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A CASE STUDY OF TELEVISION PROGRAM-TYPE DIVERSITY: THE PROGRAMMING IN JAPAN'S VIDEO DISTRIBUTION INDUSTRY

By

Goro Oba

A THESIS

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

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ABSTRACT

A CASE STUDY OF TELEVISION PROGRAM-TYPE DIVERSITY: THE PROGRAMMING IN JAPAN'S VIDEO DISTRIBUTION INDUSTRY

By

Goro Oba

This thesis studies the program-type diversity of Japan's video distribution industry in the multichannel era. Many U.S. media studies suggest that whereas broadcast networks attempt to maximize audience with similar, mass appeal content under limited channel capacity, more diverse presentations can be offered as the number of channels increases with the advent of multichannel media. It is assumed that diverse programming would increase the likelihood of maximizing the satisfaction of a wider range of viewers. In Japan, however, multichannel media is not widely accepted, and even subscribers to the media mainly watch the retransmission of broadcasting. The key to understand these phenomena might lie in the programming of broadcasters. If Japan's over-the-air broadcast networks offer diverse types of programming to meet various viewers' preferences, cable television may not be perceived as adding significant diversity. We discuss how much diverse programming is attained by Japan's over-the-air broadcasting and cablecasting with comparative research of those programming schedules. It is discovered that while more program-type options per hour are available on cablecasting, in the aggregate broadcasting provides diverse programming nearly equivalent to cablecasting.

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To my wife, Mitsuko Oba, and my parents, Yoshiki and Etsuko Oba

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INTRODUCTION

It has been long since the concept of "multichannel" came to the forefront. Resulting from new video distribution services with large channel capacity, the number of channels available to viewers has proliferated from single to hundreds. For viewers, nonetheless, whether or not their favorite programming is offered on a large number of channels might be more significant than how many channels are available. If almost all channels provided quite similar content, most viewers would not reap the benefits of the proliferation of channels since favorite content possibly differs among viewers. Thus, in order to maximize the utility of a wider range of viewers, various types of programming should be offered. In other words, the efficiency of multichannel media might be evaluated by the degree to which the media can meet various viewers' needs by providing diverse programming. In this thesis, we attempt to clarify the significance of program-type diversity in video distribution systems, discussing how much diverse programming is attained by Japan's over-the-air broadcasting and cablecasting with comparative research of those programming schedules.

In this introductory chapter, we begin with an analysis of the structure and development of Japan's video distribution industry, followed by the observation of viewers' attitude toward broadcasting and cablecasting. Chapter 1 defines the idea of program-type diversity. In Chapter 2, we review research literature in order to understand the theoretical points associated with program-type diversity. Knowledge obtained through literature review is developed further in Chapter 3, which explores some possible factors influencing program-type diversity. Chapter 4 addresses research questions and methodology, followed by Chapter 5, in which results of research are

fully analyzed and discussed. Finally, the key arguments of this thesis, concluding comments, and future research are provided in Chapter 6.

Japan's Broadcasting Industry

Watching television is quite popular conduct in Japan and probably as integrated into daily life as in the United States of America. However, the general attitude of Japanese toward television viewing differs significantly from the U.S., in which a large number of individuals not only have a range of choice among a number of channels but also enjoy accessing various channels through cable or satellite television. In contrast, nearly half of Japanese choose to have only conventional over-the-air broadcasting. Take cable television for example. As of 2002, 69.2 percent of U.S. television households but only 26.8 percent of Japan's television households subscribed to cable television (Ministry of Public Management, Home Affairs, Posts and Telecommunications, 2002; National Cable and Telecommunications Association, 2003). Citing this low penetration, some scholars and media analysts assert that cable television is not well developed in Japan (Tokinoya, 1996; Cooper-Chen, 1997; Nishi, 1997; Hasegawa, 1998; Nakako, 2002). Indeed, it seems that Japan does not have a vastly successful cable television industry, as the total revenue of the industry is approximately 10 percent of that of the commercial broadcast industry, and most of the new entrants to the cable industry have huge cumulative losses (Mori, 2000).¹

We will look at the industry structure of Japan's conventional broadcasting,

¹ The total revenue of commercial over-the-air broadcasters and cablecasters in 2001 was 2.58 trillion yen, 21.5 billion dollars, and 272 billion yen, 2.3 billion dollars, respectively. All figures are converted at 120 yen to U.S. one dollar, according to an average exchange rate for the past few years. Note that the figure for commercial over-the-air broadcasters includes that for radio stations (Ministry of Public Management, Home Affairs, Posts and Telecommunications, 2002).

which has overwhelming power in the video distribution industry (see Table 1). Japan's broadcasting system resembles neither that of the U.S., where commercial broadcasting has dominated, nor those of many Asian and European countries, where broadcasting has been mainly operated by the government. Indeed, two broadcast systems, commercial and public, have functioned and prospered in Japan. Tokinoya (1996) notes that today's development in Japanese broadcasting has resulted from well-balanced competition between commercial broadcasters and a public broadcaster. There are 127 commercial over-the-air television broadcasters in Japan.

Table 1	: Profile of	Japan's	Over-the-air	Broadcast	Networks
---------	--------------	---------	--------------	-----------	----------

Nippon Television Network (NTV)
(1) August 1953 (2) 1966 (3) 30 (4) 328 013 million ven
(5) Yomun Shimbun Newspaper, Tsuneo Watanabe, Yomun Television Broadcasting
Tokyo Broadcasting Systems (TBS)
(1) April 1955 (2) 1959 (3) 28 (4) 260,676 million yen
(5) Japan Trustee Services Bank, Mitsubishi Trust & Banking, Sumitomo Mitsui Banking
Fuji Television (CX)
(1) March 1959 (2) 1966 (3) 28 (4) 412,237 million yen
(5) Nippon Broadcasting System, Toho, Nippon Cultural Broadcasting
TV Asahi / Asahi National Broadcasting (ANB)
(1) February 1959 (2) 1970 (3) 26 (4) 205,597 million yen
(5) Asahi Shimbun Newspaper, Toei, Shogakkan Magazine Publishers
Television Tokyo (TX)
(1) April 1964 (2) 1982 (3) 6 (4) 98,170 million yen
(5) Nihon Keizai Shimbun Newspaper, Nippon Steel, Nippon Life Insurance
Nihon Hoso Kyokai (NHK)
(1) February 1953 (3) 54 (4) 652,561 million yen

 Date of Key Station Started; (2) Year of Network Formed;
 Number of Affiliated Stations; (4) Operating Revenue in 2000; (3) Top Shareholders Sources: NTV, TBS, CX, ANB, TX, NHK, Mizuho Corporate Bank

The main commercial broadcasters are five key stations, Nippon Television Network (NTV), Tokyo Broadcasting System (TBS), Fuji Television (CX), Asahi National Broadcasting (ANB), and Television Tokyo (TX). While commercial stations are technically prohibited from forming networks by the Broadcast Law, cooperative arrangements between key stations in Tokyo and local affiliates have formed networks in all but name (Cooper-Chen, 1997). The key stations do in fact provide the local affiliated stations with more than 80 percent of their programming. In addition to network affiliates, there exist 13 independent stations. Nihon Hoso Kyokai (NHK or Japan Broadcast Corporation), the public broadcaster, has a general channel and an educational channel. NHK finances its operations from the monthly receiving fee that is collected from television set owners, as it does not accept any advertising or financial assistance from the government. As of 2003, the receiving fee is 1,395 yen, around \$11.63, per month.

NHK went on the air on February 1, 1953, followed by NTV in August of the same year. In 1957 when the first allocation plan of television signals was implemented, more than 30 local television stations were licensed. The 1960s became the television era in Japan (Tadokoro, 1978, p.65). In 1967, channels in the UHF spectrum were opened for television transmission, resulting in many regional and local UHF stations commencing operations. Four commercial networks offering general programming had already been launched by 1970. Total revenue in the broadcasting industry had increased approximately tenfold for the past 30 years from around 220 billion yen in 1969 to around 2.2 trillion yen in 1999, larger than the growth in Japan's gross national product, 7.5 times, for the 30 years (Mizuho Corporate Bank, 2002). By Article 2-2 of the Broadcast Law, broadcasters are obliged to make their broadcasting receivable throughout the broadcast area concerned (Ministry of Posts and Telecommunications, 2001).

According to the national channel allocation plan, approximately 90 percent of

households can receive more than four terrestrial commercial broadcasting channels in addition to two NHK channels (NHK 2001a; Ministry of Public Management, Home Affairs, Posts and Telecommunications, 2002). In reality, nonetheless, many households receive terrestrial services via cable on the grounds that they live in the mountains or remote areas where over-the-air signals are not received clearly.

History of Japanese and U.S. Cablecasting

As a retransmission medium and an originator of television programming, cable television should be in fierce competition with broadcast television (Baldwin et al., 1996). We will now discuss the transition of Japanese cable television chiefly from the relevant policies. Communications policymakers are in position to affect the structure and functioning of an industry (Napoli, 2001). Certainly, the cable television industry is no exception.

In 1955, two years later than the launch of the first broadcasting service, community antenna television (CATV), a prototype of cable television, was designed for remote areas, where the reception of over-the-air broadcasting was poor, to receive the retransmission of programs provided by broadcasters. In the late 1960s, cable television drew unprecedented attention as a new medium because of the possibility of the coaxial cable, yielding a significantly greater carrying capacity. This led to the rush of applications for starting cable services in various parts of the country. It is likened to the "first cable television boom" (Ishimaru, 1994). The boom, however, vanished quickly. The Cable Television Law established in 1972 by the Ministry of Posts and Telecommunications (MPT), a supervisory authority at the time, contained strong regulation. The tone of the MPT of the day was the following: "While cable television,

with the broad data-carrying capacity, has a possibility of serving as telecommunications circuits, this sort of utilization is a future problem and, therefore, not admited for the present" (Ishimaru, 1994). Accordingly, the use of cable television was substantially limited only to the retransmission of over-the-air broadcasting. In other words, cable television was regarded as no more than ancillary to terrestrial broadcasting, and the unique characteristics were downplayed.

But then, by the Broadcast Law, broadcasters were obliged to endeavor to make their broadcasting receivable throughout the broadcast area concerned, as noted earlier. Consequently, even the demand for retransmission of over-the-air broadcasting, the only raison d'etre of cable television in those days, was supposed to disappear. Okamura (1993) notes that the possibility and, subsequently, the development of cable television were remarkably hindered by a sufficient degree of protectionism of the MPT, attempting to give favorite treatment to existing broadcasters. According to Witter (1996, A1), "The nation's fledgling cable industry has never recovered from onerous limits once imposed by the MPT at the behest of Japan's five big nationwide broadcast networks."

Besides, government restrictions limited companies to owning and operating only one cable system serving a restricted local area in order to revitalize the local economy (Kahaner, 1996). Thus, only local companies were allowed to invest in the cable business. Restrictions were also placed on foreign ownership.² As a result, cable systems in Japan were fragmented into many small, single-system operations. (Sky PerfecTV, 2001; Nakako, 2002). Japan's cablecasters still had tough times in the 1980s.

² In Japan, there were no limitations on the number of imported programs unless the companies delivering the imported programming were either entirely or primarily Japanese owned. (Kahaner, 1996; Cooper-Chen, 1997; Oto, 2002).

The primary reasons were the lack of programing and program distribution systems, and, therefore, enterpreneurs were afraid of not being able to get a return on huge initial investment.

It was not until the late 1980s that "urban-type" cable television systems, which have 10,000 or more drop line terminals, more than five channels for programming other than retransmission, and two-way functions, finally started operations. The launching of urban cable television systems, the new programming suppliers, and the development of communication satellites all combined to herald the "second cable television boom" (Okamura, 1993; Ishimaru, 1994). Immediately after the boom, however, the asset-inflated bubble economy burst in Japan. As of 1993, Okamura (1993) noted that the temporary frenzy had gone in an incredibly short time.

The 1993 deregulation policy allowed a single company to operate multiple cable systems and more than one operator in each region (Kahaner, 1996; Hasegawa, 1998). In response to the emergence of multiple system operators (MSOs) and a relaxation of the foreign ownership limit from the previous 20 percent to 33 percent, many new networks are launched as program distributors for multichannel cable television services.³ It is important to note that the MPT was trying to encourage U.S. firms to take advantages of the deregulation in order to bring in U.S. cable management know-how, capital, and programming (Kahaner, 1996). During 1995, four United States-Japan joint venture groups announced their plans to enter Japan's cable and satellite markets (Friedland, 1994; Weinberg, 1995; as cited in Hasegawa, 1998, p. 290). While the market share by the top three cable operators is 16 percent, Nakako (2002)

³ The strong ownership interests of MSOs in cable networks are one of the most prominent features of cable industry structure (Parsons and Frieden, 1998). In Japan, cable networks are often called "CS networks" since their programming is distributed via communications satellite to cable systems or

claims that further consolidation is necessary to finance and manage the cable industry, together with the new programming.⁴ The rationale behind his assertion is that MSOs, which control a number of systems and millions of subscribers, can easily achieve economies of scale.

In sharp contrast to Japan's cable television industry suffering from the low penetration rate, its American counterpart has expanded astoundingly, described as "the most successful media enterprise of the past two decades" (Dizard, 1997, p.120). Yet, as well as in Japan, cable television had been strongly regulated in the U.S. by the mid 1970s. Looking at CATV as ancillary to broadcasting, the Federal Communications Commission (FCC) was initially opposed to cable origination (Baldwin and McVoy, 1988). Later, the FCC determined that cable television might pose a financial threat to the development of a broadcasting system nationwide. As a consequence, the FCC's intent on protecting broadcasting placed numerous restrictions on cable that prevented it from penetrating larger cities and capped industry growth. The cablecasters in the U.S. were severely discouraged from the commercial possibilities of pay cable, especially the most attractive and profitable kinds of programming, such as movies, sports, and series, by the 1970 rules. Furthermore, cable systems were required to carry signals from the nearest network affiliate stations and prevented from importing a stronger station from farther away by the 1972 rules (Parsons and Frieden, 1998).

Importantly, cable television had not developed well in both Japan and the U.S. until the mid 1970s. The gap between the penetration of cable television in Japan and

individual households with small dishes.

⁴ In the U.S., MSOs have fostered concerns about the potential for anticompetitive practice in the industry. For instance, there is worry that distributors have unhealthy control over the creation and distribution of cable programming by virtue of their relationship (Parsons and Frieden, 1998). Yet, Japan's cable industry might not be at the stage in which such harmful effects are argued.

that of the American counterpart began widening after the era. Indeed, in the U.S., the FCC repealed the rules in July of 1980, sweeping away the remaining principal components of the 1960-1970s rulemaking, on the ground that, in the commission's studies, cable television could not be shown to have a serious deleterious financial impact on local broadcasting. The elimination of restrictions on pay cable and the success of the national satellite distribution system spurred cable television, with the stirrings of the cable software industry (Parsons and Frieden, 1998). Baldwin and McVoy (1988, p.6) note, "Cable became a true multichannel medium with basic and premium services from satellites making cable attractive to urban areas in addition to its traditional markets." Indeed, U.S. cable industries experienced huge growth from the late 1970s through the early 1980s: The 3,506 systems serving nearly 10 million subscribers in 1975 leaped to 6,600 systems serving nearly 32 million subscribers just ten years later (Television Digest, 2001).

The comparison of the U.S. policy for cable television and that of Japan makes it clear that in the vicinity of the mid 1970s, crucial perception gaps toward cable television emarged between the two nations' policy makers. Certainly, Japanese policy makers, which continued to regard cablecasting as no more than ancillary to terrestrial broadcasting, did not acknowledge the unique characteristics of cable television and accordingly did not introduce laissez-faire philosophy into the cable market. From what has been discussed above, it is quite probable that government policies determine a paradigm for development in cable television. Yet, the question of why many Americans have accepted cable television and Japanese have not remains unsettled.

American Attitude toward and Change in Television Viewing

Table 2 illustrates the comparison of television viewing by households with and without cable in the U.S. In cable homes, cable sources account for 57.4 percent of all television viewing, and the share of audience by commercial broadcast networks and independent stations drops to 40.4 percent in cable homes from 93.3 percent in noncable homes.

 Table 2: Television Viewing Shares by Services in U.S. Cable and

 Noncable Homes

••••••••••••••••••••••••••••••••••••••	4 Network	WB/UPN/PAXI	PBS	Cable
	Affibates '	Independents		Programming
Noncable Households	64.9%	28.4%	6.7%	
Cable Households	33.0%	7.4%	2.1%	57.4%

1: NBC, ABC, CBS, FOX 2: ad-supported, pay cable, and other cable Source: Cabletelevision Advertising Bureau (2002)

Assuming that additional program options do not necessarily translate into more time spent viewing, the viewing shares for cable channels have steadily increased over recent years at the expense of broadcast stations (Baldwin, McVoy, and Steinfield, 1996; Webster and Phalen, 1997). That is, additional program options are more likely to prompt a reconfiguration of how audiences allocate their time. Webster and Phalen (1997, p.109) point out, "across the entire audience, ... as more people subscribe to new media systems, and as the systems to which people already subscribe expand their services, fragmentation is likely to increase."

Indeed, as cable penetration of American households increased from 21.9 % in 1980 to 69.2 % in 2001, the total prime time audience share by the big three broadcast networks (NBC, CBS, and ABC) declined from 85 percent to 38 percent (see Figure 1). In 2002, ad-support basic cable networks eventually grabbed the dominant audience share over the seven broadcast networks (the big three networks above plus FOX, WB, UPN, and PAX) for the first time, 48 percent of prime time share compared to 45 percent for the broadcast networks (Romano, 2002). The more choices available, the less likely it is that viewers will be exposed to the same selection of content (Webster and Phalen, 1997, p.105).



Why have American viewers reduced the amount of time for watching over-the-air broadcast networks and, instead, moved to cable networks? In general, commercial mass media are interested in attracting as many viewers as possible. Webster and Phalen (1997, p.101) assume, "Given this overriding concern with maximizing audiences, ... They (the media) resort to formulas and themes that can easily be accepted by the broadest possible audience." From a strategic viewpoint, it made economic sense for each of the big three broadcast networks to aim for the mass audience with similar tastes by creating the "lowest-common-denominator" programs that would attract a one-third share of the majority (Baldwin and McVoy, 1988).⁵ The rationale behind this is explained best by Owen, Beebe, and Manning (1974):

(This) duplication occurs because there is a tendency for a decentralized system of broadcasting, with limited channel capacity, to produce rivalry for large blocks of the audience with programs that are, if not identical, at least close substitutes. There is a tendency, in our case, for the three networks to produce the same kind of programming. (p.101)

Among three U.S. networks (NBC, CBS, and ABC), the general trend was toward more and more homogenization of content, as the schedule of one network increasingly resembled the schedules of the other networks, and the diversity of programming among the networks declined over the 30 years period, with the exception of an increase in the late 1970s due to the outbreak of rivalry (Dominick and Pearce, 1976; Litman, 1979; Wakshlag and Adams, 1985). Because of a propensity for programming aimed toward great middle ground of majority tastes, people who were not interested in the mass appeal programming were under-served (Baldwin and McVoy, 1988; Litman, 1992).

Whereas the limited number of channels predetermined the strategy of audience maximization in the case of the major broadcast networks, as discussed above, this is not a necessary result if the number of channels is unconstrained (Owen and Wildman,

⁵ The "Common denominator" program means any program that will be watched by a number of different viewers groups. In the viewer preferences, the common-denominator program is never assumed to be the first choice of all viewer groups. In general, it will be a less-preferred choice. This use of the common-denominator-program concept is consistent with the (plausible) assumption that viewers would prefer to have programs somehow tailor made to their own tastes, but if this is impossible, will make do with some other program. See Owen et al. (1974, p.54, footnote E).

1992; Waterman 1992). Although the availability of increased channel capacity does not necessarily guarantee diverse programming, relatively heterogeneous content has begun to appear in young, new media (Webster and Phalen, 1997). According to Noll, Peck, and McGowan (1973, p.32), "The available evidence from both STV (pay television, via broadcasting) and cable experience suggests the existence of a considerable unfulfilled demand for television programming, both of the conventional type and a few categories not well represented in the present program logs." In this manner, cable television with the unlimited channels responded to people who did not conform to the interests of the mass audience in the U.S.

Property of Multichannel Media—Program-type Diversity

While cable television is clearly different in structure from over-the-air broadcasting, its formation and philosophical raison d'etre are providing additional choices beyond the broadcasting realm (Litman, 1992). Certainly, one of the positive sides of cablecasting is the program diversity that it can attain with a number of channels. According to Heeter and Greenberg (1988, p.35), "Because of the greater variety and fixed structure of available content with cable, program choice should better reflect viewers' content preferences, particularly among those viewers who take advantage of cable diversity and among those who have content preferences for which specialized channel exists."

Viewers have relatively consistent preferences for a program type (Webster and Wakshlag, 1983). The existence of such preference patterns would underscore policymakers' desire for a diversity of program types, given that such diversity would increase the likelihood of maximizing the satisfaction of a wider range of viewers

(Napoli, 2001). Multichannel media, with a greater variety of available content, is well qualified to meet this desire. With respect to the correlation between audience preferences and program-type diversity, Litman (1992, p.149) notes, "The more varied or unconcentrated is the audience preference structure, the greater the opportunities for receiving diverse programming, especially under a direct consumer payment or hybrid system." Accordingly, it is reasonable to assume that viewers' preferences are more likely to be met if they can access the media providing a variety of programming. Napoli (2001, p.139) asserts, "Greater diversity of choices likely promotes greater consumer satisfaction."

From what has been discussed above, given various preferences among viewers, it is presumed that the more program-type diversity is attained, the more viewers' preferences are met, and hence the more viewers are satisfied. Presumably, one of key factors for cable television to have penetrated into American homes rapidly is that the cablecasting with diverse programming enthralled a number of audiences who were weary of the duplication of content by broadcast networks and aspired to obtain programs that more closely conform to their preferences. The promise of cable television for viewers has been the ability to watch programs more specifically geared to viewers' preferences or interests.

Japanese Attitude toward Multichannel Media and Program-type Diversity

Figure 2 shows the attitude of Japanese non-cable subscribers toward cable subscription. While respondents who are positive to cable viewing account for one third of all, a quarter of them are negative to the viewing. A clear-cut trend toward cable viewing among Japanese is not identified from Figure 2.



We will then examine what Japanese actually watch under the environment where additional channels are available with cable services. Table 3 and 4 show the television viewing by individuals with a multichannel cable system that offers 6 over-the-air networks, 3 satellite broadcasters, and 22 cable networks. Respondents are 506 individuals of cable households chosen at random in a city of Japan.

We can see from Table 3 that Japan's cable subscribers watch over-the-air broadcast networks much more than non-over-the-air networks, such as cable networks. Recall our earlier discussion of U.S. cable households allocating their viewing time to cable networks more than to broadcast networks (see Table 2). Since the total viewing time in Table 3, 3 hours 20 minutes, roughly conforms to the average time that Japanese spend each day watching television, 3 hours 34 minutes (NHK, 2001b), it might be true that audiences with the cable system reduce the viewing of over-the-air networks and, instead, to watch cable networks. Yet, the proportion allocated for cable networks is quite small. Presumably, cable networks have yet to pose a great threat to broadcast networks in Japan.

Table 3: Television Viewing per Day by Individuals with Cable (Averaged over A Week)

Over-the-air Networks	Non-over-the-air Networks
2h39min	41min

Source: the Institute of National Association of Commercial Broadcasters (2000)

Table 4 illustrates the correlation between the length of subscription to the cable system and changes in television viewing over time, such as the number of programs and program types that subscribers watch, or the agreeability to program-type preferences. Subscription length greatly differs in respondents, ranging from a few months to maximum seven years. There is no significant correlation at .01 level between the length of subscription and substantial increases in variables above. Judging from no positive and statistically significant correlation, Hamaoka (2000) assumes that Japan's cable subscribers do not necessarily feel the benefit associated with multicasting, such as the increase in program-type diversity or the availability of programs conforming to their specific preferences, even if they subscribe to cable television for certain length of time.

Table 4: Length of Cable Subscription and Changes in Television Viewing

Variable	Correlation Coefficient (r)
Increase in the number of programs	.010
Increase in program types	.015
More agreeable to my taste	.059
More variety available	.038

-1≦r≦1

Source: the Institute of National Association of Commercial Broadcasters (2000)

The critical question then is whether or not Japanese, many of whom chiefly watch broadcast networks even under the multichannel circumstance, demand diversity in television programming, which is supposed to increase in proportion to the number of channels. Cooper-Chen (1997) concludes that "narrowcast" diversity given by the U.S. choice in a number of cable channels and topics, from local access to country music to the BET, is unknown to Japanese who prefer "broadcast" programs of general appeal.

Some scholars certainly attribute the reason why most Japanese do not necessarily demand diverse presentations in television programming to the nature of preferences and habits that Japanese have. According to Hashimoto (1999), Japanese often tend to watch popular programs only in order to share common subjects with friends or colleagues even if the programs are not truly attractive to them. To put it another way, Japanese sometimes watch television for their social relationships, not to be entertained or find information. In this case, only particular programs are likely to be the subject of their viewing, and, consequently, other programs might be not necessary. According to Sawa (1994, 18), "Most people tend to watch the same programs with high viewing ratings...It's a case of me-tooism." This attitude is in contrast sharply with that of Americans who want to be able to choose by themselves what they will watch (Stronach, 1992).

Hashimoto (1999) also points out the authoritarianism peculiar to Japanese, taking the form of channel loyalty when they watch television. The conceptualization of channel loyalty is a tendency to prefer watching programs on one channel over programs on another (Wakshlag, Agostino, Terry, Driscoll, and Ramsey, 1983). For example, Japanese generally have strong sense of trust toward programs, especially the news programs, offered by NHK (Okamura, 1993). Hashimoto (1999) assumes that

Japanese are likely to watch only the few networks supported with this authority, even in the multichannel environment.

Webster and Phalen (1997, p.103) note, "Perhaps the most significant is programming that caters to ethnic and racial minorities." The U.S. is a multiethnic nation, where people who have various ethnic backgrounds live together. While assimilated into American lifestyles, many immigrants maintain their own ethnic identities and culture. Given that media content is more or less influenced by culture, the U.S. media should ideally reflect a multicultural society. Nonetheless, the over-the-air broadcasters did not necessarily maintain the diversity of programming in reality, as noted earlier. Accordingly, it is reasonable to assume that there was demand for multichannel media in the U.S. in order to make diverse presentations based on each culture. The Black Entertainment Network (BET) and Hispanic channels, such as Gala Vision or Univision, are good examples that illustrate networks embodying each culture. By contrast, Japan is basically regarded as a racially homogeneous nation, although there are some minority groups. However, the largest group, residents from Korea, is approximately 640,000, no more than 0.5 percent of Japan's entire population (Statistics Bureau and Statistics Center, 2001b). Compared to Americans, therefore, Japanese might have less motivation to have a number of channels to receive diverse cultural messages.

Assuming that Japanese in general do not demand a variety of television programming as discussed above, it is possible that most Japanese television programs resemble each other. That is to say, even if a number of channels are available by cable services, diverse programs might not be offered. In respect of the program-type diversity in Japanese television, Straubhaar's observation (1988, p.321) deserves our

careful attention. He points out, "With one noncommercial/educational and five commercial/entertainment television networks in Japan, there is considerable diversity in conventional broadcasting, and, therefore, cable may not also be perceived as adding significant diversity in video distribution." The remark was made in 1988 when a prototype of multichannel cable systems was just launched in Japan. This observation, nonetheless, might still hold true under more advanced multichannel services today. Kahaner (1996) asserts that Japanese viewers are not encouraged to subscribe to cable television because of the widespread perception that the existing over-the-air networks already provide adequate programming on various topics. Indeed, by research on the international comparison of diversity in television programming, Ishikawa, Leggatt, Litman, Raboy, Rosemgren, and Kambara (1994) discover that the overall diversity of Japanese broadcasting in prime time is higher than that of the other countries included in the study, namely, the U.S., Britain, Canada, and Sweden.

Importantly, Japan's broadcasters are required by Article 3-2 of the Broadcast Law to maintain a harmonious balance among the broadcast program-types by providing general cultural educational programs as well as news and entertainment programs. In order to ensure such a balance, a notification of the scheduling of television programming was issued by the MPT in 1961 and it remains the basis of present-day programming (Tokinoya, 1996). Both NHK and commercial broadcasters are obliged to assign a minimum of 20 percent of their programming schedules to cultural programs and no less than 10 percent to educational programs, although there are no special stipulations regarding the minimum ratios for news and entertainment programs. According to Tokinoya, (1996), each television station is required to submit a report detailing the proportion of these program types in its schedule. This obligation

might play an important role in ensuring diverse programming.

Some authors assert that Japanese over-the-air broadcasters sufficiently meet the audience needs, and the fullness of this programming prevents multichannel cable television from prevailing (Nishi, 1997; Shimbo, 2000). Stewart (1995) points out that the limited variety in cable programming is the main reason of Japanese public's poor response to cable television. If broadcast networks air a wide variety of programming, additional channels by cable subscription might not lead to the increase in the number of program types available. However, it is unclear whether or not Japan's over-the-air broadcasting, consisting of only six networks, can achieve such a considerable degree of program-type diversity as to meet most viewers' preferences.

The degree to which Japanese are satisfied with program-type diversity of over-the-air broadcasting might be reflected in their choice of satellite television. As a new type of video distribution system, satellite broadcasting has been slightly more accepted in Japan than multichannel cable television. As of 2002, the number of subscribers to multichannel cable and satellite broadcasting were approximately 13 million and 14.8 million, respectively (Ministry of Public Management, Home Affairs, Posts and Telecommunications, 2002). However, it should be noted that in Japan, "satellite television" refers to two different systems: broadcasting via broadcasting satellite (BS) and broadcasting via communications satellite (CS). The only CS broadcaster, Sky PerfecTV, is substantially equal to its American satellite television. On the other hand, analog BS broadcasting, launched in 1989 by the strong promotion of NHK, currently has only three channels, and hence it is inadequate to regard it as

multichannel media (Nozaki, 1998).⁶ In Japan, nevertheless, BS broadcasting is much more popular than CS broadcasting at the moment. A list of those new video distribution systems is shown in Table 5.

		# of Subscribers	# of Channels	Monthly Basic Fee
Multichannel Cable Television		13.0 Million ¹	<60	3,980 yen*
Satellite Broadcasting (BS)	NHK	11.4 Million ²	2	2,340 yen
	wowow	2.6 Million ^a	1	3,380 yen
Multichannel Satellite Broadcasting (CS)		3.4 Million ⁴	<177	3.980 ven

Table 5: New Video Distribution Systems in Japan

1: As of Mar. 2002; 2: As of Oct. 2002; 3: As of Dec. 2002; 4: As of Jan. 2003

*: Charge for J-COM Broadband (a MSO)

Sources: WOWOW (2003); Sky PerfecTV (2003);

Ministry of Public Management, Home Affairs, Posts and Telecommunications (2002)

It is quite probable that most people are facing the alternative of BS or CS broadcasting when they think about subscribing to satellite television because most cannot possibly afford to pay double subscription fees. It is noteworthy that, as the number of subscribers indicates, most Japanese have preferred to watch special programming by NHK on BS broadcasting rather than multiprogramming by CS broadcasting. Whether or not this propensity will be kept after the digitization of BS broadcasting deserves further observation.⁷ At this moment, however, it appears that Japanese prefer adding a small number of channels offered by BS to conventional broadcasting rather than a large number of channels offered by CS.

⁶ NHK has two channels, BS1 for world news and sports and BS2 for entertainment and culture. Japan Satellite Broadcasting, a commercial broadcaster, has one channel named WOWOW (BS5), a premium channel for movies and sports events. Those channels are also available on multichannel cable systems. While NHK BS channels are generally included in basic channels, WOWOW is offered as a premium channel. Technically, however, NHK has one more satellite channel used for pilot broadcasting in high-definition television format.

⁷ The digitization of BS broadcasting in the end of 2000 encouraged the new entry of commercial over-the-air networks into the market. Yet, almost all broadcasters adopted one high-definition television (HDTV) channel, instead of three standard-definition television (SDTV) channels. As a result, the number of channels presented by digital BS broadcasting merely increased up to 16.

One view might be, "Now that Japanese preferences are sufficiently met by over-the-air broadcasting, they no longer need the proliferation of the large number of channels." If conventional over-the-air broadcasting attains a sufficient degree of program diversity that meets Japanese viewers' needs, they might not feel the necessity to subscribe to multichannel video services.

Causes Hampering the Subscription to Multichannel Media

It is possible that program diversity is not the only factor for many viewers to determine the subscription to cable television. It might be useful to considering some other independent variables possibly affecting media choices.

It has been proposed that the resistance toward subscription fees, which people potentially feel, has resulted in the low penetration rate of cable television in Japan (Matsudaira, Nakamori, Sudo, and Hattori, 1992; Ishimaru, 1994; Nishi, 1997). Viewers can watch commercial terrestrial broadcasting for free. It is, therefore, likely that viewers who are accustomed to free television feel uncomfortable paying subscription fees for television reception. Shimbo (2000) assumes that because each television household in Japan is in principle obliged to pay the receiving fee to NHK, it is quite possible that most people no longer want to pay additional cash for television reception.⁸ Ishimaru (1994) tests this theory with data. According to him, while the subtotal revenue for pay-television and public broadcasting accounts for 35 percent of the total revenue in the U.S. broadcasting industry and 24 percent in Japan, the proportion of the revenue for pay-television is very different between the U.S. and Japan, with 32.4 percent and 1.8 percent, respectively. Accordingly, he points out, "The

⁸ The receiving fee is 1,395 yen, about \$11.62, per month as of 2002.
expenditure, which is perhaps allocated for pay-television, might be spent for the receiving fees for NHK in Japan's reality." It is reasonable that many households cannot afford to pay an additional charge for television viewing and, as a result, shelve their plans for cable subscription.

A number of studies of media consumption claim that expenditures for media remain a constant proportion (Baldwin et al., 1996). That is, households generally spend on the media usage at a constant rate regardless of their income. The monthly average net income per household in 2000 was \$3499.17 in the U.S. (U.S. Census Bureau, 2001a). Because the monthly average subscription fee for the basic service in the U.S. was \$30.08 in the year (U.S. Census Bureau, 2001b), American households allocated 0.86 percent of their income for basic cableviewing. On the other hand, given Japanese cable households, they allocate 1.06 percent of their net income for both the receiving fee paid for NHK and cable subscription.⁹ Although the share of expenditures for media usage is larger in Japan, it is not clear if the difference between the share in American homes and that in Japanese homes, 0.2 percentage points, is so significant as to deter Japanese from subscribing. It is often pointed out that many Japanese still perceive cable television service as expensive and unappealing (Kahaner, 1996; Nishi, 1997; Shimbo, 2000). As far as subscription fees are concerned, it might be possible that many Japanese are not willing to subscribe to cable services because the services are not appealing in comparison to the cost, not because of a mere budget constraint in a household finance.

⁹ The monthly average net income per Japanese household in 2000 was 508,984 yen, \$4241.53 (Statistics Bureau and Statistics Center, 2001a). As data for the average monthly subscription fee in Japan are not available, the fee for J-COM Broadband in 2001, 3,980 yen, \$33.17, is employed here. Accordingly, Japan's cable households have to pay \$44.79 for television viewing (\$11.62 for NHK and \$33.17 for cable viewing). All figures are converted at 120 yen to one U.S. dollar.

Next to a budget constraint, a time constraint should be taken into account. Television viewing entails the expenditure of time. Especially for individuals who esteem value of time, the time allocated for television viewing, an opportunity cost, is significant (Kurokawa, 2000). The time allocated for television viewing will not double even if cable subscription increases the number of channel options twofold. According to Nagaya (1998), there is no difference in viewing time for Japanese to watch television between before and after cable subscription. It is assumed that viewers choose television programming so as to maximize utility within a limited amount of time (Yuguchi and Yamauchi, 2000). If Americans have already allocated about as many hours as possible to television viewing, it is probable that audience attention to cable television comes at the expense of broadcast television (Webster and Phalen, 1997). In contrast, as we saw in Table 3, even cable subscribers mainly watch programming by broadcast networks in Japan. For many Japanese viewers, watching over-the-air programming in a time constraint might be maximizing utility of television viewing, possibly because broadcasting is more appealing to them than cablecasting.

As discussed above, whether viewers spend budgets and time for broadcast or cable television might be greatly influenced by the audience appeal of a program. In general, viewers are attracted to television programs that are produced with larger production budgets (Owen and Wildman, 1992). It is true that broadcast networks have ample production costs. For instance, NTV, one of Japan's broadcast networks, has production budgets ranging from 30 million to 50 million yen, from about 250,000 to 417,000 dollars per program broadcast during prime time. In the case of dramas, the budget further increases up to 60 million yen, around 500,000 dollars (NTV, 2002). On the other hand, it is said that the production cost for a program on cable networks is an

average of approximately 500,000 yen, around 4,200 dollars (Nishioka, 2000).

The gap in production budgets is caused by the difference in market size. Recall that while over-the-air broadcasting is received by almost all households in Japan, only 26.8 percent of them can access cablecasting. Even for top-ranked cable networks by subscriber counts, the number of subscribers is around 5 million, approximately one-tenth of the potential audience reach by broadcast networks. According to Owen and Wildman (1992):

Programs with wide geographic distribution can generally be expected to attract the largest shares of audience because substantial cost savings can be realized by spreading the fixed costs of production over as large an audience as possible, and there is an incentive to produce more expensive programs when it is possible to reach a large audience (p.52).

The gap in production budgets is visible in the quality of programs. As Owen and Wildman (1992) assume, a producer can enhance the expected appeal of a production by spending more money on the creative inputs of production, such as popular actors or actresses, better writers, or special effects experts, all of whom affect the appeal of the final product.

Indeed, circumstances similar to this happen to producers in Japan's broadcast networks. As a result, it seems quite probable that high quality of programs offered by over-the-air networks, sustained with higher production budgets, urges mass audience to continue watching only over-the-air broadcasting. On the other hand, cable networks are forced to produce or acquire programming with smaller production budgets.

Low-budget programs usually are not appealing to people, and hence people might take a negative attitude toward the subscription to the media. There seems to be a vicious spiral of low penetration rates and low production budgets.

The Focal Point

We will now return to the discussion of program-type diversity. Given broadcasters providing mass appeal programming with ample production budgets, they simultaneously fail to offer programming for minority tastes (Owen et al., 1974). As discussed earlier, this actually occurred in U.S. commercial broadcast networks that preferred programs producing large audiences over those catering to minority-interest tastes. If mass audiences are worth more per viewer than minority audiences in the advertising market, then this will cause less diversity and more duplication of programs (Owen et al., 1974; Owen and Wildman, 1992). Yet, the programming strategies of commercial channels might change as the number of channels increase. Minority tastes will be served if the number of channels is large enough to exhaust the profits in duplication, making programs for minority-taste audiences as profitable as majority-taste programs at the margin (Owen and Wildman, 1992).

According to the theory, there seems no incentive for Japan's broadcast networks, which hold a dominant share in the video distribution industry, to offer diverse programming, instead of mass appeal programming. Certainly, it would be incompatible with the assumption cited previously that there is a possibility of considerable program diversity in Japan's over-the-air broadcasting. In order to shed light on this issue, we need to observe the program-type diversity by Japan's broadcast networks.

On the cable networks' side, they might be able to meet the needs of viewers,

who seek programs that more closely conform to their preferences, by offering narrowly targeted programming, even with their production budgets much smaller than those of broadcast networks. Yet, given broadcast networks attaining a considerable degree of program-type diversity, the audiences left for cable networks to target might be very limited. In this manner, the programming by broadcast networks has an effect on programming by cable networks. If diverse programming is offered by broadcast networks, cable networks presumably have only two options: to develop further niche programming in order to attract audience groups whose needs have yet to be fulfilled by broadcasting, or to duplicate broadcast programming with much smaller production budgets. Now that several multichannel video services are now available in Japan, what types of programming is offered by the media deserves our careful attention.

CHAPTER 1: Definition of Program-type Diversity

According to Levin (1971; as cited in Napoli, 2001, p.125), diversity has became a fundamental principle underlying evaluations of the performance of mass media systems and the objectives of communication policymaking, so much so that, today, an important measure of the quality of any media system or market is the diversity of offerings available to the audience. Diversity has been described as one of the paramount goals of broadcast regulation in the U.S. (Owen, 1978, p.43). The impact of the goal of diversity is expressed best by the following quotation:

Diversity has come to acquire the status of an end in itself...a broad principle to which appeal can be made on behalf of both neglected minorities and of consumer choice, or against monopoly and other restrictions. (McQuail, 1992, p.142)

Both social concerns, such as increasing minority presentation, and economic concerns, such as eliminating monopolies can motivate diversity policies (Napoli, 2001).

Commenting on the situation in the U.S., Napoli (2001) identifies three components of diversity: source diversity, content diversity, and exposure diversity. Source diversity is divided into two subcomponents: ownership diversity and workforce diversity. The former denotes the diversity of ownership of media outlets or of content/programming, and the latter denotes the diversity of the workforce within individual media outlets. The Federal Communication Committee (2000) argues that promoting workforce diversity promotes ownership diversity, which in turn promotes a

greater diversity of content.

Content diversity includes program-type diversity, demographic diversity, and idea diversity. Program-type diversity, the main theme of this thesis, will be examined later in this chapter. The issue of demographic diversity is related to whether minority and other demographic groups are portrayed on television in reasonable proportion to their prevalence in society. Idea diversity refers to the diversity of viewpoints and of social, political, and cultural perspectives represented within the media. According to DeJong and Bates (1991, p.160), "The essence of the concern over media diversity is based on the Jeffersonian concept that truth will emerge from the interaction and clash of diverse opinions and information in the marketplace of ideas." Increasing the diversity of ideas was the central motivation behind the imposition and enforcement of the Fairness Doctrine, as broadcasters were forced to provide a reasonable opportunity for the presentation of all positions on matters of public importance (Lentz, 1996).

Exposure diversity is the diversity of content as received. Analysis of exposure diversity would seek to answer questions, such as how many different sources are audiences exposed to in their media consumption, or whether they are consuming diverse types and formats of programming. Yet, such questions regarding the diversity of content "as received" have gotten much less attention from policymakers, policy analysts, and academics than questions related to the diversity of content "as sent" (McQuail, 1992, p.158-159).

We will then examine how to define program-type diversity. Program type denotes a category of programming usually based on similarities in program content (Webster, Phalen, and Lichty, 2000). Webster and Phalen (1997) note:

To stipulate a viewer-defined typology forces us to consider exactly what categories of content are systematically related to audience likes and dislikes. In theory, such a typology must mean that people like one type of program will like all other programs of that type. (p.32)

Increased program-type diversity implies a closer matching of video products with consumer tastes, which usually improves consumer welfare (Wildman and Owen, 1985). As greater diversity of choices likely promotes greater consumer satisfaction, for the marketplace of ideas to be effectively realized, there must be a substantial diversity of products available, which translates into a substantial diversity of program options, (Napoli, 2001). At the same time, as Turner (2001) notes, the program type, "genre" in his phrase, operates as an important means of communication information about the television text to prospective audiences. For audiences, program types play a major role in how television texts are classified, selected, and understood.

Research on program-type diversity in entertainment content has usually been focused on the number of different program types or the degree of choice, available to viewers within or across different program sources (Dominick and Pearce, 1976; Litman, 1992; Grant, 1994). Levin (1971) and Litman (1979) identify two types of program diversity: "vertical" diversity and "horizontal" diversity. Vertical diversity is the degree of program-type diversity offered by a single network/broadcaster or a group of them (e.g. broadcast networks or cable networks) over its entire schedule, judging whether the network/broadcaster or the group presents a balanced schedule of programs.

Increase in vertical diversity, however, does not fully translate into increased viewer options available at any point in time (Litman, 1979). We will assume that a new

type of programming is provided by all broadcasters at the same time slot. Whereas program-type diversity within a broadcaster, vertical diversity, certainly increases by adding the new type of programming, viewers have no options but the new type of programming at that point in time. In order to correct this problem, horizontal diversity should also be gauged. Horizontal diversity is the number of types available across all networks/broadcasters in the market at any given time (Litman, 1992; Grant, 1994). In other words, the vertical aspect of diversity can facilitate judgments of either individual or groups of networks/broadcasters while the horizontal dimension will facilitate assessment of how the groups or all networks/broadcasters simultaneously perform. Thus, the diversity index should reflect horizontal quality as well as vertical quality since both conditions contribute positive utility to viewers (Litman, 1992).¹⁰

¹⁰ Litman (1992) defines vertical diversity and horizontal diversity as depth and breadth. Presumably, consumers are interested in the characteristics, namely physical properties contained in goods, such as size, shape, odor, and so on, rather than the goods themselves and possess preferences for collections of characteristics. Hence, depth and breath may be considered equivalently as characteristics or product attributes rather than products themselves. For instance, for some viewers, additional breath might be more important than additional depth. See Litman (1992, p.136-137, 154 footnote 2).

CHAPTER 2: Literature Review

In spite of a number of television studies conducted in Japan, there have been few studies that focus on program-type diversity with some exceptions (e.g., Ishikawa and Muramatsu, 1992; Nishino, 1994). Presumably, this is because multichannel media have not been well developed, and possibly because the concept of diversity has not taken the center of attention among Japanese media policy makers and scholars.

In the U.S., to the contrary, academic research on the subject appears to be conducted on an active basis. Most important studies on television program diversity have been conducted from an economic viewpoint. In Litman's phrase (1992), diversity, which obeys the laws of supply and demand, is more like an economic product than a policy or performance goal. This assertion is very persuasive when we consider the notion that commercial television is in principle a business. Owen et al. (1974, p.4) assert, "Television stations are in the business of producing audiences. These audiences, or means of access to them, are sold to advertisers." As Owen et al. note, what is important here is that advertisers are interested not merely in the size of an audience, but in its characteristics, such as age, sex, income, and other compositions of the audience. Given that viewers are not homogeneous, it is reasonable to offer different types of programs as programming strategies.

In a model of program supply, Steiner (1952) concludes that monopoly yields greater program diversity, whereas competitors engage in program duplication, and hence diversity is undermined since they simultaneously offer programs that have the largest number of viewers. Noll, Peck, and McGowan (1973) discover that new station entry does not automatically guarantee greater diversity because of the tendency of

commercial broadcasters to maximize audience size by duplicating popular types of programs rather than experimenting with different program categories. These findings raise questions about any assumption of a positive relationship between an increase in the number of outlets and program diversity. It is possible that new outlets may choose to distribute programs that duplicate already available program types. We can recognize from these theories that duplication of programs could be an obstacle that hinders more diverse programming.

Nonetheless, as Owen et al. demonstrate (1974), we should note that strict assumptions are required in order to produce Steiner's conclusion in respect to program diversity. These assumptions are as followings: (1) viewer groups are highly unequal in size; (2) viewers watch only their first choices; (3) channel capacity is limited; (4) competitors duplicating a program share audience equally; (5) all viewers are of equal value to broadcasters; and (6) program costs are ignored. Modifying these unlikely assumptions more realistically, Owen et al. discover several critical points that were missing in Steiner's model. If viewers watch their second or third choices, and viewer groups are not highly skewed in size, then competition is likely to provide more first choices. Furthermore, under unlimited channels, minority programs, if preferred by viewers and if economically viable, appear in addition to the duplicated programs.

As Owen et al. (1974) and Owen and Wildman (1992) point out, if mass audiences are worth more per viewer than are minority audiences in the advertising market, then this will cause less diversity and more duplication of programs. It seems reasonable, however, that as the number of channels increases, advertisers who seek out minority groups will find television increasingly attractive as an advertising vehicle. Owen and Wild man (1992, p.92) note two important points: additional channels are a

necessary condition for specialized programs to appear, and program patterns must still reflect advertisers' values of exposure to viewers in addition to viewers' value of the programs.

At the same time, Owen and Wildman (1992) predict that, assuming that program quality is measured in terms of viewer appeal, there is a trade-off between program diversity, which increases with the number of competitors, and program quality, which decreases as production budgets decrease in a competitive market. That is, with the increase of channels, revenue per channel is likely to decline, partly because audience per channel declines and the size of program investments that can be supported by any given channel must fall as well, and partly because viewers have closer substitutes available. Accordingly, given that larger production budgets generally result in programming that audience find more attractive, the variability of quality raises the possibility that viewer welfare may decline as diversity increases.

Other scholars conducted longitudinal research, which measures television program-type diversity trends, or comparative research of program-type diversity across sources, including broadcasting networks, superstations, and basic and premium cable networks. In order to assess the diversity, some use measures or indices of program diversity based on industrial organization measures of market concentration (Litman, 1992).

C ontrary to Noll et al.'s finding noted previously, Levin (1980) concludes from his research of horizontal diversity that an increase in the number of stations serving a community leads to greater horizontal program diversity, the number of program types available across all stations at any given time, and thereby stimulates higher total television viewership within the local market. In addition, Grant (1994) finds that as the

number of channels within each channel type (broadcast network, basic cable, superstation, and pay cable) increase, the horizontal program diversity within that channel type increases. As an example, he takes Fox Network that should be a catalyst for increased diversity in program types offered by the other three broadcast networks. On the contrary to the horizontal program diversity, however, he also discovers that the average vertical diversity of all channels within a given channel type is negatively related to the number of channels within that channel type.

Dominick and Pearce (1976) classify broadcasting networks' prime time entertainment programs that started during the fall season of each year from 1953 to 1974 into fourteen categories. With the diversity index, they find that fewer and fewer choices were available to the audiences and the network attention was being focused on fewer and fewer topics. For instance, in 1974, three categories (action/adventure, movies, and general drama) accounted for 81 percent of prime time, sending the diversity index to its lowest value ever. They also find out the strong correlation between profits and homogeneity, suggesting that the more money industry made, the more the prime time schedules on the networks began to resemble one another.

Measuring the vertical diversity offered by each of the three major broadcasting networks during the late 1970s, Litman (1979) discovers that there was a greater degree of balance and a gradual increase in the diversity. Triggered by the success of ABC's aggressive and innovative programming in the 1975-76 season, a period of rival behavior suddenly emerged, in which the networks broke out of their pattern of imitation and became more willing to take chances on new types of programming and to counter-program against their rivals. Litman (1979, p.405) notes, "This should mean that the overall quality of the network schedule is improved and more viewers should be

enticed into watching a more diverse menu of programs."

The Wakshlag and Adams study (1985) confirms the overall decline in program diversity offered by networks over the thirty year period, except for an increase in the late 1970s discovered by Litman, as noted above. Wakshlag and Adams find that there was a sharp and enduring decline in diversity associated with introduction of the Prime Time Access Rule (PTAR), which was intended to increase diversity.

DeJong and Bates (1991) extend the research on broadcast diversity to the cable television industry. What they discover is channel capacity nearly doubled from 1976 to 1986, and both absolute and relative diversity significantly increased as well.¹¹ However, the rate of increase of relative diversity did not keep up with the growth of the number of channels, indicating the prevalence of some duplication in filling new channels.

Ahn and Litman (1997) compare the consumer welfare of integrated multiple system operators (MSOs) with that of nonintegrated MSOs in service price and program diversity. In the research, they find out that nonintegrated MSOs provided less diversity, compared to the integrated groups. Among the integrated MSOs, however, the more integrated the system, the less the diversity. This is because the natural propensity or economic imperative to favor their affiliates in carriage decisions leads to the reduction of the absolute and average diversity.

So far, we have seen that diverse programming is premised on the proliferation of channels and the demand for specialized programs from viewers and advertisers. At the same time, it is probable that program-type diversity does not increase as much as

¹¹ Absolute diversity is the number of different cable channel types carried by a local system divided by the total number of channel types for the industry as a whole. Relative diversity is the number of different cable types divided by channel capacity on the system.

the increase of the number of channels, because the duplication of programming might occur at a given fixed point. Figure 3 illustrates a possible relation between the number of different program types and the number of channels. As Owen and Wildman (1992) point out, adequate channel capacity is a necessary but not a sufficient condition for programs for a minority-taste audience to be available under profit-maximizing ownership and advertiser support. Besides, program diversity is also determined by other factors, such as policies (e.g. the PTAR). Those factors will be examined further in the next chapter.



CHAPTER 3: Factors Affecting Program-type Diversity

It is likely that the diversity of programming results from the confluence of various factors. It is, therefore, necessary to consider the causal factors related to program diversity, although systematic studies focusing on the causality have been far too few in number. It will be helpful to distinguish supply and demand side factors as Litman (1992, p.147), who conducted one of the few studies, claims, "Diversity obeys the law of supply and demand." Demand side factors, such as discretionary leisure time and income, or individual preference patterns, greatly affect program-type diversity available to the individual. Similarly, supply side factors, such as the level of technological development, the degree of regulatory and political control, and intensity of competition, possibly impact on the number of channels offered and the diversity within and across such channels (Litman, 1994). Here we will focus our attention only on the supply side factors since the demand side factors, such as viewers' preferences, budget and time constraints, or ethnicity and national character, have already been discussed in relation to the penetration of multichannel media in Chapter 1.

Ownership

Suppose that all broadcasting media are exclusively owned and operated by a single owner, the owner can be a gatekeeper who has discretion to manipulate content. As a result, there is the possibility that the content available is biased and the diversity of programs is low. This theory is the basic premise of the decentralization of media ownership and the rationale of the ownership regulation (Sugaya, 2000). Recall the assumption that increased source diversity containing ownership diversity will increase

content diversity.

Take a recent event for example. In spring of 2002, some Hispanic groups asked the Federal Communication Committee (FCC) to deny the various transfer applications regarding NBC's acquisition of the Telemundo Communication's television stations, a Hispanic television network. The groups suggested that NBC had failed to demonstrate how the Telemundo stations would continue to meet the needs of the Hispanic community when NBC takes over operations of the stations (FCC, 2002).

It is quite likely that the FCC's approval was influenced by the decision made by the U.S. Court of Appeals in Washington in February 2002, in which the court ordered the FCC to reconsider the 35 percent of television station ownership limitation (Labaton, 2002). The Telecommunication Act of 1996, amending the 1934 Act, eliminated the limit on the number of commercial broadcasting stations that a single company was allowed to own, and raised the national audience reach limitation from 25 percent of homes to 35 percent (Telecommunication Act of 1996, sec. 202 (c)). While the FCC has long insisted that the rule is needed to ensure the diversity of media voices for the public, the court held that the FCC had failed to adequately justify its retention of the 35 percent cap. It is said that the FCC will not scrap the cap entirely but will likely increase it dramatically (Higgins and McClellan, 2002). In the U.S., whether or not achievement of diversity in program content is compatible with the duopoly, which might result from the deregulation of television ownership cap, is a topic of debate.

In Japan, based on the principle of the decentralization of media ownership provided in the Broadcast Law, the investment by commercial over-the-air broadcast networks in other networks or stations is limited by less than 20 percent for those in different markets and 10 percent for those in the same markets. Besides, the investment in BS (broadcasting satellites) and CS (communications satellites) broadcasters is restricted to less than one third of the target firm's capital (Ministry of Posts and Telecommunications, 2001).¹² It is obvious that these rules intend to secure diverse information sources and diverse content, as well as to prevent a company from dominating in the market, and, as a result, to make the market competitive.

In reality, nonetheless, the way that broadcast licenses are awarded is controversial in Japan. According to Weinberg (1991):

Japan's system of bargain-oriented license allocation has been criticized for centralizing media power, promoting blandness in broadcast content, and encouraging an active political role in the licensing process...The Japanese approach rejects the basic philosophy of diversity and is designed to keep control of broadcast licenses within the circle of the socially and politically influential. (p.729)

When there are a number of applicants for a single license, the MPT (the authority of broadcast regulation) facilitates the creation of a joint venture representating all influential applicants rather than engaging in a competitive selection process (Weinberg, 1991; as cited in Cooper-Chen, 1997, p.180).

Competition

Whereas diversity and competition are related concepts, the diversity principle encompasses the "characteristics" of the marketplace participants, and the competition

¹² All broadcast networks were obliged to set up subsidiaries when entering the digital BS broadcasting

principle generally focuses only on the "number" of marketplace participants and their market shares (Napoli, 2001). Nevertheless, competition is likely to result in program diversity as Litman (1979) finds that competition is correlated with diversity of program types. The more the number of competitors, the more differentiated programming services are expected to become (Waterman, 1992).

When competition is limited and all major competitors are sharing equally in the success of business, they have little motivation to try the untested (Walker and Ferguson, 1998, p.23). As we discussed earlier, this had been the case for the U.S. broadcast industry by the late 1970s where three relatively competitors, CBS, NBC, and ABC, used the same formulas and strategies. The rationale for this is explained best by Litman (1979):

Full-fledged competition seldom takes place in oligopoly markets because every attempted price cut, new advertising campaign, or new product innovation invites a retaliatory response in kind from one's competitors...Through mutual agreement and cooperation on maintaining high prices, low input prices, or limited advertising expenditure, the industry's profits will be higher and each firm's share of those profits will also be greater than if it acts independently. (p.394)

Cable television grew in such oligopolistic video market, responding to people who had an unfilled demand for conventional broadcast programming. Cablecasters did make the U.S. video distribution industry more competitive, by increasing the number of

business.

marketplace participants and eroding the share of conventional broadcast networks.

In contrast, in Japan, six broadcast networks with general programming had already been launched by the early 1980s. In such a competitive broadcasting market that is unlike any other in the world, each network has long adopted the strategy of counterprogramming.¹³ Given that Japan's over-the-air broadcasters attain the considerable degree of program-type diversity, this could be a result of fierce competition among broadcasters. On the other hand, it is unclear if cablecasting significantly contributes to further competition in Japan's video distribution industry. Hasegawa (1998) observes more competition in the multichannel television market, caused by the deregulation of the cable and satellite television industries by the Ministry of Posts and Telecommunications. It is true that the number of players in the market increased by the proliferation of cable networks, but cablecasting has so far rarely affected the audience share by broadcast networks.

Policy and Technology

How does policy making influence the development of technology, such as cable television, and make more diverse programming available? As Owen et al. (1974) point out, the key point is that diversity is functionally related to technological factors affecting the number of channels.

Early in its history in the U.S., cable television captured the imagination of communication policy makers who saw more promise for the medium than the products of limited-channel commercial television. Cablecasting was expected to fulfill various

¹³ Counterprogramming means scheduling programs to pull viewers away from the competitors by offering something of completely different appeal than the other shows. This strategy relies on finding a large, ignored group of viewers and scheduling a program for them (Eastman, 1993).

promises that were not achieved in limited-channel commercial broadcasting, one of which is to ensure diversity (Baldwin and McVoy, 1988; Sugaya, 1997). As discussed earlier, the deregulation in the late 1970s and the success of the national satellite distribution system spurred cable television to become a true maltichannel medium (Baldwin and McVoy, 1988; Parsons and Frieden, 1998). Policy makers, acknowledging the uniquness that cable television had, introduced laissez-faire philosophy into the cable market. Based on this philosophy, many of the largest multiple system operators (MSOs) joined to become even larger, and new media entrants injected fresh capital into cable (Parsons and Frieden, 1998, p.59).

However, what kind of programming was desirable for the MSOs with a number of channels? There was a limit to the number of program networks that can succeed with mass appeal programming made for the aggregated audiences. Broadcast networks and most stations were programmed for mass market advertisers, for whom the large audience were efficient. However, as the number of channels of programming increased, the average size of the audience available for each channel became smaller and smaller, eventually allowing a programmer to maximize audience size with narrow appeal programming. In attempting to disaggregate the audience, the cable programming sometimes called "narrowcasting" and the networks called "niche channels" were created (Grant, 1994; Baldwin et al., 1996).¹⁴ As Owen and Wildman (1992) note, cable television with the unlimited channels enabled minority programs to appear.¹⁵

¹⁴ Eastman (1993) points out that niche service should be based on two intertwined elements: the content and the target. For instance, CNN has a broad audience with narrow content; Nickelodeon targets a narrow audience with a broad range of content; and MTV combines restrict content range and narrowly defined audience. For convenience, I identify those networks as "narrowly targeted networks" in this thesis.

¹⁵ It should be noted that MSOs today have unhealthy control over the creation and distribution of cable programming by virtue of the relationships, in which MSOs invested, often heavily, in neophyte programming service. Vertical integration between MSOs and cable networks generates unexpected result.

In contrast to U.S. cable television, its Japanese counterpart has not functioned well as the media that provides sufficient program-type diversity (Stewart, 1995; Yoshida, 2000).¹⁶ As we discussed earlier, cable television had long been regarded as no more than ancillary to over-the air broadcasting, and the unique characteristics had been omitted until recently. As a result of deregulation in 1993, however, cable operators are no longer restricted to a single, local area and can acquire content from a variety of pipelines (Sky PerfecTV, 2001). Hasegawa (1998) notes that Japan's current deregulatory climate and media market offer great opportunities for content providers because of a growing need of entertainment programs from cable and satellite television service providers.

Syndication Market

In the U.S. many of the cable networks or independent stations relied on the syndication market for programming (Baldwin et al., 1996). Waterman and Grant (1991) discover that aftermarket programming on cable television accounts for a major portion of cable television menu and a still higher proportion of cable viewing. The Financial Interest and Syndication (Fin-Syn) Rules, initially adopted in 1970, aimed to limit broadcast networks' control over television programming and thereby encouraged the development of a diversity of programs through diverse and antagonist sources of program services (FCC, 1993). Although the rules were repealed in 1995, they certainly revitalized the syndication market. Chan-Olmsted (1991, p.9) defines the syndication industry as "a primary alternative to broadcast network program distribution."

According to Ahn and Litman (1997), "Absolute and average diversity decrease as the number of affiliate networks increases."

¹⁶ As of 1997, Cooper-Chen asserted that narrowcasting did not exist in Japan and a few broadcast outlets

What is important is that most programs produced for broadcast television are not owned by the networks that air them but by the production companies that created them (Parsons and Frieden, 1998). Almost all of the popular entertainment programs have two runs on broadcast television and then, having made a reputation on a broadcast network, continue in circulation in additional exhibition on individual broadcast stations and cable systems (Baldwin et al., 1996, p.95). In addition to off-network network programming, syndication includes first-run syndicated materials. Eastman (1993) classifies syndicated programs into the following eight types: situation comedy, action-adventure, talk, magazine, reality, games, children's, and weeklies. It is probable that the established syndication market plays a role for cable networks to acquire diverse types of programs from a number of producers.¹⁷

While television programs are essentially the products physically reusable, the environment for rerun on other networks or multiuse of programs has yet to be created in Japan (Kudo, 1998; Nishioka, 2000). The absence of a mature aftermarket possibly has an extreme effect on programming in multichannel media. Japan's cable networks are facing serious shortage of programs (Okamura, 1993; Shimbo, 2000). For cable networks whose production costs are not ample compared to those of broadcasters, whether they can secure programs might be a matter of life and death.¹⁸ In Japan over-the-air broadcast networks produce over 90 percent of programming under their own rights, and broadcast rights for programs usually attributes to the networks. Those

could serve large audiences. ¹⁷ Waterman and Grant (1991, p.183) note that cable's aftermarket role is sharply dichotomized along the lines of fictional versus nonfictional program formats. According to them, to an overwhelming extent, aftermarket cable programming consists of fictional programs, such as dramatic and animated format programs. ¹⁸ The average production cost for cable programming, 500 thousand yen, is much less than that of a

broadcast programming, tens of million yen (Nishioka, 2000).

programs, especially entertainment programs, are all too often produced with the cooperation of program production companies. Yet, there are few examples where program production companies, which are positioned as subcontractors and have little bargaining ability to networks, can absorb the production cost and sell finished programs as packages to networks. In addition, the handling of rights necessary for reruns, for instance neighboring rights or publicity rights, is tied up in red tape (Sunagawa, 2000).¹⁹ For these reasons, the frequency that network programs are basically produced on the premise that they are aired only once in their first runs, and, indeed, while for movies, revenues by multiuse (e.g. via telecasting or video packages) account for 77 percent of all, the ratio for television programs is just 4 percent (Nishioka, 2000).

Unlike in the U.S., there had been few demands for syndication markets in Japan until recently when outlets proliferated.²⁰ With the rise of multichannel media, however, the necessity of syndication markets is often discussed in Japan (Nishi, 1997; Nishioka, 2000).

¹⁹ For a program to be rerun, the minimum requirements are the licenses from the owner of a copyright (broadcast networks), scriptwriters, all performers appearing on the program, and record companies associated with all music used in the program. Sunagawa (2000) assumes that cable networks with small production budgets, about 500 thousand yen or 4 thousand dollars per program, cannot afford even to handle those rights.

²⁰ There are only 13 independent stations. Network-affiliate local stations can be provided programs by networks as much as they want.

CHAPTER 4: Research Questions and Methodology

Based on what we have discussed so far, we propose three research questions related to program-type diversity.

RQ1: How many different program-type options are offered by Japan's broadcasting and cablecasting for each one-hour period?

With this question, we will examine horizontal diversity, that is, the number of different program types available at a given hour across all broadcast networks and then all networks/broadcasters included in a cable service. In addition, horizontal diversity in other optional combinations of media, such as over-the-air broadcasting plus satellite broadcasting, will be researched.

RQ2: What is the degree of diversity in programming by a network/broadcaster?

This research question is regarding vertical diversity. We will research program-type diversity within an individual network/broadcaster. In other words, how much the programming by an individual network/broadcaster concentrates into a particular type will be examined.

RQ3: Which one, broadcasting or cablecasting, offers more diverse programming? As overall diversity, vertical diversity in broadcasting and cablecasting will be examined in order to make sure which offers more diverse programming. We will discuss the degree of diversity in aggregate programming by broadcasting and by cablecasting. Besides, as well as research question 1, vertical diversity in other optional combinations of media, such as over-the-air broadcasting plus satellite broadcasting, will be examined.

Research Method

In order to ensure that each day of weekdays was represented and to examine a typical programming schedule during weekdays, a five-day composite week for August 2002 was constructed. The study used a sample of one Monday, which was drawn at random from the four Mondays in the month, one Tuesday, and so on, until all weekdays had been included. For the sampling, a random number table containing from 1 to 31 was used. The number hit on the table was chosen as a date representative of each weekday. When the number representing the same day of a week was hit again, for example 19 after 26, both of which represented Monday, the second number was ignored. In this manner, August 7 (Wed.), 13 (Tue.), 16 (Fri.), 22 (Thu.), and 26 (Mon.) were selected. Note that Japan's networks do not have special summer schedules, unlike their American counterparts, and hence August is not a time for reruns or tryouts of new series in Japan. On the days selected, coders observed the programming schedule of Japan's broadcasters and cablecasters. The time frame was five hours a day, from 6 p.m. to 11 p.m.²¹

Program-type Categories

The problem that we had to consider next was categories chosen for program placement. The outcome of program-type diversity measurements can be greatly influenced by the choice of the number of categories and their appropriateness (Litman, Hasegawa, Shrikhande, and Barbatsis, 1994). Nonetheless, researchers have seldom

²¹ This time frame follows Youn's observation (1993). There is considerable validity in choosing the time frame since it covers hours containing the largest number of audiences and hence the most critical daypart for networks. It is assumed that diverse audiences watch television during the time frame. For reference, prime time consists of the hours from 8 p.m. to 11 p.m. during Monday through Saturday, and 7 p.m. to 11 p.m. on Sunday. In Japan, the time frame from 7 p.m. to 11 p.m. is often called "golden time".

relied on the same typology of program categories. For instance, Wakshlag and Adams (1985) assign programming into 37 program-type categories, much more than the 14 in Dominick and Pearce's study (1976). In the extreme, it could be argued that every program is unique in and of itself and hence should occupy its own program category (Litman, 1992, p.128).

Indeed, Litman et al. (1994) note that one of the most complex and disputatious aspects of research measuring diversity is the decision concerning the number of categories chosen. They identify fifteen categories (see Table 6). What is unique is that narrative fictional stories are divided into three categories, depending on whether they are created specifically for television or have origins in cinema or on the theatrical stage. According to Litman et al. (1994, p.136), "The form of the originating media plays a critical and different role in the story telling process, thereby mandating separate categories rather than a single narrative drama area." In addition, what draws our attention is that the relatively uncommon types, religion and minority, are categorized independently. These categories reflect religious and ethnic diversity in the U.S. well.

Table 6:	Program-ty	pe Categories	by L	itman	et a	1.
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TV NarrativeCCinema NarrativeSCinema NarrativeSTheatrical NarrativeADocumentaryCNews/Current AffairsFEducation/InstructionalMHobby/Personal InterestCVariety/ShowC

Game Sports Arts/Music Children Religion Minority Other

Youn (1993) categorizes programs into twelve types as shown in Table 7. Youn never refers to the definition of these categories. Thus, how some categories, such as lowbrow amusement, contest, classic, and war/crime, are exactly defined is not clear. Additionally, the categorization lacks some typical program types, movies and children's programs.

Table 7: Program-type Categories by Youn

SportsSportsNewsIEducational/InformationalILowbrow AmusementIDramatic StoryIComedyI

Talk/Soap Popular Music Classic Contest War/Crime Other

We then look at studies conducted in Japan. Kamijo (1998) lists thirteen genres in his research of audience behavior (see Table 8). Wide shows, which are targeted at housewives and thus broadcast the whole morning and afternoon, mainly deal in show-business gossip and scandalous news. Interestingly, animations are separated from children's program although most of them are certainly targeted to children and youngsters in Japan. The separation of animation from children's programs is also found in the next example of categorization.

Table 8: Program-type Categories by Kamijyo

News	Animation
Drama	Quiz Show
Variety Show	Music
Hobby	Sports
Culture	Movie
Wide Show	Other
Children	

Video Research, a Japanese audience ratings organization, uses categories shown in Table 9 (Kambara, 1992). What catches our eye here is the categorization for three types of dramas. While Litman et al. (1994) classify narratives according to the origins, Video Research categorizes dramas by the detailed genre. The difference between commentary and sports event is not clear.

Table 9: Program-type Categories by Video Research

News Reports Commentary Education and Culture Practical Use Music Quiz and Game Entertainment Cartoon and Comic

Children's Program Ordinary Drama Historical Costume Drama Thrillers and Action Drama Comedy Theater Film Sports Event Other

Comparing four types of categorization in both Japan and the U.S., we notice that they are much the same except for a few differences, which are probably based on the national character or a component of a nation (e.g. religion or minority in the U.S.). For example, eight out of fifteen categories identified by Litman et al. are precisely congruent with those by Video Research. In addition, some categories, such as variety and entertainment, or hobby/personal interest and practical use, may be synonymous.

Considering the four types of categorization above, we selected the program types for our research. The fourteen program types are shown in Table 10. These fourteen categories are mutually exclusive, and every program falls into one and only one of the categories. They include the reality show category, which is a relatively new but essential genre on modern day presentation of television, in addition to well-known genres.

Table 10: Program-type Categories

News Reality Show Sports Music Drama Culture Hobby/Practical Use Movie Entertainment/Variety Education Ouiz/Game Children Comedy Other

Clear definitions are required for all categories. The news category includes daily newscast, news shows, news documentary, and discussion and interview programs dealing with current affairs. The sports category contains sports events regardless of live or taped broadcast, sports documentary, and interview programs featuring athletes. The drama category involves all genres of drama originally produced for television, such as ordinary drama, the mini-series, the police series, costume drama, and so on. Soap operas are included in this category. Similarly, the movie category basically contains all genres of movies that have origins in cinema. In addition, TV movies originally created for television are included in this category because of their format, such as length.

The entertainment/variety category contains so-called variety shows. They are usually taped in studios and are composed of conversation among the hosts and entertainers or celebrities and light entertainment performances. The quiz/game category includes shows in which participants win or lose through quizzes or games. Some programs categorized into the entertainment/variety category might contain a game or quiz. The boundary line between them is whether or not the game or quiz comprises the heart of the program. For instance, some Japanese variety shows might contain quizzes or games as a part of the entire composition. These quizzes or games are intended to warm up conversations after them. In these cases, the emphasis of programs is obviously laid on the conversations, rather than quizzes or games themselves. The comedy category includes stand-up comedy or situation comedy. The only object is to get a laugh from the viewers. Specific difference between the entertainment/variety and the comedy category is that there is usually no host in programs contained in the latter category.

The reality show category involves programs filmed outside studios, and the

stories usually comprise of introduction, development, turn, and conclusion although they are ostensibly nonfiction. A reality show is referred to as "document variety" in Japan. The difference from authentic documentaries is that there exist characters premised on filming and various directions in reality shows. The music category includes live or taped music performances. Like the quiz or game in the quiz/game category, the heart of programs classified in the music category is music itself. This differentiates the music category from entertainment programs, which include music performance as a part of the composition.

The culture category includes travel, history, nature, or art. Nonfiction documentary films that deal with such topics are categorized into this area. The hobby/practical use category contains a wide range of programs in such areas as health, cooking, fashion, living information, or other personal instruction techniques. Compared to the culture category whose emphasis is usually put on introducing an unknown or inaccessible world, the hobby/practical use category deals with viewers' near affairs. This category is collectively called an informative program in Japan. The education category involves academic, formal instructional programs. The children category includes programs specifically produced for and targeted at children. Movies and dramas for children and cartoons are contained in this category. Finally, the other category is the residual for programming that does not apply to any of the categories above.

It might be found that the categorization excludes two common genres: documentary and talk show. Because these programs have a wide application, it would be a stretch to identify them as their own categories. Rather, it is valid to segment them into the news, sports, culture, or hobby/practical use category according to their main

themes. For instance, a documentary program depicting a life of a movie star should be classified into the movie category.

Sample Networks

Table 11 shows Japan's over-the-air broadcast networks, consisting of five commercial broadcasters and one public broadcaster with two channels.

 Commercial Broadcast Networks
 Public Broadcast Network

 NTV
 NHK (General Channel)

 TBS
 NHK (Educational Channel)

 CX
 ANB

 TX
 TX

Table 11: Over-the-air Broadcast Networks

The diversity of program types offered by Japan's over-the-air broadcasting was compared with that offered by Japan's cablecasting. The networks/broadcasters included in cablecasting were listed in Table 12. They are all offered by Jupiter Telecommunications (J-COM Broadband), Japan's top MSO, at the service areas in Tokyo.²² The sample of 27 cable networks exhaustively covered all cable networks contained in the basic service as of August 1, 2002.²³ Additionally, some premium networks were added on the grounds that they are definite features in cablecasting (Dizard, 1997). Consequently, the sample of Japan's cablecasting covers 41 networks/broadcasters: 7 channels by 6 over-the-air broadcast networks, 2 independent

²² J-COM Broadband serves in 21 managed franchises, most of which are located around large cities, such as Tokyo, Osaka, Sapporo, and Fukuoka. It was established in January 1995, as a joint company of Sumitomo Corporation and Tele-Communications, Inc (TCI). The current principal shareholders are Sumitomo, Liberty Media, and Microsoft. As of the end of December 2002, the number of households subscribing to J-COM TV is 1,422,800 (Jupiter Telecommunications, 2003).

²³ The sample, however, does not include Home Channel and Weather Channel because data on their programming schedules were not available.

stations, 27 basic cable networks, 2 satellite broadcasters, and 3 premium networks.

Commercial Broadcat Networks	Basic Cable Networks	Satellite Broadcasters
NTV	Super Channel	NHK BSI
TBS	FOX	NHK BS2
CX	AXN	
ANB	Channel NECO	Premium Networks
ТХ	Jidaigeki (Historical Costume Drama) Ch.	wowow*
	Nihon Eiga (Japanese Movie) Channel	Star Channel
Public Broadcast Network	CSN Movie	Eisei Gekiyo (Satellite Theater)
NHK General	Space Shower	
NHK Educational	Viewsic	
	MTV	
Independent Stations	Sky A	
TVK	Gaora	
MX	J Sky Sports 1	
	J Sky Sports 2	
	J Sky Sports 3	
	Golf Network	
	LaLa TV	
	Discovery	
	Animal Planet	
	History Channel	
	Igosyogi (Japanese Chess) Channel	
	CNN International	
	Nikkei CNBC	
	Family Gekgyo (Family Theater)	
	Kids Station	
	Cartoon Network	
	Animax	

Table 12: Networks/Broadcasters Included in Sample Cablecasting

* This categorization for WOWOW requires further amplanation. In a sense of being distributed via a broadcasting satellite, WOWOW should be classified into satellite broadcasters. However, while NHK's satellite services are generally included in a basic cable pack, WOWOW is unsupercisedly offered as a premium channel. Since this thesis intends a comparative study of the programming by broadcasting and cablecasting, it is appropriate to follow the norm of cable package here.

Coding

In the research, two coders conducted the categorization of all programs into each program type. Ideally, coders should watch all subject programs and categorize them into one of the program types. Nevertheless, Japanese programs are obviously not available in the U.S. where the coding was conducted. Coders, therefore, physically had no choice but to refer to secondary sources, such as web sites or television magazines, to gather data about Japanese programming schedules and the details of programs. In a case that two coders categorized a program differently, full consensus was reached through the discussion between them, and a code was entered.

Measurement and Assessment

For the calculation of horizontal diversity, the number of different program-type options offered by broadcasting/cablecasting for each one-hour period was counted. The number of options available would vary from one where all networks/broadcasters offer same type of programming to fourteen where each type of programming is offered by at least a network/broadcaster. For the average number, the sum of program-type options on each hour was divided by 25 (five hours per day multiplied by five days).

In order to measure vertical diversity for an individual network/broadcaster and overall diversity for groups (e.g. over-the-air broadcast networks), the Herfindahl-Hirschman Index (HHI) was employed. HHI can be expressed in the following mathematical formula: $Hi=\Sigma pi^2$. This measure involves summing the squares of each program type's share of the total hours of available programs. The higher the HHI, the greater the concentration of programming into a few program types and hence the lower the amount of the diversity (Litman, 1979, p.403). Thus, the HHI declines with increases in the number of program types and equality among the program types. If 14 program types based on the categorization in our research are offered at the same amount, the index is 0.07. To the contrary, if a network/broadcaster provides only one type of programming, the index is 1.00.

Some might wonder why the HHI was not employed to measure horizontal

diversity in this research. This is because counting the number of different program-types at any given point in time, relative to measuring the equality/inequality of programming, more clearly illustrates the range of options available to viewers. On the other hand, counting the number of different program-types within an individual network/broadcaster might be inadequate as a diversity measurement. The programming of a broadcaster that allocates 90 hours to a program type and 10 hours to 9 other program types is not as diverse as the programming of another broadcaster that allocates 100 hours to 10 program types equally. Thus, we employed the HHI to measure vertical diversity.

CHAPTER 5: Results and Analysis

Intercoder Reliability

Table 13, 14, 15, 16, and 17 show programming during the evening schedule from 6 p.m. to 11 p.m. Intercoder reliability for coding was 83.2 percent (1042 out of 1252 programs). Disagreements were often found between the culture and the hobby/practical use category. This seems to stem largely from the fact that it was often hard to distinguish if a program contained in either of those categories was only for appreciation or for practical usage. For instance, a program dealing with epicurean food of the world might be categorized as the former and that introducing recipe in local restaurants as the latter. Yet, it depends on viewers whether to watch the content for appreciation or for cooking or eating. The boundary line between those categories was sometimes very obscure.

Additionally, hybrid of genres was observed in some programs. Entertainment programs especially tend to incorporate other elements, such as a quiz, music, or videos edited as a reality show. As an extreme case, a program identifies itself as a news variety show. This is the program in which some comedians and entertainers make jocular remarks about news events, mainly bizarre ones. In these cases, coders decided the category the program was placed in, considering which elements formed the core in the program. That is, this process was based on fairly subjective judgments and occasionally led to dissention.

Horizontal Diversity

First, we will discuss research question 1: how many different program-type
options are available on broadcasting and cablecasting for each one-hour period. As shown in the column under "Commercial Over-the-air Networks" of Table 18, five commercial over-the-air broadcast networks provide 3.68 types of programming on average. There is not too much duplication of programming among the networks because of the counterprogramming strategy employed by them. Out of 25 hours for the observation, five different types of programming are provided in 6 hours and four types in 11 hours. That is, viewers are offered more than four different types of programming by five commercial broadcast networks at 68 percent of the sample time slots.

The programming schedule at 7 p.m. on August 7 might be a good example to illustrate the counterprogramming (see the top five rows under "7:00-8:00" of Table 13). A variety show, a sports program, a culture program, a reality show, and a children's program are offered by five different commercial broadcast networks. On the other hand, a few number of program-type options are available at 6 p.m. This is because four out of five commercial broadcasters allocate this time slot for news. During 9 p.m. and 10 p.m. on August 7, three commercial broadcast networks offer dramas (see Table 13). It is, however, important to consider that each drama certainly targets narrowly segmented viewers, such as youth, housewives, and elderly. This is a good example to show how the decision concerning the programming category influences the outcome of program-type diversity measurements. In this research we lumped all dramas together regardless of the detail of content or targeted audiences. If we had more segmented categories, such as a historical drama category and a soap opera category, in addition to an ordinary drama category, three different types of programming would have been offered by the three broadcast networks. On the other hand, it is likely that the audiences for variety shows are not so narrowly segmented by content as those for

	6:00	-7:00	7:00	-8:00	8:00	-9:00	9 00-	10:00	10 00	-11 00	
NT♥		1		5		9		5		3	
TBS		1			2			5		3	
СХ		1	1	0		5		3		5	
ANB		1			8			3		1	
ТХ	13	13	13	13	1	1			3		
NHK (General)		1	1		10	1	9	9		1	
NHK (Education)	13	1	3 11	11	11	1	11	11	10	1	
TVK	1	2	1	1	1	3	13	1		9	
MX	11	1			2				2		
Super Channel		3	3	3		3		3		3	
FOX		3		3	1	.3		3		7	
AXN		3		3		3			\$		
Channel NECO	1	3			3			4		14	
Jidaigeki Ch.		3		3		3		3		3	
Nihon Eign Ch.		4			4			4	\$		
CSN Movie		4			•				1		
Space Shower	1	9	9	9	9	9		9		9	
Viewsic	9		9		!	9		9		9	
MTV	9		9					9			
Sky A					2					2	
Gaora					2					7	
J Sky Sports 1	2				2					2	
J Sky Sports 2				2				L	2		
J Sky Sports 3	2			2							
Golf Network					2				2	2	
LeLe TV	1	0	11	7	1	1		3	3		
Discovery	10	10	1	0	1	0	1	0	10		
Animal Planet	10	10	10	10	1	0	10	10	1	0	
History Ch.	1	0	1	0	1	0	1	0	1	0	
Igosyogi Ch.	11	1	1	11		1	1		11	11	
CNN Intl.	1	2	1		1	1	1	2	1	1	
Nikkei CNBC	1	1	1	1	1	1	1	1	1	1	
Family Gekijyo	13	13	13	13		3		3		3	
Kids Station	13	13	13	13	13	13	13	13	13	13	
Cartoon Net.	13	13	13	13	13	_13	13	13	13	13	
Azimaz	1	3	13	13	13	13	13	13	13	13	
NHK BS1	1	2 1			2		1 2	10 10	2	2 10 1	
NHK BS2	13	13	1	10		4		10	<u> </u>	3	
WOWOW	13	9		4			4			4	
Star Channel	4		4			4		4	1		
Einei Gekijyo	•	7			1			4		4	

Table 13: Programming on Aug.7 (Wed.)

1: News, 2: Sports, 3: Drama, 4: Movie, 5: Entertainment/Variety, 6: Quiz/Game, 7: Comedy,

8: Reality Show, 9: Music, 10: Culture, 11: Hobby/Practical Use, 12: Education, 13: Children,

		6:00	7:00		7:00	-8:00	80	0-9:00	0	9:00	10:00	10:00	-11.00	
NTV			1				2					3		
TBS			1			8		5			8		5	
СХ			1		1	.1		3			3		3	
ANB			1		1	. 1		11			5		1	
TX	1	3	1	3	13	13		6		1	1		9	
NHK (General)			l		1		14		1	1	10		1	
NHK (Education)		2		13	3 11	14	1		1	11	11	4	1	
TVK	1	1	l	3		1		3		13	1		9	
MX	1	1		1			4			4	1		3	
Super Channel			3			3		3			3		3	
FOX			3			3		13		1	3		3	
AXN			3			3		3				ł		
Channel NECO		1	3				4				4		4	
Jidaigeki Ch.			3			3		3			3		3	
Nihon Eiga Ch.		6	1				4				4	<u> </u>		
CSN Movie	4	ŀ		4			4					ł		
Space Shower				9		99	9		9	9	99		9	
Viewsic	5)	9	9		9		9			9		9	
MTV					9			<u>.</u>	9	•			9	
Sky A								2						
Geore							2					5		
J Sky Sports 1	2						2						2	
J Sky Sports 2					2						2			
J Sky Sports 3					2								2	
Golf Network			2					2				2	2	
LaLa TV		1		11	11 11	7		11			3		3	
Discovery	1	0	1	0	1	0		1		1	0	10		
Animal Planet	1	0	1	0	10	10	10		10	10	10	10		
History Ch.		1	0		1	0		10		1	0	1	.0	
Igosyogi Ch.		1	1		11	1	·		11		11 11	1	1	
CNN Intl	1			2		1	1	_	1	1	2	1	1	
Nikkei CNBC	1		1	1	1	1	1		1	1	1	1	1	
Femily Gekijyo	1	3	1	3	13	13		3			3		3	
Kids Station	1	3	1	3	13	13	13		13	13	13	13	13	
Cartoon Net.	1	3	1	3	13	13	13		13	13	13	13	13	
Animex		1	3	-	13	13	13		13	13	13	13	13	
NHK BS1						2					10	2	2 10 1	
NHK BS2	1	3	1	3	1	11		13			4		9	
WOWOW			2		13	13	13		13		4		2 4	
Ster Chennel		4					4				4		4	
Eisei Gekijyo	3	14	1	3		4					4		4	

Table 14: Programming on Aug.13 (Tue.)

1: News, 2: Sports, 3: Drama, 4: Movie, 5: Entertainment/Variety, 6: Quiz/Game, 7: Comedy,

8: Reality Show, 9: Music, 10: Culture, 11: Hobby/Practical Use, 12: Education, 13: Children,

	6	:00	-7:00	7:00	-8:00	8:00	-9:00		9:00	10:00	10.00	-11:00
NTV			1		5		8				4	
TBS			1			2				5		3
сх			1		8		8				5	
ANB			1	13	13		9		1	0		1
тх	13		13		11		6			5	1	0
NHK (General)			1	1		9		1	1	.0		1
NHK (Education)	13		13 13	11	14	11		1	1	1	10	1
TVK	1				2					1	11	2
MX	11		1	13	10	10	10		1	1	10	1
Super Channel	3		3		3		3			3		3
FOX			3		3		3			3	1	3
AXN			3		3		3				•	
Channel NECO		4	4		4	1					ł	
Jidaigeki Ch.			3		3		3			3		3
Nihon Eiga Ch.	4		4			<u>ا</u>		_		4	<u> </u>	
CSN Movie			3			1					ļ	
Space Shower	9	9	9		9	9	9			9	9	9
Viewsic	9		9		9	!	9			9	9)
MTV			9)			9		9	9	9	9
Sky A							2	_				
Geore						2						2
J Sky Sports 1		_				2						2
J Sky Sports 2				2							2	
J Sky Sports 3				2							2	
Golf Network	2		2			2		_		2	2	2
LeLa TV	14			3	7	1	1	_		4		11
Discovery		1	0	1	0	1	0		10	10	10	
Animal Planet		1	0	10	5	11	10	_	10	10	1	0
History Ch.		1	0	1	0	1	0		1	0	1	0
Igosyogi Ch.		1	1		11			$\frac{1}{-1}$	1		1	1
CNN Intl.	1		2		1	1	1	_	1	2	1	9
Nikkei CNBC	1			1		1		_	1		1	
Femily Gekijyo	13	_	13	13	13		5	_		5		5
Kids Station	13		13	13	13	13	13		13	13	13	13
Cartoon Net.		1	1	10	1	13	13		13	13	13	13
Animer		1	ſ	13	<u>13</u>	13	13		13	13	13	13
NHK BS1					2					10 10	10	1
NHK BS2	14		13	1		1	3			4		10
WOWOW	4		13	13	13	13		4			<u> </u>	
Star Channel	4	1			4					4		
Finei Gekiium	4		4		4		1	14		4	ļ.	

Table 15: Programming on Aug.16 (Fri.)

1: News, 2: Sports, 3: Drama, 4: Movie, 5: Entertainment/Variety, 6: Quiz/Game, 7: Comedy,

8: Reality Show, 9: Music, 10: Culture, 11: Hobby/Practical Use, 12: Education, 13: Children,

	6:00	-7:00	7:00	-8:00	8:00	-9:00	9:00	10 00	10:00	-11:00
NTV		1			2			5		5
TBS		1	1	1		9		3		3
CX		1		5			2			3
ANB		1		8		3		3		1
тх	13	13	13		8				4	
NHK (General)		1	1	1	11	1	1	1		1
NHK (Education)	13	13	3 11	14	11	1	11	11	4	1
TVK	1 10	9		2		2	13	1		9
MX	11	1			2		11	1		1
Super Channel		3		3	3	3	3	3		3
FOX		3		3	1	3		3		7
AXN		3		3		3			ŧ	
Channel NECO		4			•			4		4
Jidaigaki Ch.		3	:	3		3		3		3
Nihon Eiga Ch.	4	4			•				ŧ	
CSN Movie		3			•				ŧ	
Space Shower	9	9		9		9		9		9
Viewsic	9	9	9	•		9		9		9
MTV		9)			2	1	3	8	7
Sky A			2				2			2
Geore					?					7
J Sky Sports 1		2			2			2		2
J Sky Sports 2			2						2	
J Sky Sports 3			2							
Golf Network	2	2				2			2	2
LeLe TV	10	10	14	7	1	1		9		11 11
Discovery	1	0	1	0	1	0	1	0	1	0
Animal Planet	1	0	10	10	10	10	10	10	10	
History Ch.	1	0	1	0	1	0	1	0	1	0
Igosyogi Ch.	1	1	1	1		11		11	11	11
CNN Intl.	1	2	1		1	1	1	2	1	1
Nikkei CNBC	1	1	1	1	1	1	1	1	1	1
Family Gekijyo	13	13	13	13		3		3		3
Kids Station	13	13	13	13	13	13	13	13	13	13
Cartoon Net.	13	13	13	13	13	13	13	13	13	13
Animax	1	3	13	13	13	13	13	13	13	13
NHK BS1	1	14 1		2		1	2	1	1	0
NHK BS2	13	13	1	10	1	3	9		4	
WOWOW	13	9	1	3	1	3		4		9
Ster Channel		4			4				1	
Eisei Gekijyo	4	13		4			4		4	1

Table 16: Programming on Aug. 22 (Thur.)

1: News, 2: Sports, 3: Drama, 4: Movie, 5: Entertainment/Variety, 6: Quiz/Game, 7: Comedy,

8: Reality Show, 9: Music, 10: Culture, 11: Hobby/Practical Use, 12: Education, 13: Children,

	6:00	-7:00	7:00	-8:00	8:00	-9:00	9:00-	10.00	10:00	-11:00
NTV		1	13	13		5	1	1		3
TBS		1		5		3			3	
CX		1		5		9		3		5
ANB		1		3			2			
TX	13	13	1	1		2			1	
NHK (General)		1	1	1	10	1	1	3		l
NHK (Education)	13	13	3 11	14	11	1	11	11	1	1
TVK	1 11	13	2	10	11	11	10	1	11	9
MX	11	1	1	3	1	4	1	0		3
Super Channel		3		3	3	3		3		ŧ
FOX		3		3	3	3	1	3		3
AXN		3		3		3			1	
Channel NECO	1	3			•		3	3		3
Jidaigaki Ch.		3		3		3	3	3		3
Nihon Eign Ch.			ļ		L	1			<u> </u>	
CSN Movie		3			•				\$	
Space Shower		9			2		5)	9	9
Viewsic	9	9	9)		9	5))
MTV						9	9	9)
Sky A					2					2
Geore			2				2			2
J Sky Sports 1			2				2			2
J Sky Sports 2	2	2			2				2	2
J Sky Sports 3					2					2
Golf Network		2		2		2		2	2	2
LaLa TV	11	11	11	7	1	1		3		3
Discovery	1	0	1	0	1	0	1	0	10	
Animal Planet	1	0	10	10	10	10	10	10	10	
History Ch.	13	10	1	0	1	0	1	0	10	2
Igosyogi Ch.	11		11	11		11		11	1	1
CNN Intl.	1	2			1	1	1	2	1	1
Nikkei CNBC	1	1	1	1	1	1	1	1	1	1
Femily Gekijyo	13	13	13	13		3		3		3
Kids Station	13	13	13	13	13	13	13	13	13	13
Cartoon Net.	13	13	_13	13	13	13	13	13	13	13
Animex	1	3	13	13	13	13	13	13	13	13
NHK BS1	1	2 1		2		1	2 2	1	1	0
NHK BS2	2	13	1		1	4		9 10	1	0
WOWOW	13	4			4				4	
Star Channel			4			4	1	4		4
Eisei Gekijyo	6	4		4				ł		4

Table 17: Programming on Aug. 26 (Mon.)

1: News, 2: Sports, 3: Drama, 4: Movie, 5: Entertainment/Variety, 6: Quiz/Game, 7: Comedy, 8: Reality Show, 9: Music, 10: Culture, 11: Hobby/Practical Use, 12: Education, 13: Children, 14: Other

	Commercial OTA	AII OTA	OTA and	Non OTA	All	Total W/O
	Networks(5)	Networks(7)	Satellite(9)	Networks(34)	Total(41)	Premium(38
	A	A+ ₿	A+B+E	C+D+E+F	A+B+C+D+E+F	A+B+C+D+
Aug. 7						
брт-7 рт	2	2	3	9	9	8
7pm-8pm	5	7	7	9	11	11
8pm-9pm	5	7	8	8	10	10
9pm-10pm	2	4	8	8	9	9
10pm-11pm	3	4	6	10	11	11
Aug. 13						
6pm-7pm	2	3	3	9	9	8
7pm-8pm	4	6	6	9	11	11
8pm-9pm	5	7	8	8	11	11
9pm-10pm	4	5	7	8	10	10
10pm-11pm	4	5	7	9	9	9
Aug. 16						
ópm-7pm	2	2	4	9	9	9
7pm-8pm	5	8	8	11	12	12
8pm-9pm	4	6	7	9	11	10
9pm-10pm	3	4	5	8	9	9
10pm-11pm	5	5	5	9	10	10
Aug. 22						
6pm-7pm	2	2	3	9	9	9
7pm-8pm	5	7	8	9	11	11
8pm-9pm	4	6	7	8	9	9
9pm-10pm	4	6	7	8	9	9
10pm-11pm	4	4	5	10	11	11
Aug. 26						
60m-70m	2	2	3	8	8	8
7pm-8pm	4	6	7	10	11	11
8pm-9pm	4	7	8	9	10	10
9mm-10mm	4	5	8	9	9	9
10pm-11pm	4	4	5	8	9	9
Mean	3.68	4.96*	6.12	8.84	9.88*	9.76
SD	1.11	1.81	1.81	0.80	1.05	1.13

Table 18: Horizontal Diversity

*: Significant at ps.01 for paird t-test mean comparison

Note that figures indicate the number of program-type options for each one hour period.

A(5). NTV, TBS, CX, ANB, TX

B(2). NHK General, NHK Educational

C(2). TVK, MX

D(27). Super Chennel, FOX, AXN, Chennel NECO, Jideigeki Chennel, Nihon Eiga Chennel, CSN Movie, Space Shower, Viewsic, MTV, Sky A, Geore, J Sky Sports 1, J Sky Sports 2, J Sky Sports 3, Golf Network, LaLa TV, Discovery, Animal Planet, History Chennel, Igosyogi Chennel, CNN International, Nikkei CNBC, Femily Gekijyo, Kide Station, Certoon Network, Animes

E(2) NHK BS1, NHK BS2

F(3). WOWOW, Ster Channel, Eisei Gelejyo

dramas. Accordingly, the hours, on which entertainment shows are provided simultaneously by more than two commercial broadcasters, are only 2 out of 25 hours for the sample time slots, much less than 8 hours that dramas are offered simultaneously by more than two broadcasters.

Two public broadcast channels of NHK increase the number of program-type options offered by over-the-air broadcast networks from 3.68 to 4.96. We can see from Table 18 that viewers are provided more than four types of programming in 20 hours by over-the-air broadcasting. This makes up 80 percent of the sample time slots, 12 percent higher than the case not containing the two public channels. Note that in Japan, viewers are basically offered an average of five types of programming at each hour from 6 p.m. to 11 p.m. in weekdays even if they do not subscribe to other video distribution services.

The center of the issue is how the number of program-type options varies by subscribing to a cable service. The column under "All Total" of Table 18 illustrates the number of different program types available on cablecasting. It is clear that cablecasting including 41 channels doubles the program-type options to 9.88 from 4.96 on broadcasting alone. We can say with fair certainty that cablecasting increases program-type options. At the same time, nevertheless, we notice that the number of program-type options does not increase as much as the increase of the number of channels. While broadcasting with seven channels provides about five types of programming on average, cablecasting with 41 channels offers about 10 types. Presumably, this is mainly due to the duplication of programming by cable networks specializing similar content. For instance, 34 sample cable networks contain 6 networks specializing in sports programming. Given that they basically provide only sports programming, cable viewers are usually offered at least six kinds of sports content by

them. In the same way, movies, dramas, culture programming, and children's programming are basically provided by several cable networks at one time (see Table 13-17).

Yet, on an individual basis, viewers might obtain positive utility from choices among perfect substitute programs within their favorite categories (Litman, 1992). For instance, sports fans could be more satisfied to constantly access several sports programs in order to make their own viewing selection rather than having only one option. That is, somewhat inconsistent with policy makers who evaluate the total number of diverse program types available to all viewers, individual viewers might put greater importance on more options within their preferences.

Despite the certain increase of program-type options brought by cablecasting, many Japanese cable subscribers do not necessarily regard cable television as contributions to more program types or vehicles to access programming more agreeable to their tastes, as we saw at the outset of this thesis. A key to solve this discrepancy might lie in the concept of "channel repertoire." Channel repertoire is the set of channels watched regularly by an individual or household (Heeter and Greenberg, 1988). What is important is that the repertoire is as limited as most cable subscribers watch only a small set of channels even under multichannel environments, but broadcast networks are common across channel repertoires (Heeter and Greenberg, 1988; Furguson and Perse, 1993). Given Japanese cable viewers whose repertoire includes only broadcast networks, they might not be aware of the increase of program types offered by other networks.

Finally, how different combinations of video services vary the number of program-type options should be considered. For instance, it is very common among

Japanese to add NHK's two satellite broadcast channels to over-the-air broadcasting. As shown in the column under "Over-the-air and Satellite" of Table 18, two satellite channels certainly increase program types available to viewers. Given viewers subscribing to the satellite services, they have larger number of program-type options, an average of 6.1 types per hour, than do non-subscribers. On the other hand, whether or not to subscribe to premium channels does not greatly influence the number of different program types available to viewers (Compare the column under "All Total" of Table 18 to that under "Total without Premium").

Vertical Diversity

We will now shift the emphasis away from horizontal diversity to vertical diversity in order to examine an answer to research question 2: "What is the degree of diversity in programming by a network/broadcaster?" Programming breakdowns by hours and by percentage are shown in Table 19 and 20.

Commercial Broadcast Networks

Each commercial over-the-air broadcast network offers well-balanced general programming, as their schedules are programmed with a broad variety of program types. On average, eight to ten types of programming are provided by each of the networks. It is noteworthy that networks not only offer programming geared to the general mass audience, such as variety shows, but are also engaged in forms of narrowcasting that appeals to a specific demographic group, such as reality shows for young viewers or programming concerning hobby/practical use for housewives or old viewers.

At the same time, broadcast networks attempt channel differentiation by

	N	S	D	Mo	E/V	Q/G	Co	R	Mu	Cu	H/P	Ed	Ch	0	
NTV	Sh	4h	44	2h	óh			lh	lh		lh		1h		25h
TBS	Sh	4h	7h		4 h	lh		2h	lh		1h				25h
CX	Sh	2h	óh		Sh	2h		2h	1h	lh	11.				25h
ANB	10h	2h	44		lh			3h	lh	lh	2h		lh		25h
TX		lh	2h	4h	ih	2h		1h30m	lh	1 h	44		7h30m		25h
NHK (General)	15 h55 m		45m						2hl Sm	4h05m	45m			1 hl 5m	25h
NHK (Edu)	3hi 5m	45m		1h30m						1h30m	11 h05 m		4h55m	2h	25h
τνκ	Shi Sm	6h45m	lh						3h45m	11n05m	3h40m		3h30m		25h
MX	бh	бь	2h	2h30m						3h	3h		1 h30 m	lh	25h
Super Channel			24h	1h											25h
FOX			17h				2h	1 h					Sh		25h
AXN			15h	10h											25h
Channel NECO			4h	17h30m									3h	30m	25h
Jidaigeka Ch.			25h												25h
Nihon Eiga Ch.				25h											25h
CSN Movie			3h	22h											25h
Space Shower									25h						25h
Viewsic									25h						25h
MTV							30m	30m	23h				lh		25h
Sky A		25h													25h
Gaora		22h			1 h		21								25h
J Sky Sports 1		25h													25h
J Sky Sports 2		25h													25h
J Sky Sports 3		25h													25h
Golf Network		25h													25h
LaLa TV	45m		6h30m	1h45m			2h30m		1 h30m	2h	9h			lh	25h
Discovery	lh									24h					25h
Animal Planet					30m					2 4 b	30m				25h
History Ch.		30m								24			30m		25h
Igosyogi Ch.											25h				25h
CNN Intl.	19 130 m	Sh							30m						25h
Nikkei CNBC	25h														25h
Family Gekijyo			15 h										101		25h
Kids Station													25h		25h
Cartoon Net.													25h		25h
Animax													25h		25h
NHK BS1	3hl 5m	16 h30m								4 640 m				35m	25 h
NHK BS2	2h30m	30m		6 h30 m					1 hl 5m	2 b45 m	lh		8h	2h30m	25h
WOWOW		1 hi0m		1 4630m					1 h30m				7hSOm		25h
Star Channel				25h											25h
Eisei Gekijyo			15m	22h30m			11						lh	15 m	25h

Table 19: Programming Breakdowns (Hours)

N: News, S: Sports, D: Drama, Mo: Movie, E/V: Entertainment/Variety, Q/G: Quiz/Game, Co: Comedy, R: Reality Show, Mu: Music, Cu: Culture, H/P: Hobby/Practical Use, Ed: Education, Ch: Children, O: Other

	N	S	D	Mo	E/V	Q/G	Co	R	Mu	Cu	H/P	Ed	Ch	0	
NTV	20.0	16.0	16.0	8.0	240			4.0	4.0		40		40		100 0
TBS	200	160	28.0		160	40		80	4.0		40				100 0
CX	200	8.0	24.0		200	8.0		8.0	40	40	40				100 0
ANB	40.0	80	16.0		40			12.0	4.0	40	8.0		40		100 0
TX		4.0	8.0	16.0	4.0	8.0		6.0	4.0	4.0	16.0		30.0		100.0
NHK (General)	63.6		3.0						9.0	16.4	3.0			5.0	100.0
NHK (Edu.)	13.0	3.0		6.0						6.0	44.3		19.7	8.0	100 0
TVK	21.0	27.0	4.0						150	4.3	146		14.0		100 0
MX	24.0	24.0	8.0	10.0						12.0	12.0		6.0	4.0	100.0
Super Channel			96.0	40											100 0
FOX			68.0				8.0	4.0					20.0		100 0
AXN			60.0	40.0											100 0
Channel NECO			16.0	70.0									12.0	2.0	100 0
Jidaigela Ch			100.0												100.0
Nihon Eiga Ch.				100.0											100 0
CSN Movie			12.0	88.0											100.0
Space Shower									100.0						100 0
Viewsic									100.0				_		100 0
MTV							2.0	20	92.0				4.0		100 0
Sky A		100.0													100.0
Gaora		88.0			4.0		8.0								100.0
J Sky Sports 1		100.0													100 0
J Sky Sports 2		100.0													100 0
J Sky Sports 3		100.0													100.0
Galf Network		100.0													100.0
LaLa TV	3.0		26.0	7.0			10.0		6.0	8.0	36.0			4.0	100.0
Discovery	4.0									96.0					100 0
Animal Planet					2.0					96.0	2.0				100.0
History Ch.		2.0								96.0			2.0		100.0
Igosyogi Ch											100.0				100.0
CNN Intl.	78.0	20.0							2.0						100.0
Nikkei CNBC	100.0														100.0
Family Gekiyo			60.0										40.0		100 0
Kids Station													100.0		100.0
Cartoon Net.													100.0		100.0
Animax													100 0		100.0
NHK BS1	13.0	66.0								18.7				23	100.0
NHK BS2	10.0	2.0		26.0					5.0	11.0	4.0		32.0	10.0	100.0
WOWOW		4.7		58.0					6.0				31.3		100.0
Star Channel				100.0											100.0
Essei Gelogyo			1.0	90.0			4.0						40	1.0	100.0

Table 20: Programming Breakdowns (Percentage)

N: News, S: Sports, D: Drama, Mo: Movie, E/V: Entertainment/Variety, Q/G: Quiz/Game, Co: Comedy, R: Reality Show, Mu: Music, Cu: Culture, H/P: Hobby/Practical Use, Ed: Education, Ch: Children, O: Other

-	-		.		
Commercial broadcal	Nenworks	basic Cable Netw	orks	Satellite Broadcu	asters
VIN	0.16	Super Channel	0.92	NHK BSI	0.49
TBS	0.18	FOX	0.51	NHK BS2	0.21
č	0.16	AXN	0.52		
ANB	0.22	Channel NECO	0.53	Premium Netwo	orks
XL	0.16	Jidaigela Ch	1.00	WOWOW	0.44
		Nihon Eiga Ch	1.00	Star Channel	1.00
Public Broadcast N	Vetwork	CSN Movie	6.79	Eisei Gekajyo	0.81
NHK General	0.44	Space Shower	1.00		
NHK Educational	0.27	Viewsic	1.00		
		MTV	0.85		
Independent Sla	tions	Sky A	1.00		
TVK	0.18	Gaora	0.78		
WX	0.17	J Sky Sports 1	1.00		
		J Sky Sports 2	1.00		
		J Sky Sports 3	1.00		
		Golf Network	1.00		
		LaLa TV	0.22		
		Discovery	0.92		
		Animal Planet	0.92		
		History Ch.	0.92		
		Igosyagi Ch.	1.00		
		CNN Ind.	0.65		
		Nikkei CNBC	1.00		
		Family Gelayo	0.52		
		Kids Station	1.00		
		Cartoon Net.	1.00		
		Anmax	1.00		

Table 21: Vertical Diversity

allocating more time to a particular program-type, for instances NTV to variety shows (24 percent), TBS to dramas (28 percent), CX to dramas (24 percent), ANB to news (40 percent), and TX to children's programs (30 percent). In particular, TX, the perennial last place in audience ratings race, clearly has a different programming strategy from the other over-the-air commercial broadcast networks. It is the only commercial over-the-air broadcaster that does not offer news at 6 p.m., but, instead, presents animation films for kids on the hour. Children's programming is the highest category for the network at 30 percent, followed by movies and hobby/practical use programs, both of which account for 16 percent of the programming (see Table 20). Taking into consideration that neither the children, the movie nor the hobby/practical use category is ranked in the top three highest programming of the other over-the-air broadcasters, we can realize the unique programming by TX.

Interestingly, all the broadcast networks provide neither cultural programming nor educational programming as much as stipulated by the Ministry of Posts and Telecommunications. According to the stipulation, broadcast networks are required to allocate a minimum of 20 percent for cultural programming and no less than 10 percent for educational programming. It is possible that those types of programming, which have less mass appeal compared to dramas or variety shows, would be offered at different time frames in a day where the number of audiences is much fewer.

Public Broadcast Network

The kind of programming offered by NHK, the only public broadcast network in Japan, with its two channels deserves careful attention. According to NHK's former President Kawaguchi, (Nishino, 1994, p.119), "Even if a certain program could attract

no more than 200,000 people, NHK should broadcast the program... The important role of a public broadcaster is to secure diversity in broadcast programming." In the analysis of the interrelationship of the programming strategies between public and private broadcasters, Noam (1987; as cited in Owen and Wildman, 1992, p.141) proposes some predictions:

(1) The program biases of commercial broadcasters create political demands for publicly sponsored programming targeted to minority audiences not served by commercial broadcasters.

(2) Private broadcasters may respond to public broadcaster programming targeted to minority audiences by becoming even more majoritarian.

Taken in the light of his predictions, it is reasonable to suppose that NHK with the two channels offers completely independent programming, not influenced by the interests of the mass audience.

As shown in Table 20, this assumption holds true. For the general channel, 63.6 percent of their programming is devoted to daily newscasts or news shows dealing with current affairs. Whether or not news programs are the presentation for minority is open to discussion, but what needs to be emphasized here is that NHK with the general channel almost constantly offers news during the evening although commercial broadcasters seldom provide news with the exception of a time slot between 6 p.m. and 7 p.m. (see Table 13–17). Despite the name, NHK educational channel, programming classified into the educational category is not at all offered by the channel. It seems that their programming focus has shifted from educational programming-oriented to

practical use programming-oriented, as 44.3 percent of the programming is allocated to hobby/practical use programs. In contrast, as shown in Table 19 and 20, NHK does not broadcast variety shows, reality shows, and only broadcasts a few dramas, all of which are popular among commercial broadcasters. These results lead us to the conclusion that NHK has a distinctive programming strategy apparently different from that of commercial broadcasters. We may say that NHK with the two channels plays a role as an alternative to commercial broadcasters.

Nishino (1994) claims that NHK offers more diverse programming than do commercial broadcasters. Yet, the programming of two NHK channels compared to that of commercial broadcast networks is more concentrated to particular program types, namely news for the general channel and hobby/practical use programs for the educational channel. As illustrated in Table 21, the Herfindahl-Hirschman Index (HHI) for commercial broadcast networks are, as a whole, lower than that for a public broadcast network. In particular, the index for the NHK general channel is relatively high, mainly because about 64 percent of their programming is allocated to news programs.

Independent Stations

Independent stations are not affiliated with any of commercial broadcast networks. Unlike U.S. superstations, such as WTBS or WGN, Japan's independent stations are not distributed to a national audience base; they are received directly with UHF antennas or retransmitted within their local areas by local cable operators. They offer general programming and, indeed, their programming covers diverse genres. The HHI for TVK, 0.18, and MX, 0.17, is nearly as low as that for each commercial

broadcast network (see Table 21). Those indices clarify that the independent stations offer a variety of programming as well as broadcast networks do.

Nonetheless, some decisive differences are observed between the programming of them and that of broadcast networks, which offer general programming as well. For instance, their programming heavily relies on sports programs. As illustrated in Table 20, TVK and MX offer sports programming at 27 percent and 24 percent, respectively. Those broadcast sports events are generally dichotomized: local games of popular sports, such as baseball games of the Yokohama Baystars or soccer games of the FC Tokyo (TVK and MX are Yokohama- and Tokyo-based UHF stations), or relatively minor sports events, such as boat races or handball. It is likely that those games are rarely provided by national broadcast networks. Besides, some other common characteristics are observed between the two stations. Both of them offer news programming at more than 20 percent, but neither of them airs variety shows, quizzes, nor reality shows, which are common on commercial broadcasting. In addition, they collectively devote only 3 hours to dramas, all of which are imports (see Table 19).

Two things, which have a great impact on the programming by independent stations, are inferred from this result. First, compared to commercial broadcast networks, they have to produce or acquire programs with extremely smaller costs because of limited audience reach.²⁴ Subsequently, programs requiring relatively large production budgets, such as dramas or variety shows, are unlikely to be produced by those stations alone. At the same time, as far as domestic programs are concerned, the lack of syndicated programs whether off-network or first-run, as discussed earlier, makes it

²⁴ The number of potential audience for broadcast networks are approximately 47 million across the country, 13 times and 8 times larger than that TVK and MX, 3.4 million and 5.6 million, respectively. These figures are numbers of households in Japan, Kanagawa Prefecture, and the Metropolis Tokyo as of

difficult for them to purchase such types of programs. To put it briefly, independent stations cannot sufficiently acquire domestic variety shows or dramas, let alone produce those programs by themselves.

Basic Cable Networks

When we discuss the programming of Japan's cable networks, it is necessary to keep in mind that there are few cable networks that offer general programming with a broad format, such as the USA Network or TNT in the U.S. In other words, most cable networks have specialized formats, emphasizing one subject matter.

As Table 19 and 20 clearly show, many cable networks devote almost all of their programming to one specific category, such as Super Channel to the drama category, Nihon Eiga Channel to the movie category, Space Shower to the music category, Sky A to the sports category, Discovery to the culture category, Nikkei CNBC to the news category, Cartoon Network to the children category, and the like. Accordingly, the HHI for each cable network is extremely high as shown in Table 21. We can see from their indices, 1.00, that many networks offer only a type of programming. Based on their observations, Litman et al. (1994) note that in the U.S. even narrowly targeted networks often consciously provide nonconforming programs to relieve the boredom and tedium from always having the same type of programming. This might not be applied to most of Japan's cable networks.

Nevertheless, the analysis of the program-type diversity attained by an individual basic cable network might be ineffective as far as each basic cable network is in principle bundled into a group called the basic tier. Rather, the program-type diversity

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of the tier should be evaluated aggregately.

LaLa TV, the network for women, has relatively diverse programming in comparison to other cable networks. Indeed, different from other cable networks providing one or two types of programming, LaLa TV offers eight types (see Table 19 and 20). At the same time, by analyzing the programming of the network in detail, we notice that many of them are imported programs. Whereas the network devotes 36 percent of their programming to the hobby/practical use category, most programs classified into the category are imports, such as those featuring Martha Stewart. All dramas that account for 26 percent of the programming, too, are from foreign markets. In addition, the network devotes 10 percent of the programming to an imported situation comedy, "Full House." From what has been discussed above, it is presumed that LaLa TV depends on foreign markets to achieve relatively diverse programming. Discovery Channel, Animal Planet, and History Channel provide a number of cultural programs, which are rarely offered by other cable networks, and most of the programs are imports.

As a whole, cable networks rely on foreign materials much heavier than do broadcast networks. One conceivable reason is that cable networks frequently offering imported programming are owned by foreign media and hence positioned as a part of vertical integration that their parent media develop on a world scale. For instance, while FOX offers only imports, many of them are programs whose copyrights are attributed to its affiliated program suppliers, Twentieth Century FOX or FOX Broadcasting. Another reason might be the unavailability of aftermarket programming in Japan, as discussed earlier. In the acquisition of television programs, the unavailability of domestic programs would likely boost the demand for foreign programs on the grounds that imports could be substitutes for domestics to fill schedules. Japan's off-network

programs are simply classified into the following two types: outdated dramas that were produced and owned by major film companies, or animation series. In terms of aftermarket programming, it appears that imported programs consisting of wider genres play a more important role in attaining program-type diversity than do domestic off-network programs.

Satellite Broadcasters

NHK offers programming services, BS1 and BS2, via broadcasting satellites, and, as of 2002, 11.4 million of the nearly 50 million television households in Japan officially subscribed to the two channels. Besides those stand-alone subscribers, cable subscribers can access the channels, which are in principle included in a basic cable package.

According to NHK (2002), BS1 features news and sports programs, while BS2 is dedicated to top entertainment, the arts, and culture in general. This differentiation in programming largely corresponds to the results shown in Table 19 and 20. BS1 has approximately two-thirds of their programming devoted to sports programs, followed by culture programs with 18.7 percent and news with 13 percent. On the other hand, the major categories on BS2 are children programs (32 percent), movies (26 percent), and culture programs (11 percent). It is possible that they devote more time to sports and children programs during summer than they do in other seasons.

Interestingly, we might be able to interpret these channels as a complementary for NHK's broadcast services (see Table 20). For instance, although NHK with the general channel offers news at a very frequent rate, that type of programming is not so high on both BS1 and BS2. Hobby/practical use programming, which is common on the

educational channel of NHK, is rarely offered by BS channels. On the other hand, BS channels often offer sports, movies, and children programs, all of which seldom appear on NHK's broadcast channels. In regard to this point, Nishino (1994) notes that NHK alone gives the audience a wider range of choice by avoiding providing similar types of programs or those sharing targeted audiences at the same time slots.

At the same time, taken as a whole, programming on BS1 and BS2 inherits something peculiar to NHK. They do not offer any programs perceived in a broad sense as lowbrow entertainment, such as frivolous variety shows or grotesque reality shows. The HHI for BS1, 0.49, is nearly equivalent to that for NHK general channel, and quite higher than that for BS2 or commercial broadcast networks (see Table 21). This is because their programming concentrates on sports programming at 66 percent. We can safely say that BS2, providing eight different types of programming, achieves considerable diverse programming as the index for the channel, 0.21, is slightly lower than that for ANB, a commercial broadcast network.

Premium Networks

Pretty much by definition, the sample three premium pay networks devote most of their programming to the movie category, "their historical raison d'etre" in Litman et. al.'s phrase (1994), as shown in Table 19 and 20. Accordingly the HHI for each premium network is high (see Table 21). While WOWOW, with 58 percent of its air time devoted to the category, has other types of programming split among children (31.3 percent), music (6 percent), and sports programs (4.7 percent), the remaining two networks, Star Channel and Eisei Gekijyo (Satellite Theater), heavily focus on movies in 90 to 100 percent range.

Interestingly, however, movies presented by those networks are extremely different: all movies offered by the former are imported ones, mainly from the U.S., but those by the latter are domestic movies. In this research, all movies are classified as the movie category altogether, regardless of countries of the origin. Nevertheless, given that viewers preferring Japanese movies are inherently not overlapped with those preferring American movies, it is likely that both networks are targeting apparently differentiated viewers.

Overall Diversity

We can see from Table 23 that the programming breakdown by all networks/broadcasters considerably differs from that by only over-the-air broadcast networks.

Among over-the-air broadcasters, the most highly presented program type during 6 p.m. and 11 p.m. is news (25.2 percent), followed by dramas (13.6 percent), hobby/practical use programs (11.9 percent), entertainment shows (9.7 percent), and children's programs (8.2 percent), as shown in the row next to "over-the-air networks" of Table 23. Top three and top five categories account for 50.7 percent and 68.6 percent of their programming, respectively.

The whole amount of news programming offered by NHK alone accounts for approximately 43 percent of all news provided by all over-the-air broadcasters (19 hours 10 minutes out of 44 hours 10 minutes). In addition, news is also the highest program type by over-the-air broadcast networks, accounting for just 20 percent. All commercial broadcasters but TX have a one-hour news program at 6 p.m. (see Table 13-17). Dramas are rarely offered by NHK (1.5 percent) but common among

	News	Sports	Drama	Movie	Ent /Vrty	Qz /Gm.	Comedy	Real Shw.	Music	Culture	Hby /PU	Edu.	Children	Other	
A. Commercial Broadcasters	25h	13h	23h	éh	17h	Sh		9h30m	Sh	Зh	9h		9h30m		125h
B. Public Broadcaster	19h10m	45m	45m	1h30m					2hl 5m	5h35m	11h50m		4h55m	3hl 5m	SOh
Over-the-air (A+B)	44h10m	13h45m	23h45m	7h30m	17h	Sh		9h30m	7hl 5m	8h35m	20h50m		14h25m	3h15m	175h
C. Independet Stations	11h15m	12h45m	3h	2h30m					3h45m	4hD5m	6h40m		Sh	lh	SOh
D. Basic Cable Networks	46h15m	152h30m	109h30m	77h15m	1h30m		7h	1h30m	75h	74h	34h30m		94h30m	1h30m	675h
E. Satellite Broadcasters	5h45m	17h		6h30m					1hl 5m	7h25m	1h		8h	3h05m	SOh
Over-the-air+Satellite (A+B+B)	49h55m	30h45m	23h45m	14h	17h	Sh		9h30m	8h30m	16h	21h50m		22h25m	6h20m	225h
F. Premium Networks		1h10m	15m	62h			lh		1h30m				8h50m	15m	75h
Non Over-the-air (C+D+E+P)	63h15m	183h25m	111h45m	148h15m	1h30m		8h	1h30m	81h30m	85h30m	42h10m		117h20m	ShSOm	850h
All Total (A+B+C+D+B+F)	107h25m	197h10m	135h30m	155h45m	18h30m	Sh	8h	11h	88h45m	94hD5m	63h		131h45m	9h05m	1025h
Total W/O Premium Networks	107h25m	196h	135h15m	93h45m	18h30m	Sh	7.h	11h	87h15m	94hD5m	63h		122h55m	8h50m	950h

Table 22: Programming Breakdowns by Groups of Networks/Broadcasters (Hours)

A(3) NTV, TBS, CX, ANB, TX

B(7). NHK General, NHK Educational

CO. TVK, MX

DC7) Super Channel, FOX, AXN, Channel NECO, Jidaigea Channel, Nihon Eige Channel, CSN Movie, Space Shower, Viewsic, MTV, Siy A, Gaora,

J Sky Sports 1, J Sky Sports 2, J Sky Sports 3, Golf Network, LaLa TV, Discovery, Animal Planet, History Channel, Igosyogi Channel,

CNN International, Nikkei CNBC, Family Gabijyo, Kids Station, Cartoon Network, Animax

E(3) NHK BSI, NHK BS2

F(3). WOWOW, Star Channel, Eisei Gelajyo

	News	Sports	Drema	Movie	Ent/Vrty	Qz/Gm.	Comedy	Real Shw.	Music	Culture	Hby /PU	Edu.	Children	Other	
A. Commercial Broadcasters	20.02	10.4	18.4	4.8	13.6	4.0		7.6	4.0	2.4	7.2		7.6		100.0
B. Public Broadcaster	38.3	1.5	15	3.0					4.5	11.2	23.7		9.8	6.5	100.0
Over-the-air (A+B)	252	79	13.6	43	<i>P.1</i>	2.9		5.4	4.1	49	119		8.2	19	100.0
C. Independet Stations	225	25.5	6.0	5.0					7.5	8.2	13.3		10.0	20	100.0
D. Basic Cable Networks	6.9	22.6	16.2	11.4	0.2		1.0	0.2	11.1	11.0	5.1		14.0	0.3	100.0
E. Satellite Broadcasters	11.5	34.0		13.0					2.5	14.8	2.0		16.0	6.2	100.0
Over-the-air+Satellite (A+B+E)	222	13.7	10.6	6.2	7.6	22		42	3.7	7.1	6.7		10.0	2.8	100.0
F. Premium Networks		1.6	03	82.7			1.3		2.0				11.8	0.3	100.0
Non Over-the-air(C+D+B+P)	7.4	21.6	13.2	17.4	0.2		0.0	0.2	9.6	10.1	5.0		13.8	0.7	100.0
All Total (A+B+C+D+E+P)	10.5	19.2	13.2	15.2	1.8	0.5	0.8	1.1	8.7	9.2	6.1		12.9	0.0	100.0
Total W/O Premium Metworks	113	20.6	14.2	66	19	0.5	0.7	1.2	9.2	6.6	9.9		12.9	0.0	100.0

Table 23: Programming Breakdowns by Groups of Networks/Broadcasters (Percentage)

A(5) NTV, TBS, CX, ANB, TX

B(Z). NHK General, NHK Educational C(Z). TVK, MX

D(77) Super Channel, FOX, AXN, Channel NECO, Jidaigsia Channel, Nihon Eige Channel, CSN Movie, Space Shower, Viewsic, MTV, Sity A, Gaore,

J Stry Sports 1, J Stry Sports 2, J Stry Sports 3, Oolf Network, LaLa TV, Discovery, Animal Planet, History Channel, Igosyogy Channel,

CNN International, Nikkei CNBC, Family Gekiyo, Kids Station, Cartoon Network, Animax

EQ. NHK BSI, NHK BS2 F(3). WOWOW, Star Channel, Eisei Gehijyo

commercial broadcast networks, ranked the second highest category (18.4 percent). The hobby/practical use programming is the only category provided by all over-the-air broadcasters whether commercial or public. The entertainment and variety show category is the third highest program type among commercial broadcast networks at 13.6 percent but not offered by NHK's two channels. Children's programming is offered by both commercial and public broadcast networks at roughly equal ratios, 7.6 and 9.8 percent, respectively. As a whole, all program-types but the comedy category and the education category are available on broadcasting.

On the other hand, if all networks and broadcasters are included, that is, in the case of cablecasting, the highest presentation is the sports category at 19.2 percent, which accounts for about 8 percent of the programming by broadcast networks (see the row next to "All Total" of Table 23). Sports programs are followed by movies (15.2 percent) and dramas (13.2 percent). Those three categories account for 47.6 percent of the programming offered by all networks, 3.1 percent lower than 50.7 percent occupied by the top three categories in over-the-air broadcasting networks. Then, children programs with 12.9 percent and news with 10.5 percent are the fourth and fifth highest categories.

Summed up together, top five categories account for 71 percent of the programming by all networks/broadcasters, slightly higher than 68.6 percent accounted for by the top five categories in broadcast networks. Consequently, judging from how much their programming is concentrated on the top five categories, both broadcasting and cablecasting indicate an almost equal concentration ratio. At the same time, however, it should be noted that the top five categories in cablecasting range from 19.2 percent to 10.5 percent whereas those in broadcasting range more broadly from 25.2

percent to 8.2 percent.

It is likely that overall diversity in cablecasting is greatly influenced by the programming of basic cable networks since they hold a majority in all networks/broadcasters offered by cablecasting. As a whole, the aggregate programming by cable networks is well-balanced. The highest category by basic cable networks is sports programming at 22.6 percent (see the row next to "Basic Cable Networks" in Table 23). Certainly, the percentage is correlated to the number of sports-oriented networks. Among 27 cable networks, six are specializing in sports programming. The sports category is followed by the drama category with 16.2 percent and the children category with 14 percent. This is because relatively many networks exhaustively devote their programming to dramas and children's programming.

We will now look at the vertical diversity available in the mixture of the programming of over-the-air broadcasting and that of satellite broadcast channels, the most popular combination pattern of video services in Japan. Some important changes are marked between the breakdown of programming by only over-the-air broadcasters and by adding two satellite broadcast services (Compare the row next to "Over-the-air" in Table 23 to that next to "Over-the-air plus Satellite"). Because of satellite broadcasting's concentration on sports programs, culture programs, and movies, fractions for those program types increase from 7.9, 4.3, and 4.9 percent to 13.7, 6.2, and 7.1 percent, respectively.

As a group, the three premium networks place strong emphasis on movies accounting for 82.7 percent of all their programming. Yet, the movie category is not highly represented on other network groups. As shown in Table 23, 13 percent on satellite broadcasters is ranked second only to 82.7 percent on premium networks and

only 4.3 percent is filled with movies in the programming of over-the-air networks. In this sense, we can safely say that premium networks have caved out a niche for themselves. The bottom two rows in Table 23 indicate how premium networks influence the entire program-type diversity, by comparing the programming of all networks with the programming not containing premium networks. By adding those premium networks, ratios occupied by any categories other than the movie category relatively decreases, as seen in the news category from 11.3 percent to 10.5 percent, the sports category from 20.6 percent to 19.2 percent, the drama category from 14.2 percent to 13.2 percent, and so on. Therefore, it seems reasonable to assume that Japan's premium networks certainly respond to the expectations of movie bugs, by increasing the relative amount of movies.

We will now take a look at the Herfindahl-Hirschman Index in order to analyze overall diversity (see Table 24). Note again that low values of the index denote less concentration of program types and hence greater program-type diversity. Examining intra-network/broadcaster concentration levels, we notice that the index for commercial broadcast networks is the lowest at 0.124. Whereas each commercial broadcaster's index ranges from 0.16 to 0.22, the indices for NHK, the public broadcaster, mark 0.44 for the general channel and 0.27 for the educational channel because of their concentration on particular categories, the news and the hobby/practical use category in this case. Accordingly, the index for all over-the-air broadcast networks slightly increases to 0.129 by adding the public broadcaster. Yet, we can safely say that Japanese broadcast networks offer moderately diverse programming. We can recognize this from the fact that the aggregate index for a group of seven channels for over-the-air broadcast networks, 0.129, is lower than that for a group of 34 non-over-the-air

A. Commercial Broadcast Networks	0.124
B. Public Broadcast Network	0.233
Over-the-air Broadcast Networks (A+B)	0.129
C. Independent Stations	0.162
D. Basic Cable Networks	0.142
E. Satellite Broadcasters	0 198
Over-the-air + Satellite (A+B+E)	0.118
F. Premium Networks	0.699
Non Over-the-atr Networks (C+D+E+F)	0.138
All Total (A+B+C+D+E+F)	0.125
Total W/O Premtum Networks	0.125

Table 24: Overall Diversity

A(5). NTV, TBS, CX, ANB, TX

B(2). NHK General, NHK Educational

C(2). TVK, MX

D(27). Super Channel, FOX, AXN, Channel NECO, Jidaigeki Channel, Nihon Eiga Channel, CSN Movie, Space Shower, Viewsic, MTV, Sky A, Gaora, J Sky Sports 1, J Sky Sports 2, J Sky Sports 3, Golf Network, LaLa TV, Discovery, Animal Planet, History Channel, Igosyogi Channel, CNN International, Nikkei CNBC, Family Gekiyo, Kids Station, Cartoon Network, Animax

E(2). NHK BS1, NHK BS2

F(3). WOWOW, Star Channel, Eisei Gekijyo

It is significant here to note that the results obtained correspond to the fact found by Litman et al. (1994): the indices for the individual networks are higher than the index for a group of networks. Even if each network has a relatively narrow range of program offerings, overall diversity is attained collectively as a group of networks through a process of counterprogramming and product differentiation. This tendency is more clearly shown in the programming of basic cable networks. Their individual indices range from 0.22 to 1.00, most of which indicate high concentration on particular program types. Yet, calculated collectively, the aggregate index for all basic cable networks is 0.142.

The overall index across all networks/broadcasters, 0.125, is slightly lower than

that for over-the-air broadcasting networks, 0.129. It is found from the results that the programming provided by a cablecaster is more diverse than that offered by only over-the-air broadcasters. This is an answer to research question 3: "Which one, broadcasting or cablecasting, offers more diverse programming?" Yet, the difference of both indices remains as a matter to be discussed further. If we consider the difference, 0.04, to be extremely small, it is no exaggeration to say that Japan's six over-the-air broadcast networks with seven channels offer almost as diverse programming as the 41 networks/broadcasters packed into cablecasting. From this viewpoint, we can say that there is still much validity in Straubhaar's assumption (1988, p.321), "With six broadcasting networks in Japan, there is considerable diversity in conventional broadcasting, and, therefore, cable may not also be perceived as adding significant diversity in video distribution."

The basic strategy for Japan's broadcast networks on their programming is counterprogramming. That is, when broadcast network A airs program-type 1, network B and C air program-type 2 and 3. After program-type 1, broadcast network A airs program-type 2, and, then, network B and C air program-type 3 and 1. According to the strategy, considerable program-type diversity is achieved among the broadcast networks. Table 25 illustrates a simplified programming model by Japan's broadcasters and cablecasters. We can see from the model that although more program-type options per hour are available on cablecasting (broadcast networks plus cable networks), broadcasting aggregately provides programming as diverse as does cablecasting during the schedule.

	6:00-7:00	7.00-8.00	8:00-9:00	9:00-10:00	10:00-11:00
Broadcast Network A	1	2	7	5	3
Broadcast Network B	1	3	8	.6	4
Broadcast Network C	1	4	2	7	5
Broadcast Network D	1	5	3	8	6
Broadcast Network E	2	6	4	2	7
Cable Network A	1				
Cable Network B	2				
Cable Network C	2				
Cable Network D	3				
Cable Network E	3				
Cable Network F	4				
Cable Network G	5				
Cable Network H	6				
Cable Network I	7				
Cable Network J		· · · · · · · ·	8		

Table 25: Programming Model on Japan's Broadcasting and Cablecasting

Figures indicate program type 1-8.

Additionally, some other important discoveries should be noted. As noted earlier in this thesis, it is very common among Japanese to add the two satellite broadcasting channels to over-the-air broadcasting. Because this combination pattern of video distribution services penetrated among Japanese, it is appropriate to gauge how diverse programming the combination provides. The index for the combination is 0.118, lower than the index for all networks/broadcasters included, 0.125. That is to say, by only adding two satellite broadcasting channels, viewers can be provided program types as diverse as that offered by cablecasting. It is likely that this is accurately reflected in the popularity of satellite broadcasting. It was noted previously that those satellite channels, whose programming is highly focused on sports programs, children programs, and movies, play a complementary role for NHK over-the-air broadcasting, which rarely provides those types of programming. To be precise, however, the satellite channels

supplement not only the programming of NHK but also that of commercial over-the-air broadcasting networks as well, especially with their high concentration on culture programs that are seldom offered by commercial broadcasters.

Finally, comparing the index across all networks to that not including premium networks, we notice both indices are equivalent (see the bottom two rows in Table 24). Whether or not to subscribe to premium networks does not affect program-type diversity, which is available as a whole.

CHAPTER 6: Conclusion and Discussion

This thesis has analyzed program-type diversity in Japan's video distribution industry. The program-type diversity has been discussed from two main perspectives: horizontal diversity and vertical diversity.

In terms of horizontal diversity, the number of different program-type options at a given hour, viewers subscribing to cable services have more options than do non-subscribers. It is quite natural to lead to this outcome since the presentation on cable television involves the retransmission of over-the-air broadcasting. In regard to this point, however, we need to pay our attention to the fact that in Japan the number of program-type options does not increase as much as the increase of the number of channels by cablecasting. Whereas broadcasting with seven channels provides five types of programming on average, cablecasting with 41 channels offers ten types.

Vertical diversity, the degree of program-type diversity offered by a single network/broadcaster over its entire schedule, clearly reflects its programming strategy. While the programming schedules of broadcast networks, independent stations, and satellite broadcasters consist of various program types and hence are well balanced, many cable networks are narrowly targeted and devote almost all of their programming to a specific category. Accordingly, the Herfindahl-Hirschman Index (HHI) for each cable network is high, indicating that less diverse programming is offered by an individual cable network compared to an individual broadcast network or independent station. At the same time, however, the programming of cable networks certainly meets the needs of audiences who desire to watch their favorite types of content anytime and as long as they want. Only cable networks can provide this advantage. In order to take

into account a characteristic feature of cable networks whose programming is offered as a bundle, it seems to be more appropriate to examine overall diversity, program-type diversity attained collectively by a group of cable networks, rather than vertical diversity by an individual cable network.

By comparing the overall diversity of broadcasting with that of cablecasting over their entire schedules, we notice that Japan's six over-the-air broadcast networks with seven channels offer almost as diverse programming as the 41 networks/broadcasters included into cablecasting. Accordingly, we can conclude that Japanese over-the-air broadcasting offers moderate program-type diversity nearly equivalent to cablecasting. Given that diverse programming would increase the likelihood of maximizing the satisfaction of a wider range of viewers, broadcast networks whose presentations are nearly as diverse as cablecasting can possibly fulfill the utility of audiences as much as cablecasting.

The point, which needs to be discussed, is the duplication of programming by cable networks. Assuming that five different types of programming are available on seven broadcast channels at a given hour, cable networks are expected to provide programming other than the five types and broaden the number of program choices. This is because there might be viewers whose content preferences are not fulfilled with the five broadcast programs. To the contrary, if a cable network offers programming quite similar to that by a broadcast network, the cable network, duplicating broadcast programming with much smaller budgets, hinders the diversification of programming. Given that cable television's formation and philosophical raison d'etre are to provide additional choices beyond the broadcasting realm as claimed by Litman (1992), what is required for cable networks is to provide programs differentiated from those by

broadcast networks.

Whether or not the differentiation by cable networks becomes successful, however, might be greatly determined by the programming of broadcast networks. On time frames when broadcast networks simultaneously air six or seven different types of programming, as observed in our research, other program types left for cable networks to provide are limited. In addition, it is more important that the other program types should be fully demanded by viewers and commercially feasible. This is possibly a main reason why networks specializing in a particular religion or race are not available on Japan's cablecasting although those channels, if any, play an important role in diversification of programming. Many Japanese have no religious faith, and Japan is basically regarded as a racially homogeneous nation. Judging from considerable overlap of program types between broadcast and cable networks, it seems that Japan's cable networks generally offer programming that has frequently appeared on broadcasting, rather than unique programming unavailable on broadcasting.

As our research shows, a group of broadcast networks in the aggregate provide more diverse programming in both the number of program types and the balance of those program types than a group of cable networks. Broadcast networks not only offer programming geared to the general mass audience, such as variety shows, on some time slots, but are also engaged in forms of narrowcasting that appeals to a specific demographic group, such as reality shows or programming concerning hobby/practical use, on other time slots. Although most cable networks specialize in a specific program type, there is concentration into some program types, namely sports programming, dramas, children's programming, and if premium networks are considered, movies, indicating a possibility of the duplication of programming among cable networks.

Presumably, this contributes to lower program-type diversity among them compared to broadcast networks. As well as the differentiation from broadcast networks on presentations as discussed earlier, further differentiation among cable networks is also required to secure more diverse programming.

At the same, however, we need to take into account that the utility of individual viewers, not that of total viewers, might be increased by the number of different options available within their favorite program types rather than by the total number of different program-type options. In this sense, the duplication of programming might not be a necessary evil. It is important to note that well-balanced, diverse programming would increase the likelihood of maximizing the utility of a wide range of viewers as a whole but does not necessarily lead to the utility of some individual viewers who demand the availability of more of their favorite types.

In addition, the compatibility of high quality programming and diverse programming needs to be considered. As discussed earlier, according to Owen and Wildman (1992), there is a trade-off between program diversity and program quality. Given that larger production budgets generally result in programming in which audiences find more attractive, the variability of quality raises the possibility that viewer welfare may decline as diversity increases. This assumption, however, would be effective under the competitive condition where the revenue of conventional broadcasters is substantially eroded by new networks offering differentiated content.

Importantly, the size of audience greatly influences production budgets and hence the quality of programming. As Waterman (1988, p.142) notes, "the larger (in size and economic resources) the potential audience base which a producer can reach, the greater the amount of economic resources the producer can profitably invest in a

program designed for that audience." Achieving economies of scale, broadcast networks produce relatively higher budget programs, leading to greater quality. In contrast, due to smaller market size, cable networks rarely offer relatively high quality programming. In terms of the contribution to program diversity, however, broadcast programming is often criticized as majority-taste programs, with which networks attempt to attract a large audience. On the other hand, cable programming, which aims for narrowly targeted audiences, promotes diverse programming. In this situation, it is likely that viewers have to choose between less preferred, higher quality programming or the most preferred, lower quality programming. Yet, which option can be more helpful to ensure viewer welfare in reality is not clear. We might encounter difficulties when attempting to explain audience appeal based only on program-type preferences.

We have analyzed program-type diversity in detail in this thesis. Nevertheless, the question of how the diversity influences the penetration of multichannel media remains unsettled. There is no conclusive proof that due to moderate program-type diversity by Japan's broadcasting, nearly equivalent to cablecasting, many Japanese do not feel the necessity to subscribe to multichannel media. If multichannel media guarantee the increase of the number of options in favorite program types and hence promote utility, as discussed above, many consumers might have clear incentives to subscribe to the media. The correlation between program-type diversity and the penetration of multichannel media is still open to discussion.

A further direction of this study could be to examine how the diversity at the present will vary as multichannel media become more penetrated into Japanese homes. It is possible that further audience fragmentation will occur and trigger more unique cable programming, differentiated from broadcast programming, to be provided. At the
same time, whether Japan's broadcast networks will eventually adopt to devote more of their programming schedules to mass appeal programming or continue to maintain considerable program-type diversity remains as a matter to be observed from now on.

Besides, it would be interesting to conduct cross-national research, comparing the program-type diversity, for example, on Japanese television to its American counterpart. As discussed earlier, in the U.S. there was a clear distinction between the programming of broadcast networks and that of cable networks: the former offered a few types of mass-oriented programs and the latter provided more narrowly targeted programming for viewers who were not satisfied with broadcasting. If this still holds true, it is inferred that Japan's broadcasting might possibly provide more diverse programming than U.S. broadcasting. According to Walker and Ferguson (1998), nevertheless, FOX's success and the proliferation of new broadcast networks targeting specific demographic groups possibly triggered the diversification of programming among U.S. broadcast networks. The authenticity of the assumption would be clarified by the research on current program-type diversity in U.S. broadcasting. In terms of cablecasting, however, it is possible that Americans compared to Japanese have a wider range of program types. What types of programming are missing on Japan's cablecasting and the primary reasons deserve our careful attention.

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BIBLIOGRAPHY

- Ahn, H. and Litman, B. R. (1997). Vertical Integration and Consumer Welfare in the Cable Industry. *Journal of Broadcasting and Electronic Media*, 41, Fall, p.453-477.
- Baldwin, T. F. and McVoy, D. S. (1988). *Cable Communication*. (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Baldwin, T. F., McVoy, D. S., and Steinfield, C. (1996). Convergence: Integrating Media, Information, and Communication. Thousand Oaks, CA: Sage Publications.
- Cabletelevision Advertising Bureau (2002). 2002 Cable TV Facts. Retrieved Feburary 25, 2003 from the World Wide Web: http://www.cabletvadbureau.com/
- Chan-Olmsted, S. M. (1991). A Structural Analysis of Market Competition in the U.S. TV Syndication Industry, 1981-1990. Journal of Media Economics, 4(3), Fall, p.9-28.
- Cooper-Chen, A. (1997). *Mass Communication in Japan*. Ames, IO: Iowa State University Press.
- DeJong, A. S. and Bates, B. J. (1991). Channel Diversity in Cable Television. Journal of Broadcasting and Electronic Media, 35(2), Spring, p.159-166.
- Dentsu. (2002). Jyoho media hakusyo 2002 [A Research for Information and Media Society 2002]. Tokyo, Japan: Dentsu.
- Dizard, W. P., Jr. (1997). Old Media New Media: Mass Communications in the Information Age. (2nd ed.). White Plains, NY: Longman.
- Dominick, J. R. and Pearce, M. C. (1976). Trends in Network Prime-time Programming, 1953-74. Journal of Communication, Winter, p.70-80.
- Eastman, S. T. (1993). *Broadcast/Cable Programming: Strategies and Practices*. (4th ed.). Belmont, CA: Wadsworth.

- Federal Communication Commission. (1993). Evaluation of the Financial Interest and Syndication Rules, 73 Rad. Reg 2d (P&F).
- Federal Communication Commission. (2000). Review of the Commission's Broadcast and Cable Equal Employment Opportunity Rules and Policies and Termination of the EEO Streaming Proceeding, 15 FCC Rcd 2329.
- Federal Communications Commission. (2002). FCC Grants Transfer of Telemundo Communications' TV Stations to NBC, Order FCC 02-113. Retrieved May 7, 2002 from the World Wide Web: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-02-113A1.txt
- Friedland, J. (1994, August 25). Watch This. Far Eastern Economic Review, 157, P. 34, 40.
- Furguson, D. A. and Perse, E. M. (1993). Media and Audience Influence on Channel Repertoire. Journal of Broadcasting and Electronic Media, 37(1), Winter, p. 31-47.
- Grant, A. E. (1994). The Promise Fulfilled? An Empirical Analysis of Program Diversity on Television. *Journal of Media Economics*, 7(1), 51-64.
- Hamaoka, Y. (2000). Yuryo hoso jyuyo no mirai [The Future of Demands for Pay Television]. In the Institute of National Association of Commercial Broadcasters (Eds.), *Dejitaru hoso sangyo no mirai* [The Future of the Digital Broadcasting Industry]. Tokyo, Japan: Toyo keizai shinposha.
- Hasegawa, K. (1998). Japan. In Albarran, A. B. and Chan-Olmsted, S. M. (Eds.), Global Media Economics: Commercialization, Concentration and Integration of World Media Market. Ames, IO: Iowa State University Press.
- Hashimoto, Y. (1998). Ukete kara mita dejitarulka to tacyanneruka [Digitization and Multichannel from Viewer's Perspective]. In Posts and Telecommunications Policy Institute (Eds.), 21 seki hoso no ronten [The 21st Century: Issues in Broadcasting]. Tokyo, Japan: Nikkan kogyo sinbunsha.

- Heeter, C. and Greenberg, B. S. (1988). *Cableviewing*. Norwood, NJ: Ablex Publishing Corporation.
- Higgins, J. M. and McClellan, S. (2002, February 25). Everything's in Play. Broadcasting and Cable, 132(8), p. 18-23.
- Ishikawa, S. and Muramatsu, Y. (1992). Quality Assensment of Broadcast Programming: Research Subjects for the Future. *Studies of Broadcasting*, 42.
- Ishikawa, S., Leggatt, T., Litman, B., Raboy, M., Rosengren, K. E., and Kambara, N. (1994). Diversity in Television Programming: Comparative Analysis of Five Countries. Studies of Broadcasting, 30, p.155-170.
- Ishimaru, K. (1994). CATV no genjyo to syoraisei [The Present Stage and Potential of CATV]. Retrieved March 23, 2002 from World Wide Web: http://kehi.yi-web.ne.jp/study/soturon(0).html
- Jupiter Telecommunications. (2003). J-COM Broadband Announces 2002 Subscriber Figure. Retrieved January 19, 2003 from World Wide Web: http://www.jcom.co.jp/corporate/en/news_index.php?code=42&la=en
- Kahaner, D. K. (1996). Asian Technology Information Program 96.103: Japan's Emerging Cable TV Industry. Retrieved January 1, 2003 from World Wide Web: http://www.atip.or.jp/public/atip.reports.96/atip96.103r.html
- Kambara, N. (1992). Study of the Diversity Indices Used for Programming Analysis. Studies of Broadcasting, March, p.195-206.
- Kamijo, N. (1998). Tacyanneruka to shicyosya kodo [Multichannel and Viewer's Behavior]. In Posts and Telecommunications Policy Institute (Eds.), 21 seki hoso no ronten [The 21st Century: Issues in Broadcasting]. Tokyo, Japan: Nikkan kogyo sinbunsha.

- Kudo, H. (1999). CS dejitaruhoso no mondai to kadai [The Issues and Challenges for CS Digital Broadcasting]. In Posts and Telecommunications Policy Institute (Eds.), 21 seki hoso no ronten [The 21st Century: Issues in Broadcasting]. Tokyo, Japan: Nikkan kogyo sinbunsha.
- Kurokawa, K. (2000). Sicyojikan no mirai [The Future of Viewing Time]. In the Institute of National Association of Commercial Broadcasters (Eds.), *Dejitaru hoso* sangyo no mirai [The Future of the Digital Broadcasting Industry]. Tokyo, Japan: Toyo keizai shinposha.
- Labaton, S. (2002, February 20). Appellate Court Eases Limitations for Media Giants. *The New York Times*. Retrieved February 24, 2002 from the World Wide Web: http://www.nytimes.com/2002/02/20/business/media/20BROA.html
- Lentz, C. S. (1996). The Fairness in Broadcasting Doctrine and the Constitution: Forced One-stop Shopping in the "Marketplace of Ideas." University of Illinois Law Review, 1, p.271-317.
- Levin, H. J. (1971). Program Duplication, Diversity and Effective Viewer Choices: Some Empirical Findings. *American Economic Review*, 61, p.81-88.
- Levin, H. J. (1980). Fact and Fantasy in Television Regulation: An Economic Study of Policy Alternatives. New York, NY: Russell Sage Foundation.
- Litman, B. R. (1979). The Television Networks, Competition and Program Diversity. Journal of Broadcasting, 23(4), Fall, p.393-409.
- Litman, B. R. (1992). Economic Diversity of Program Diversity: The Case for Diversity. Studies of Broadcasting, March, p.121-156.
- Litman, B. R., Hasegawa, K., Shrikhande, S., and Barbatsis, G. (1994). Measuring Diversity in U.S. Television Programming. *Studies of Broadcasting*, 30, p.131-153.
- Matsudaira, H., Nakamori, N., Sudo, H., and Hattori, T. (1992). Tamedia jyokyo wo yomu [Reading the Multimedia Environment]. Tokyo, Japan: Otsuki shoten.

- McQuail, D. (1992). Media Performance: Mass Communication and the Public Interest. Newbury Park, CA: Sage.
- Ministry of Public Management, Home Affairs, Posts and Telecommunications. (2002). Major Aspects of Japan's Broadcasting Policy. Retrieved February 21, 2003 from the World Wide Web: http://www.soumu.go.jp/joho tsusin/eng/Statistics/0105 1.html

Ministry of Posts and Telecommunications. (2001). Resources. Retrieved February 10, 2002 from the World Wide Web: http://www.yusei.go.jp/eng/Resources/top.html

- Mizuho Corporate Bank. (2002). Tamedia jidai no hoso sangyo no seicyo senryaku [The Strategy for Growth of the Broadcasting Industry in Multimedia Era]. Retrieved December 20, 2002 from the World Wide Web: http://www.mizuhocbk.co.jp/pdf/industry/1002_101.pdf
- Mori, T. (2000). Dejitaruka to hoso sangyo no henyou [Digitization and Transfiguration of the Broadcasting Industry]. In the Institute of National Association of Commercial Broadcasters (Eds.), *Dejitaru hoso sangyo no mirai* [The Future of the Digital Broadcasting Industry]. Tokyo, Japan: Toyo keizai shinposha.
- Nagaya, T. (1998). Tamedia jidai no sicyosya kodo [Viewer's Behavior in the Multichannel Era]. In Posts and Telecommunications Policy Institute (Eds.), 21 seki hoso no ronten [The 21st Century: Issues in Broadcasting]. Tokyo, Japan: Nikkan kogyo sinbunsha.
- Nakako, K. (2002). Media bijinesu: Syosya no shinsenryaku [Media Business: New Strategies of Winners]. Tokyo, Japan: Nikkei BP.
- Napoli, P. M. (2001). Foundations of Communications Policy: Principles and Process in the Regulation of Electronic Media. Cresskill, NJ: Hampton Press.
- National Cable and Telecommunications Association. (2003). Industry Statistics. Retrieve February 24, 2003 from World Wide Web: http://www.ncta.com/industry_overview/indStat.cfm?indOverviewID=2

- NHK. (2001a). *NHK Data Book: World Broadcasting 2001*. Tokyo, Japan: NHK Broadcasting Culture Research Institute.
- NHK. (2001b). National Use Survey 2000 Report. Tokyo, Japan: NHK Broadcasting Culture Research Institute.
- NHK (2002). NHK Annual Report 2002. Retrieve October 13, 2002 from World Wide Web: http://www.nhk.or.jp/pr/keiei/annualreport_e/index.htm
- Nishi, T. (1997). Hoso biggguban: Sofuto bijinesu daikyosojidai no yoake. [Broadcasting Big Bang: The Beginning of Harsh Competition in Software Business]. Tokyo, Japan: Nikkan kogyosha.
- Nishioka, Y. (2000). Bangumi ryutsu shijyo [Television Programming Aftermarket]. In Sugaya, M. and Nakamura, K. (Eds.), *Hoso media no keizaigaku* [Economics of Broadcasting Media]. Tokyo, Japan: Chuo keizaisha.
- Noll, R. G., Peck, M. J., and McGowan, J. J. (1973). Economic Aspects of Television Regulation. Washington, DC: Brookings Institution.
- Noam, E. M. (1987). A Public and Private-choice Model of Broadcasting. *Public Choice*, 55, P.163-187.
- Nozaki, S. (1998). Terebi no jyukusei [The Maturation of TV]. In Posts and Telecommunications Policy Institute (Eds.), 21 seki hoso no ronten [The 21st Century: Issues in Broadcasting]. Tokyo, Japan: Nikkan kogyo sinbunsha.

NTV. (2002). Personal Interview by Email. October 23, 2002.

Okamura, R. (1993). Terebi no ashita [TV's Future]. Tokyo, Japan: Iwanami shoten.

- Owen, B. M. (1978). The Economic View of Programming. Journal of Communication, 28(2), p.43-50.
- Owen, B. M., Beebe, J. H., and Manning, W. G., Jr. (1974). *Television Economics*. Lexington, MA: Lexington Books.

- Owen, B. M. and Wildman, S. S. (1992). Video Economics. Cambridge, MA: Harvard University Press.
- Persons, P. R. and Frieden, R. M. (1998). The Cable and Satellite Television Industry. Needham Heights, MA: Allyn and Bacon.
- Romano, A. (2002, December 30). Cable's Big Piece of the Pie. Broadcast & Cable, 132, p. 8.
- Sawa, T. (1994, August 29). Japan may nix multimedia. Japan Times, 18.
- Shimbo, J. (2000). *TV media no kobo* [The Rise and Fall of TV Media]. Tokyo, Japan: Shueisha.
- Sky PerfecTV. (2001). The Broadcasting Industry in Japan. Retrieved March 31, 2002 from World Wide Web: http://www.skyperfectv.co.jp/skycom/e/ir/ar2001e/ar2001_08.pdf
- Sky PerfecTV. (2003). Press Release. Retrieved February 20, 2003 from World Wide Web: http://www.skyperfectv.co.jp/skycom/frame/fr_new_14.html
- Statistics Bureau and Statistics Center (2001a). Kakei sosetai syuukei [Household Finances]. Retrieved January 5, 2003 from World Wide Web: http://www.stat.go.jp/data/sousetai/2000n/index.htm
- Statistics Bureau and Statistics Center (2001b). Jinko to setai [Population and Households]. Retrieved March 30, 2002 from World Wide Web: http://www.stat.go.jp/data/nenkan/02.htm
- Steiner, P. O. (1952). Program Patterns and Preferences and the Workability of Competition in Radio Broadcasting. *Quarterly Journal of Economics*. May, p.194-223.
- Stewart, H. (1995). Foreign Companies—Vital to Cable Television's Growth. Journal of Japanese Trade and Industry, 14(2), March/April, p.44-46

- Straubhaar, J. D. (1988). International Comparison of Cable Television Systems. In Baldwin, T. F. and McVoy, D. S. (Eds.), *Cable Communication*. (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Stronach, B. (1992). Popular Culture in Japan and America. Tokyo, Japan: Seibido.
- Sugaya, M. (1997). Amerika no media sangyouseisaku. [The Policy for the U.S. Media Industry]. Tokyo, Japan: Chuo keizaisha.
- Sugaya, M. (2000). Hoso media to shijyo no tokusitsu [The Characteristics of Broadcasting Media and the Market]. In Sugaya, M. and Nakamura, K. (Eds.), *Hoso* media no keizaigaku [Economics of Broadcasting Media]. Tokyo, Japan: Chuo keizaisha.
- Sunagawa, H. (2000). Bangumi ryutsu to hoso cyosakuken. [Programming Aftermarket and Copyrights]. Hoso media no keizaigaku [Economics of Broadcasting Media]. Tokyo, Japan: Chuo keizaisha.
- Tadokoro, I. (1978). Japan. In Lent, J. A. (Ed.), Broadcasting in Asia and the Pacific: A Continental Survey of Radio and Television. Philadelphia, PA: Temple University Press.
- Television Digest (2001). Television & Cable Factbook (69): 2001 Cable. Washington D.C.: Author
- Tokinoya, H. (1996). Japan. In Wells, A. (Ed.), World Broadcasting: A Comparative View. Norwood, NJ: Ablex Publishing Co.
- Turner, G. (2001). Genre, Format, and 'Live' Television. In Creeber, G. (Ed.), *The Television Genre Book*. London, the UK: British Film Institute.
- U.S. Census Bureau. (2001a). Section 24: Information and Communications. Statistical Abstract of The United States: 2001. Retrieved February 10, 2002 from the World Wide Web: http://www.census.gov/prod/2002pubs/01statab/inforcomm.pdf

- U.S. Census Bureau. (2001b). U.S. Statistics in Brief: Income. Retrieved January 5, 2003 from the World Wide Web: http://www.census.gov/statab/www/part3.html#income
- Wakshlag, J., Agostino, D., Terry, H., Driscoll, P., and Ramsey, B. (1983). Television News Viewing and Network Affiliation Change. *Journal of Broadcasting*, 27(1), p.53-68.
- Wakshlag, J. and Adams, W. (1985). Trends in Program Variety and the Prime Time Access Rule. *Journal of Broadcasting and Electronic Media*, Winter, P.23-24.
- Walker, J. R. and Ferguson, D. A. (1998). *The Broadcast Television Industry*. Needham Heights, MA: Allyn and Bacon.
- Waterman, D. (1988). World Television Trade: The Economic Effects of Privatization and New Technology. *Telecommunications Policy*, June, p.141-151.
- Waterman, D. (1992). "Narrowcasting" and "Broadcasting" on Nonbroadcast Media: A Program Choice Model. Communication Research, 19(1), 3-28.
- Waterman, D. and Grant, A. (1991). Cable Television as an Aftermarket. Journal of Broadcasting and Electronic Media, 35(2), Spring, p.179-188.
- Webster, J. G. and Wakshlag, J. J. (1983). A Theory of Program Choice. Communication Research, 10(4), October, 430-447.
- Webster, J. G. and Phalen, F. P. (1997). *The Mass Audience: Rediscovering the Dominant Model*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Webster, J. G., Phalen, P. F., and Lichty, L. W. (2000). *Rating Analysis: The Theory and Practice of Audience Research*. (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Weinberg, J. (1991). Broadcasting and the Administrative Process in Japan and the United States. *Buffalo Law Review*, 39(3), p.615-735.

Weinberg, N. (1995, November 6). Cable Come to Fuchu. Forbes, 156, p.45-46.

- Wildman, S. S. and Owen, B. M. (1985). Program Competition, Diversity, and Multichannel Bundling in the New Video Industry. In Noam, E. M. (Ed.), Video Media Competition: Regulation, Economics, and Technology. New York, NY: Columbia University Press.
- Wildman, S. S. and Siwek, S. E. (1988). International Trade in Films and Television Programs. Cambridge, MA: Ballinger.
- Witter, W. (1996, July 9). Millions in Japan Await Murdoch's Satellite TV. *The Washington Times*, A1.
- WOWOW. (2003). Press Release. Retrieved January 19, 2003 from World Wide Web: http://www.wowow.co.jp/stock/pdf/kanyuu030106.pdf
- Yoshida, N. (2000). Tacyanneruka to kokoku hoso [Multichannel and Commercial Broadcasting]. In Sugaya, M. and Nakamura, K. (Eds.), *Hoso media no keizaigaku* [Economics of Broadcasting Media]. Tokyo, Japan: Chuo keizaisha.
- Youn, S. (1993). The Development of Multi-channel TV and TV News Viewing: A Cross-sectional Analysis of TV News Viewing and News Learning in a Broadcast-channel only and Multi-channel Situation. Ph.D. Diss. Michigan State University.
- Yuguchi, K. and Yamauchi, H. (2000). Hoso media shijyo no jyuyo bunseki [Analysis of Demands for the Broadcasting Media Market]. In Sugaya, M. and Nakamura, K. (Eds.), *Hoso media no keizaigaku* [Economics of Broadcasting Media]. Tokyo, Japan: Chuo keizaisha.

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