & Hanley, N. (1995). Preferences, information, and biodiversity preservation. *Ecological Economics, 12,* 191-208.

Syvertsen, T. (2003). Challenges to public television in the era of convergence and commercialization. *Television & New Media, 4*(2), 155-175.

Throsby, D. (2003). Determining the value of cultural goods: how much (or how little) does contingent valuation tell us? *Journal of Cultural Economics, 27*(3-4), 275-285.

Tracey, M. (1998). *The Decline and Fall of Public Service Broadcasting.* UK: Oxford University Press.

Tsuji, M. & Miyahara, S. (2007, Sep). Value of Japanese public broadcasting in the convergence of broadcasting and telecommunications. Paper presented at the 18th European Regional ITS Conference, Istanbul, Turkey.

Tsuji, M. (2007). Assessing performance on NHK promises: methods and approaches. *NHK Broadcasting Studies 2006-2007, 5,* 1-28.

Turner, R. K. (2001). The place of economic values in environmental valuation. In I. J. Bateman & K. G. Willis (Eds.). *Valuing Environmental Preference: Theory and Practice of the Contingent Valuation Method in the US, EU, and Developing Countries* (pp. 17-41), UK: Oxford.

Wiser, R. H. (2007). Using contingent valuation to explore willingness to pay for renewable energy: A comparison of collective and voluntary payment vehicles. *Ecological Economics, 62*(3-4), 419-432.

Wu, P. I., Lin, C. Y. & Su, M. T. (2005). The characteristics of protest responses and responses with “uncertain”: the impact of these responses on WTP estimation. *Survey Research: Method and Application. 17*, 65-110. 吳珮瑛、林佳穎、蘇明達（2005）。〈抗議性樣本與答覆「無法確定」樣本之特質：這一群人對假設市場價值估計結果之影響〉，《調查研究—方法與應用》，17：65-110。

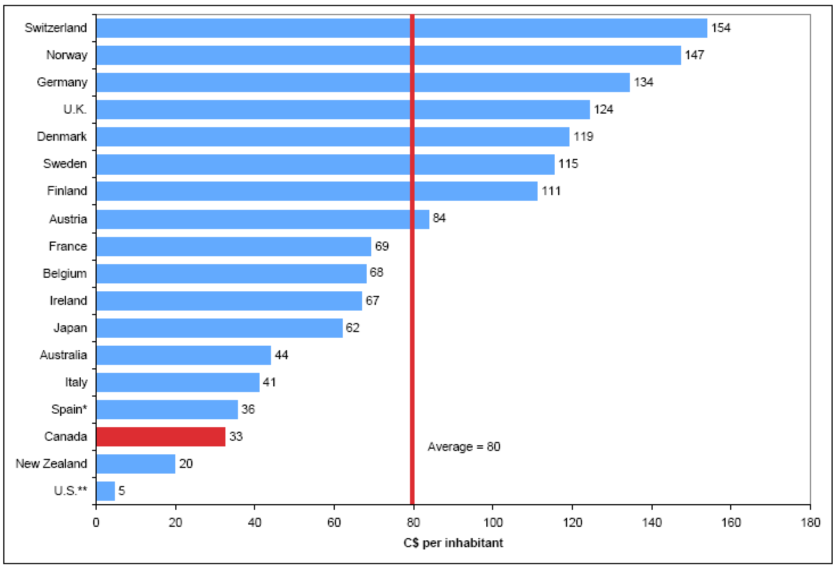
APPENDIX 1 AN INTERNATIONAL COMPARISON OF PUBLIC BROADCASTING AND PUBLIC FUNDING MECHANISM

Country	Public Broadcasters	Funding System
Australia	ABC (Australia Broadcasting Corporation), SBS (Special Broadcasting Service)	Annual appropriation from the federal government
Austria	ORF (Austrian Broadcasting Company)	License fee
Belgium	VRT— Flemish-language public broadcaster RTBR— French-language public broadcaster	Public funding for RTBR is granted by the Belgium Community and the amount granted is determined in the management contract. VRT' mission is linked to the financial envelope granted to it by the Flemish government each year.
Denmark	DR (Danish Broadcasting Corporation)	Household license radio/television fee, which is set by the Parliament every 4 year.
Finland	YLE	Household license fee determined by the government and collected by the regulatory authority, FICORA.
France	France Télévisions	License fees
Germany	ZDF, ARD	License fees
Ireland	RTE (Radio Telefis Éireann)	50% from the license fees
Italy	RAI (Radiotelevisione Italiana)	License fees
Japan	NHK (Nippon Hoso Kyokai)	Receiving fee charged from anyone who has equipments to receive NHK programs
New Zealand	TVNZ (Television New Zealand Limited)	Over 90% of its revenue is gained through commercial activity, slightly less than 10% of revenue comes from government sources.
Norway	NRK (Norsk Rikskringkasting)	Household license radio/television fee set by the Parliament.
Spain	RTVE	Television license fee
Sweden	SVT (Sveriges Television) SR (Sveriges Radio) UR (Utbildningsaradion)	Television license fee. Parliament decides the size and the allocation among the 3 public broadcasters.
Switzerland	SF DGS TSR TSI TvR	Radio/television license fee
United Kingdom	BBC S4C (Welsh-language service)	Television license fee. BBC World Service's income is from a Grant-in-Aid from the Foreign and Commonwealth Office S4C receive annual grant from Department of Culture, Media, and

		Sport.
United States	PBS (National Broadcasting Service) NPR (National Public Radio) PRI (National Radio Information)	PBS, NPR, PRI and other public broadcasters receive government funding through Corporation for Public Broadcasting (CPB), other federal government grants, state and local governments, state colleges, and public schools.
Hong Kong	RTHK (Radio Television Hong Kong)	Funded directly by the annual government allocation.
Korea	KBS (Korean Broadcasting System) MBC (Munhaw Broadcasting Corporation)	The main budget of KBS comes from the TV license fee under the national broadcasting law.
Canada	CBC (Canadian Broadcasting Corporation)	Primarily funded by the Parliamentary Appropriation for Operations.
Taiwan	PTS CTS Hakka TV Indigenous TV	PTS is funded mainly by government grants; CTS by advertising, Hakka TV by Council for Hakka Affairs; and Indigenous TV by Council of Indigenous Peoples, Executive Yuan

Source: Adapted from Nordicity Group Ltd (2006). *Analysis of Government Support for Public Broadcasting and Other Culture in Canada.* p. 12.

Per capita public funding for public broadcasters, 2004



Sources: Public funding data obtained from various sources; see Appendix A for list of data sources. Exchange rates from Bank of Canada. Population data from CIA World Factbook.
* Figures for Spain include an estimate for the public broadcasters of the autonomous regions.
** Data for fiscal year 2003

Source: Nordicity Group Ltd (2006). *Analysis of Government Support for Public Broadcasting and Other Culture in Canada.* p. 8.

APPENDIX 2 QUESTIONNAIRE

*計畫名稱：公共廣電願付價格衡量
*計畫主持人：傅祖壇 教授
*訪問地區：台、澎、金、馬
*訪問對象：20歲以上一般民眾
白天請打02-27884188轉分機308　找洪小姐
晚上請打02-27883224轉分機633、02-27884414轉分機633
02-27884424轉分機633、02-27884247轉分機633 找當日督導
＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊

您好，這裡是台北中央研究院，我們為了瞭解民眾對於公共電視的看法，正在進行一項電話訪問。 可不可以耽誤您幾分鐘，跟您請教一些問題：謝謝！

請問這是住家的電話嗎？（不是==>因為我們訪問的對象是住家，以後有機會再訪問您，謝謝！）

是住家→ 我們想請【您家中20歲以上，(民國76年12月底以前出生)，主要負責家裡開銷】的人來接受訪問，請問她/他現在在嗎？

合格受訪者→
您好，這裡是台北中央研究院，我們為了瞭解民眾對於公共電視的看法，正在進行一項電話訪問。可不可以擔誤您幾分鐘，跟您請教一些問題：謝謝！待會兒如果我題目唸得太快，或者您有聽不清楚的地方，請告訴我，我會再把題目唸一遍。

＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊

１請問您是民國幾年出生的？____年（只訪問民國76年12月底以前出生的人）
（「民國前出生」請鍵入96；「不知道/無法回答」鍵入97；「拒答」鍵入98）
（回答不知道、拒答者續答1__1題）

１__１您今年大概幾歲？
(1) 20歲- 29歲
(2) 30歲- 39歲
(3) 40歲- 49歲
(4) 50歲- 59歲
(5) 60歲及以上
(8) 拒答

２請問您家裡有安裝有線電視（第四台）嗎？
(1) 有
(2) 沒有
(7) 不知道
(8) 拒答

３請問您有看過公共電視嗎？
(1) 有看過
(2) 從來沒看過【跳答第5題】
(7) 不知道【跳答第5題】
(8) 拒答【跳答第5題】

４請問您上個月平均每禮拜收看公共電視的時間大約是多久？
(1) 沒看
(2) 不到半小時
(3) 半小時以上、不到一小時
(4) 一小時以上、不到三小時
(5) 三個小時以上、不到五小時
(6) 五小時以上
(7) 不知道
(8) 拒答

接下來，我們想請教您對公共電視台以及商業電視台一些功能上的看法。
５請問您認爲對公共電視來說，在「政治及社會議題上，提供中立及各種不同意見報導」這項功能重不重要？
(1) 非常重要
(2) 重要
(3) 不重要
(4) 非常不重要
(5) 沒什麼重要不重要
(7) 不知道
(8) 拒答

６請問，商業電視台在「政治及社會議題上，提供中立及各種不同意見報導」上的表現，您滿意不滿意？
(1) 非常滿意
(2) 滿意
(3) 不滿意
(4) 非常不滿意
(5) 沒什麼滿意不滿意
(7) 不知道/無意見
(8) 拒答

７請問您認爲對公共電視來說，「提供即時與正確的公眾事務訊息」這項功能重不重要？
(1) 非常重要
(2) 重要
(3) 不重要
(4) 非常不重要

(5) 沒什麼重要不重要
(7) 不知道
(8) 拒答

８請問商業電視台在「提供即時與正確的公眾事務訊息」這項功能上的表現，您滿意不滿意？
(1) 非常滿意
(2) 滿意
(3) 不滿意
(4) 非常不滿意
(5) 沒什麼滿意不滿意
(7) 不知道/無意見
(8) 拒答

９請問您認爲對公共電視來說，「提供適合不同年齡層收看的教育性節目」這項功能重不重要？
(1) 非常重要
(2) 重要
(3) 不重要
(4) 非常不重要
(5) 沒什麼重要不重要
(7) 不知道
(8) 拒答

１０請問商業電視台在「提供適合不同年齡層收看的教育性節目」這項功能上的表現，您滿意不滿意？
(1) 非常滿意
(2) 滿意
(3) 不滿意
(4) 非常不滿意
(5) 沒什麼滿意不滿意
(7) 不知道/無意見
(8) 拒答

１１請問您認爲對公共電視來說，「提供娛樂性高的節目」這項功能重不重要？
(1) 非常重要
(2) 重要
(3) 不重要
(4) 非常不重要
(5) 沒什麼重要不重要
(7) 不知道
(8) 拒答

１２請問商業電視台在「提供娛樂性高的節目」這項功能上的表現，您滿意不滿

意？
(1) 非常滿意
(2) 滿意
(3) 不滿意
(4) 非常不滿意
(5) 沒什麼滿意不滿意
(7) 不知道/無意見
(8) 拒答

１３請問您認為對公共電視來說，「提供本土文化及藝術的節目給下一代」這項功能重不重要？
(1) 非常重要
(2) 重要
(3) 不重要
(4) 非常不重要
(5) 沒什麼重要不重要
(7) 不知道
(8) 拒答

１４請問您滿意不滿意商業電視台在「提供本土文化及藝術的節目給下一代」這項功能上的表現？
(1) 非常滿意
(2) 滿意
(3) 不滿意
(4) 非常不滿意
(5) 沒什麼滿意不滿意
(7) 不知道/無意見
(8) 拒答

１５請問您認為對公共電視來說，「提供不受贊助廠商影響的節目」這項功能重不重要？
(1) 非常重要
(2) 重要
(3) 不重要
(4) 非常不重要
(5) 沒什麼重要不重要
(7) 不知道
(8) 拒答

１６目前商業電視台大部分都有廣告廠商贊助，請問您滿不滿意有廠商贊助的電視節目？
(1) 非常滿意
(2) 滿意
(3) 不滿意

(4) 非常不滿意
(5) 沒什麼滿意不滿意
(7) 不知道/無意見
(8) 拒答

１７請訪員自行勾選題組
(1) 題組A
(2) 題組B

A 題組
(1) 200 (跳答18_1題)
(2) 500 (跳答19_1題)
(3) 800 (跳答20_1題)
(4) 1200 (跳答21_1題)
(5) 2000 (跳答22_1題)
(6) 3000 (跳答23_1題)

接下來想請教您一個假設性的問題，您的回答只供學術分析之用，並不會影響現在的政策，請依照您實際的意願回答即可：
目前公共電視台是政府提供經費，來製作適合各個年齡層觀看的教育、文化藝術及新聞節目，而且節目沒有廣告。假設政府經費困難無法補助，公視必須向民眾收費才可以繼續營運〈經營〉，但是這項支出也會讓您的收入或買其他東西相對地減少。
１８＿１如果考慮到公視**對您家人的好處**，請問您願不願意為您家人，每年支付200元來維持公共電視的營運〈經營〉及發展？
(1) 願意 (跳答18_2題)
(2) 不願意 (跳答18_3題)
(7) 不知道 (跳答31題)
(8) 拒答 (跳答31題)

１８＿２那如果是400元的話，您願意嗎？
(1) 願意 (跳答31題)
(2) 不願意 (跳答31題)
(7) 不知道 (跳答31題)
(8) 拒答 (跳答31題)

１８＿３那如果是100元的話，您願意嗎？
(1) 願意 (跳答31題)
(2) 不願意，請說明原因【請鍵入並記錄在開放記錄表】(跳答31題)
(7) 不知道 (跳答31題)
(8) 拒答 (跳答31題)

【僅列出第１８題題組，１９－２３題組敘述皆同，唯金額不同】

B 題組
(1) 300 (跳答25_1題)

(2) 600 (跳答26_1題)
(3) 900 (跳答27_1題)
(4) 1500 (跳答28_1題)
(5) 2500 (跳答29_1題)
(6) 4000 (跳答30_1題)

接下來想請教您一個假設性的問題，您的回答只供學術分析之用，並不會影響現在的政策，請依照您實際的意願回答即可：
目前公共電視台是政府提供經費，來製作適合各個年齡層觀看的教育、文化藝術及新聞節目，而且節目沒有廣告。假設政府經費困難無法補助，公視必須向民眾收費才可以繼續營運〈經營〉，但是這項支出也會讓您的收入或買其他東西相對地減少。
２５＿１如果考慮到公視能**帶給全國民眾及社會的好處**，請問您願意每年支付300元來維持公共電視的營運〈經營〉及發展嗎？
(1) 願意 (跳答25_2題)
(2) 不願意 (跳答25_3題)
(7) 不知道 (跳答31題)
(8) 拒答 (跳答31題)

２５＿２那如果是600元的話，您願意嗎？
(1) 願意 (跳答31題)
(2) 不願意 (跳答31題)
(7) 不知道 (跳答31題)
(8) 拒答 (跳答31題)

２５＿３那如果是150元的話，您願意嗎？
(1) 願意 (跳答31題)
(2) 不願意，請說明原因【請鍵入並記錄在開放記錄表】(跳答31題)
(7) 不知道 (跳答31題)
(8) 拒答 (跳答31題)

【僅列出第２５題題組，２６－３０題組敘述皆同，唯金額不同】

３１您同不同意「如果今天公視停播了，商業電視台也可以取代它」的這個說法？
(1) 非常同意
(2) 同意
(3) 不同意
(4) 非常不同意
(5) 沒什麼同意不同意
(7) 不知道/無意見
(8) 拒答

３２您同不同意「公共電視應該民營化、經費自己籌措、不接受政府補助」這樣的看法？
(1) 非常同意

(2) 同意
(3) 不同意
(4) 非常不同意
(5) 沒什麼同意不同意
(7) 不知道/無意見
(8) 拒答

３３目前政府給公共電視的補助，平均每年每戶是150元，請問您覺得這個金額是太多、太少、還是差不多？
(1) 太多
(2) 有點多
(3) 差不多
(4) 有點少
(5) 太少
(7) 不知道/無意見
(8) 拒答
３４請問您上個月平均每天花多少時間在看電視節目？
(01) 都沒看
(02) 不到一個小時
(03) 一小時以上、不到三小時
(04) 三小時以上、不到五小時
(05) 五個小時以上、不到七小時
(06) 七個小時以上、不到九小時
(07) 超過九小時
(97) 不知道
(98) 拒答

３４＿１請問您平常看不看「文化教育的節目」？
(1) 經常看
(2) 偶爾看
(3) 很少看
(4) 不看
(7) 不知道
(8) 拒答

３５請問您平常看不看「新聞性節目」？
(1) 經常看
(2) 偶爾看
(3) 很少看
(4) 不看
(7) 不知道
(8) 拒答

３６請問您平常看不看「綜藝娛樂節目」？

(1) 經常看
(2) 偶爾看
(3) 很少看
(4) 不看
(7) 不知道
(8) 拒答

３７請問您平常看不看「戲劇節目」？
(1) 經常看
(2) 偶爾看
(3) 很少看
(4) 不看
(7) 不知道
(8) 拒答

３７＿１請問，就整體來說，您滿不滿意目前公共電視台提供的節目及服務？
(1) 非常滿意
(2) 滿意
(3) 不滿意
(4) 非常不滿意
(5) 沒什麼滿意不滿意
(7) 不知道/無意見
(8) 拒答

最後是有關您個人基本資料的問題，這些資料絕對保密並僅作學術分析。
３８性別（由訪員自行判斷鍵入）：
(1) 男
(2) 女

３９請問您的教育程度（最高讀到哪裡）？
(01) 不識字
(02) 識字但未入學
(03) 小學
(04) 初/國中
(05) 高中職
(06) 專科
(07) 大學
(08) 研究所及以上
(09) 其他(請說明)【請鍵入並記錄在開放記錄表】
(97) 不知道
(98) 拒答

４０請問您的婚姻狀況是未婚、已婚、離婚、分居、還是喪偶？
(1) 未婚

(2) 已婚
(3) 離婚
(4) 分居
(5) 寡居(喪偶)
(6) 其他(請說明)【請鍵入並記錄在開放記錄表】
(8) 拒答

４１請問您父親是台灣客家人、台灣閩南人、大陸各省市還是原住民？
(1) 台灣客家人
(2) 台灣閩南人
(3) 大陸各省市
(4) 台灣原住民
(5) 其他(請說明) 【請鍵入並記錄在開放記錄表】
(7) 不知道
(8) 拒答

４２請問您的同住家人中，有沒有下面年齡層的小朋友（複選）？
(1) 六歲(含)以下的學齡前兒童
(2) 七歲(含)以上、十八歲以下的青少年
(3) 都沒有
(8) 拒答

４３請問您整個家庭（包括同住家人）的平均月收入是多少？
(01) 無收入
(02) 2萬(含)以下
(03) 2萬以上4萬(含)以下
(04) 4萬以上6萬(含)以下
(05) 6萬以上8萬(含)以下
(06) 8萬以上10萬(含)以下
(07) 10萬以上12萬(含)以下
(08) 12萬以上14萬(含)以下
(09) 14萬以上16萬(含)以下
(10) 16萬以上18萬(含)以下
(11) 18萬以上20萬(含)以下
(12) 20萬以上
(97) 不知道
(98) 拒答

４４請問您使用的家用電話號碼當中（含住商共用，但不含手機），主要用來接聽電話的號碼有幾個？ 【至少要為「1」，「不知道」鍵入97，「拒答」鍵入98】

４５請問這支電話的地區是XX（請見括號內）的那一個縣市呢？___縣市___鄉/鎮/市/區【無區碼：北部】【032～037：桃竹苗】【038～039、089：東部】【042～049：中部】【05：中南部】【06、07、087～088：南部】【082～083：金門

馬祖】

(01) 台北市　　(02) 台北縣〈跳答 47〉

(03) 基隆市〈跳答 48〉　　(04) 桃園縣〈跳答 49〉

(05) 新竹縣〈跳答 50〉　　(06) 新竹市〈跳答 51〉

(07) 苗栗縣〈跳答 52〉　　(08) 台中縣〈跳答 53〉

(09) 台中市〈跳答 54〉　　(10) 彰化縣〈跳答 55〉

(11) 南投縣〈跳答 56〉　　(12) 雲林縣〈跳答 57〉

(13) 嘉義縣〈跳答 58〉　　(14) 嘉義市〈跳答 59〉

(15) 台南縣〈跳答 60〉　　(16) 台南市〈跳答 61〉

(17) 高雄縣〈跳答 62〉　　(18) 高雄市〈跳答 63〉

(19) 屏東縣〈跳答 64〉　　(20) 宜蘭縣〈跳答 65〉

(21) 花蓮縣〈跳答 66〉　　(22) 台東縣〈跳答 67〉

(23) 澎湖縣〈跳答 68〉　　(24) 金門縣〈跳答 69〉

(25) 連江縣〈跳答 70〉　　(97) 不知道

(98) 拒答

＊＊＊ 謝謝您接受我們的訪問，中研院祝您健康快樂！！ ＊＊＊

＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊

＊ 訪員編號：____________　訪問日期：____________

＊ 樣本編號：　　　　電話號碼：(　　)

＊ 受訪者性別：□男　□女

＊ 使用語言：□台語　□國語　□客語　□國台語　□國客語

＊ 受訪者回答的可信度：□大部份不可信　□有些不可信　□大致可信　□非常可信

APPENDIX 3 OPEN-ENDED REASONS FOR NOT PAYING FOR THE CHARGE

Rec. No.	Reasons Provided by Respondents	Rec. No.	Reasons Provided by Respondents
(1) It is the government that should be responsible for it. (N=50)			
636	應該由國家經營才對	3758	應由政府補助
2891	政府負責	5723	這是政府應該付的錢
4261	政府負責	3355	應該政府補助，已納稅
1484	應由政府負責	3773	公視是公家的，不應由民眾付費
3583	應該是政府支付	5719	該是政府的責任不應再收費
5355	這應該是政府要去補助的,若經費困難就去討黨產	5972	這是政府應該支出的
201	應由政府支助經費	4866	公視屬公益性質既由政府設立 ,應由預算支付
546	這是政府本來就應該做的工作	635	認為公共電視應為公營，由國家或國會編列預算運作，經費取自於納稅人，不應重複課稅或繳費
818	應由政府支出	2965	政府應用稅金規劃
2941	政府經營,不應轉嫁給民眾	4269	政府補助
3271	由政府支出就好了	4801	認為應由國家付.
1800	賺錢很辛苦，應該由政府補助	1781	費用太高.政府從其他地方挪過來補助.或是特別預算
3572	國家應該支付	1913	應該由政府補助依所得按比例繳納
4480	國家應支付所有費用	2521	自己偏向娛樂.如果想提升文化.應該由政府負擔
4926	政府應編列預算,不應人民買單	3466	不應付錢應由政府補助
500	既然是政府補助,收錢怪怪的,不應收錢,如果收錢,不如關掉	3580	應由政府出錢贊助
1165	政府應付	3956	性質不同，應政府給，不應跟民眾收錢
2394	太貴了.政府負責	4057	政府責任，不應給民眾負擔
4127	政府負責	4242	政府要去負責,有稅收.
559	應由政府負擔	4369	認為不需要由人民支付.
1087	應該由政府支出	4244	政府負責
1460	政府負責	21	公視應由政府出錢
1881	應由政府編列預算	645	費用應該都由政府支出
3142	應由政府負責	2217	政府補助
3374	政府應該想辦法	2814	本應政府支付
(2) The expense should be included in the taxes so I won't pay any extra charge. (N=15)			
3529	應由稅金支出	3613	已繳稅不應再收
4778	百姓已繳了很多稅了沒必要再繳了	107	人民繳稅政府負責
3894	應由稅金支出	300	每年都有繳稅了
4277	已經繳稅了	3029	政府稅賦過重
1477	繳稅了，不願再付費，應由公家支付	4652	我已經是納稅人有繳過稅了
706	已經納稅.政府負責	5522	已繳稅不應再收費
211	已經繳很多稅了，不想再多付錢	769	政府已經扣太多稅了不應該再向人民收費
5153	已有繳稅不必額外再繳		

(3) We should be able to afford better TV programming if the government did not waste so much money. (N=23)			
191	因為民進黨執政所以不願意	860	政府可將浪費在其他地方的錢用在這
1726	政府的公信力不夠，民眾不相信付費後的品質	5751	政府做好,要百姓出錢,都沒問題,反之,則不付
4756	政府太有錢只救濟國外不救濟國人	1137	政府及大環境影響所以不願意
5449	不信任政府	1525	人民苦哈哈.政府應該負擔.不該讓人民出錢.
600	政府都不知道把錢投去哪，去跟陳水扁要	4557	政治太亂,貪污嚴重,一毛都不付
2637	政府愛亂花錢就用由他支付就好了	1325	政府有錢
3426	經濟蕭條.執政政府負責	2821	政府有錢,但人民沒錢
368	政府應該要出錢但卻亂花錢，所以我不願意付	2421	政府在保持中立,公益活動,人民休閒娛樂,這方面做的不夠好,要人民出錢那就不要做了,懷疑節目的品質,可多找贊助廠商.
1965	已經繳太多錢給政府了	4954	政府有錢
2997	景氣不好、收入少、政局太亂	2424	政府有錢浪費,沒錢補助
5629	政府在經費上使用不當,也不應由人民支付	4417	政府都不做事不應要民眾再負擔
4580	政府還是很有錢的		
(4) I have already paid for cable TV (N=15)			
1724	已付有線電視費用	1910	認為費用應該已包含在第四台
4633	有其他台可選擇-已付第四台的錢	217	第四台已經要付費還要另外付費不合理
2170	已經花天線錢了.不願再另付	3371	已付第四台的錢
3056	已有第四台收費	3626	錢都繳給第四台了,不願再額外支出
3727	因已繳第四台的錢	196	已支付第四台費用,所以不重複支付
4422	看第四台都不用出錢,更不願意出錢看公視	707	已經付費給第四台，覺得沒必要再多付這個費用，少看一台無所謂
1341	有交第四台的錢	933	景氣不好不願再花錢第四台已付費
4077	第四台就有繳錢了		
(5) PTS should support itself by means of advertising or sponsorship (N=14)			
1447	可以跟廠商合作,用廣告來平衡電視台的支出	679	光要人民出錢很難,公視應用別的方法賺錢
1005	公視可以找廠商贊助就可以了	5937	公視可以收廣告費
1006	公視可以收取廣告因應支出	1123	應找贊助廠商
1695	應由政府及合適廠商支持贊助	5338	應該藉由廣告收益,不該向人民收費
1951	應由政府統籌或廠商贊助	2890	電視台自行負責不應向民眾收
1663	應該使用者付費，而不是人人都要付	3367	應該要找企業補助
2107	公視可以找廣告商贊助	5834	公視資金自己籌措
(6) It is unfair to ask me to pay more money (N=22)			
2117	若每戶繳就不願意	4558	沒必要
4002	停播就好了	670	只要是付錢就不看
1953	要錢就不要	1964	不願意花錢看電視
5035	只要不要叫我付錢就可以了	3349	不看就好了，多往郊外走
2655	看電視為什麼要付費	3603	出錢就不願意看
4181	有公視多此一舉	1345	多支出花錢不願意
708	其他無線台都不收費.相對就不應收費	2369	不接受付費

1220	公視沒錢就廢掉.不應收費	3432	不想額外支付費用
2793	覺得性質不同不應收費	4929	不管是政府支出還是花人民的錢 ,覺得都沒必要
3412	不應全民付費	5759	沒有必要付錢
554	不想付費	1607	有多少錢做多少事
(7) It depends on the quality of programs, but I have insufficient information to judge by. (N=8)			
3558	不是錢的問題，節目要做得好	2995	目前很少看,要看節目表現才會付錢
5067	還是要看節目品質好不好,好的才願意	2218	要看節目的品質而定
1250	根本不知道節目有哪些內容	4973	要看內容再做決定
4947	要看節目的品質及接受度如果好才付錢	5083	要看節目好壞再做決定
(8) PTS can be substituted by many other media. (N=27)			
1381	目前電視台太多可供選擇	1109	可以看商業電視台
4735	還有其它電視節目可以看,不一定非看公視	3105	現在頻道很多.可有可無.如果政府無法負擔.可由公益團體接手
603	第四台就有很多節目了	36	公視可有可無, 因其他電視台太多
2924	有其他台可選擇	3300	媒體太多,公視存在沒差別
2037	還有其他節目可以選擇公視為非必要	3352	電視台選擇太多.看電視時間沒有很多.
1679	不一定要看電視	3871	電視台選擇性很多
1404	公視很少看,第四台僅 500 元且節目豐富	529	看第四台的選擇很多,不一定要看公視,不想重複收費
4076	可以選其他台來看	1143	很少看公視,可以看別台
2265	可以有其他頻道或管道得知消息或節目，不一定單靠公共電視	76	節目很多,公共電視不是很必要 ，且看電視時間不多
3277	還有商業電視台可以看	3101	現實需求.不一定要看公視.
3591	因有其他電視台可看	3942	商業電視台也有相同性質的節目
1243	使用不多，網路可查，額外支付沒必要	1926	1.電視台很多不一定要看公視 2.看電視時間少
5307	可以看其它的電視台	3870	還有其他電視台可看
71	不是錢的問題,那就看商業電視台好了		
(9) The required amount of money is too high due to budget constraint. (N=58)			
850	經濟上很吃力	1875	沒有能力
3602	300 元還可以試試看	2446	太貴了
5407	物價漲,無餘錢支出	3247	經濟不好負擔不起
5706	收入不固定,無法支付	3295	沒錢生活
1629	沒錢連第四台都沒裝	3366	有其他經濟考量
2694	景氣不好，沒有多餘的預算	3817	經濟景氣不好
3900	經濟不景氣、要省錢	4232	景氣差,支出緊縮
4154	有其他經濟考量	3949	現在沒有經濟能力,失業中無法支付
70	沒有錢	4931	景氣不好,勞保費提高,生活費不夠用
877	沒有收入無法支付	2004	老人家沒賺錢.
1149	價錢仍太高且徵收困難對沒電視的人不公平(沒看還要付錢)	2147	時機不好，價錢太高
1248	收費太貴, 1000 以下	2219	經濟有問題
1711	這個價錢(1250 元)太多了	3452	金額太高
2051	太貴了	5992	景氣不好,一毛都不付
2174	增加負擔	631	沒有多餘的錢
2380	太貴了，800 元就願意	1195	要多花錢

3063	收支不平衡，沒有預算	1498	若全民分攤的話付費 600 元太貴了
3542	太貴了	2011	還是太貴
3840	比第四台收費貴太多	2162	沒錢
5707	景氣不好沒有餘錢支出	2779	沒錢/負擔不起
60	太貴了	5552	收入不夠多
1605	經濟景氣不好負擔不起	5820	薪水不夠多
3182	金額太高, 500 元內可以接受	435	沒錢.沒工作.收入不好.沒辦法
4438	會增加經濟負擔	728	錢不好賺.1000 吃飯就很好用了
5869	沒錢而且家中只能看民視跟華視兩台而已	5619	金額與台數比例受訪者覺得太高及公視節目不多收視選擇性少
935	因經濟因素必須養家,且房貸重	2828	經濟不好,所以 1000 元不付
1410	做工人自己都快養不活	3985	日子難過物價高漲沒辦法再支出
2928	價格太高,有第四台不需要	4126	價格太高
3482	經濟不好.找不到工作	869	金額太高
(10) **I don't really spend much time watching PTS. (N=78)**			
3594	連第四台都不裝了	739	沒常在看
3196	很少看	840	很少看
598	不太看公視	1335	第四台都不裝了
1748	很少看.不願意付	1592	都沒看公視不應出錢
2528	因為少看	4074	很少看
2534	很少在看	4255	因沒看
338	沒啥看電視也不知公視的價值	5537	不喜歡小孩看電視
3172	不看公視不出錢	1096	公視目前並不普及
5211	不看電視	1256	根本不看公視
630	因為很少看	1904	很少看
733	看電視時間很少需求不高	2200	幾乎不看公視
4466	很少看公視	4740	很少看.所以不願意
3799	人口少(二人),看電視時間少	1154	幾乎不看
4531	很少看公視,且這應該是國家政府的事	1729	很少看
5786	經濟已經不好不想多花錢,很少看公視	2386	幾乎很少看公視
354	沒在看	3937	因不看
803	因為不喜歡看電視，且沒有家人	1593	沒看公視不應繳費
1217	平時沒什麼時間在看公視	1750	不常收看公視
1247	不看公共電視	2719	本身就少看電視
1553	很少看電視非錢問題	2754	很少看電視，看電視不如看書
2626	都不看公共電視	3089	幾乎不看公視
3438	很少看電視.沒時間看	4241	很少看
4085	不太看公共電視	1039	沒在看公視.覺得不需花這錢
5328	很少看公視	1497	很少收看
4395	平常都看股票台，所以少一台也沒關係	1528	沒有小朋友且很少看電視,且我們家是以節省開銷為主
2355	很少看不願額外再付費	1717	不看所以不願意
3678	沒在看	5289	很少看公視
4785	沒有常看	19	個人不愛看電視.不是錢的問題
820	覺得公視不是需求度很高的節目,不應花這種錢	513	因很少看,但公視應是政府補助,而不應要民眾支付
567	都沒有在看	128	沒有在看電視
1549	很少看	1151	沒看過公視/不清楚播出什麼節目
2320	一週才看 1.2 小時.重要性沒那麼高	1566	沒有看過公視
2512	因為家人都幾乎不看電視	4289	很少看

2917	很少看	3822	不曾看過公視,沒需求
3574	幾乎不看.所以不想付費	4589	很少看
5305	很少看不願付費	4892	已經有第四台,公視很少看
5732	很少看不值再花錢	4013	很少看不願付費
5873	很少看不想付費	4034	很少看沒那個必要
2574	比較少看電視	4239	很少看電視不願付費
(11)The current performance of PTS is below expectation. (N=18)			
2426	現在很少在看，好的戲劇不多	701	覺得被綠化被政府利用
950	公共電視台製作的節目都不喜歡，所以不支付	1310	因為不認同現在公視所提供之節目
2064	節目達不到好品質	3364	目前的品質沒必要多付錢
3612	怕是不是會偏向某個政黨	2566	節目乏味,完全不考慮.
4303	節目不好看,所以不願意	227	少看加上對公共電視預期有落差
510	公視的節目選擇性低	4396	公共電視的節目太少
3920	做得不夠好	5187	目前沒有看到公益或超然節目
1824	節目不好看	4145	以目前的品質不值得付錢
330	政治不中立(指公視新聞節目),有偏頗(追問過)	4205	以目前的品質不值得付錢
(12)I'd rather spend the money to those in need. (N=3)			
1511	寧願捐錢幫助別人	1861	已經付錢幫助弱勢團體
114	寧可救濟窮人		