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Anti-competition issues between Taiwan's cable TV system operators and channel providers—new rules of engagement?

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Abstract

Taiwan's cable TV system operators have formed multiple system operators (MSOs), while channel providers have formed multiple channel providers (MCPs). Through horizontal and vertical integration, the mergers have formidable market bargaining power in the channel-licensing market. The Fair Trade Act does not prevent unfair channel licensing trade in Taiwan. This paper recommends an open channel-licensing mechanism, which can be used to remedy the “concerted purchasing actions” of the MSOs and the “concerted selling actions” of the MCPs. © 2001 Elsevier Science Ltd. All rights reserved.

Keywords: Anti-competition; Cable TV; System operators; Channel providers; Fair trade; Vertical concentration; Horizontal concentration

1. Introduction

Two separate but related markets comprise the video programming market: (a) the purchase of video programming from programming suppliers, and (b) the sale of multichannel video programming to households.

The market for the delivery of video programming to households is characterized as one with a high entry barrier. The reasons may include: (a) the high capital investment required to build a cable distribution system or other multichannel video programming distribution (MVPD) systems such as Direct Broadcast Satellite (DBS), Multichannel Multipoint Distribution Service (MMDS), etc.; (b) the government awarding a limited number of licensing permits. Consequently, the number of cable systems together with other MVPD systems that a consumer can choose from is generally very limited, and (c) the channel capacity of a MVPD system is smaller than all the video programming channels available. The safeguarding of consumers' interests in accessing diversified video programming that they favor, and being charged reasonable fees, requires government regulation.

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The two competitive issues that cause most concern in any MVPD market stem from the horizontal concentration of the MVPD operators as well as the vertical integration between the MVPD operators and the video programming suppliers. Much research effort and regulatory measures have focused on these subjects. Over the years as the MVPD markets evolved, regulations have been revised.

This paper first investigates the respective regulatory measures taken by different countries within the specific competitive situations of their respective MVPD markets. Next, the paper describes the MVPD market in Taiwan, the anti-competitive activities observed, and the current regulatory framework, which is insufficient to effectively address the problems.

Since the competitive situation of the MVPD market as well as the social/political environments and the judicial systems are very different in different countries, the problems faced in each country are different. Obviously, the solutions to such problems cannot be identical. However, the same general principles should apply. The authors studied the regulating principles with respect to the MVPD market by the UK and US regulators, took into consideration the specific problems in Taiwan, and have produced a regulatory recommendation to solve Taiwan's anti-competitive problems in the cable market.

2. Literature review

The literature below summarizes the bundling or horizontal/vertical concentration status of the United Kingdom, the United States and Korea. Such situations resulted in different anti-competitive issues and impaired consumers' interests to different extents. Different governments have taken different approaches to handle their specific problems.

2.1. *US FCC study*

2.1.1. *Horizontal concentration*

FCC Seventh Annual Report (FCC, 2001) revealed that of the 33,000 cable communities throughout the US, only 1% has been certified by the FCC as having effective competition as a result of consumers having a choice of more than one MVPD operator.

For the past several years, the US cable operators have engaged in a regional strategy called "clustering." Many of the largest Multiple System Operators (MSOs) have concentrated their operations by acquiring cable systems in regions where the MSO already has a significant presence, while giving up smaller holdings scattered across the country. This strategy is accomplished through purchases and sales of cable systems, or by "swapping" cable systems among MSOs. One reason for clustering has been to expand the contiguous geographic area of a cable's service domain area. However, the "swapping" approach suggests that the MSOs are each focusing their market power in different metropolitan areas. This is a form of regional horizontal concentration, which leads to less competition in those markets. Such regional market power could give the said clustered MSO, advantages in signing exclusive licensing rights for regional programming. Besides, the FCC also reported that cable operators that were part of a cluster had, on average, higher monthly rates than operators that were not part of a cluster. These higher rates are further evidence that regional concentration has an anti-competitive effect.

There are also concerns about the anti-competitive effects of the horizontal concentration of ownership on the purchase of programming. BellSouth contends that programmers offer steep volume discounts exclusively to large MSOs. EchoStar argues that the significant bargaining power of large MSOs in obtaining programming presents a barrier to smaller cable system operators.

The FCC's revised cable horizontal ownership rules went into effect on May 19, 2000. The new rules prohibited any person from having an interest in cable systems that, in the aggregate of other MVPD subscribers, reaches more than 30% of the total MVPD subscribers (as opposed to the total number of cable homes passed or the total number of cable subscribers) in the US. The purpose of this rule is to limit the video programming purchasing power of cable MSOs given the fact that the number of DBS subscribers is growing.

The top four purchasers of video programming in the US in 2000 were AT&T (19.07%), Time Warner (14.92%), DirecTV (10.28%) and Comcast (8.43%). Although, shares of the top four largest MSOs have declined slightly since 1999, shares of MSOs ranked 5th to 10th increased between 1999 and 2000. Overall market share of the largest top 10 MSOs increased from 74.95% in 1999 to 83.90% in 2000. Even though the market share numbers indicate that horizontal concentration is increasing, the FCC has not found it necessary to take regulatory measures to curb the trend.

2.1.2. Vertical integration

Vertical integration occurs where a video-programming distributor has an ownership interest in a video programming supplier or vice versa. In 2000, there were 281 satellite-delivered national programming networks in the US. Of those networks, 99 (representing 35%) were vertically integrated with at least one cable MSO. Currently, nine of the top 20 video programming networks ranked by subscribership are vertically integrated with a cable MSO; and 11 out of the top 20 video programming networks ranked by prime time ratings are vertically integrated with cable MSOs. However, this does not seem to have caused serious concern because of the FCC rules.

The FCC has adopted rules on competitive access to cable programming, which prohibit unfair and discriminatory practices by vertically integrated cable operators. The rules seek to promote competition and diversity in the multichannel video programming market by preventing vertically integrated programming suppliers from favoring affiliated video distributors over unaffiliated MVPDs in the sale of satellite-delivered programming. The rules also prohibit vertically integrated satellite programming suppliers from discriminating in price, terms, and conditions of sale or delivery of satellite-delivered programming to cable operators and other MVPDs. In addition, cable operators are generally prohibited from entering into exclusive distribution arrangements with affiliated programming vendors.

2.2. UK Oftel study

Oftel studied bundling in the UK pay television market (Oftel, 1997). Oftel defined "bundling" as the tying of one service or product to the supply of others, while "full line forcing" is a form of bundling where, in order to obtain an individual product or service, the full range of products or

services must be purchased even though there might be demand for only one product or service within the bundle.

2.2.1. The bundling of basic with premium channels

BSkyB made its premium channels available only as part of a bundled package with basic channels; it might be a barrier to entry for a competing provider of a package of basic channels. One possible remedy might be an obligation on BSkyB to make its premium programming available to providers of stand-alone basic channel packages on fair, reasonable and non-discriminatory terms. The wholesale price charged by BSkyB to its retail competitors should be equal to the internal transfer charge to its own retail arm. Another remedy might be to prohibit bundling of premium and basic channels. Oftel concluded that the appropriateness of obligations in this case would need to be reviewed periodically.

2.2.2. Minimum carriage obligation

Many contracts between premium channel providers obligate cable operators to guarantee that channels will be made available to a minimum percentage of their subscriber base. Normally these are set at between 80% and 100% of subscribers. This practice reflects the need on the part of channel providers to recover their fixed level of costs. However, there is also risk on the part of cable operators because they have to allocate transmission capacity for each premium channel they carry. There is potential exclusionary effect on new entrants, in that a cable operator would be reluctant to take additional premium channels because the subscribership on the existing premium channels might be diluted. Oftel did not find it necessary to prohibit minimum carriage obligations across the board, but rather took a case-by-case approach.

2.2.3. Deep discounting

Oftel addressed the issue of “deep discounting” which refers to the retailing of the second and subsequent premium channels at significantly lower prices than the first premium channel, a practice resulting from the pricing strategy set up by the premium channel providers in the cable TV retail market. A cable subscriber may prefer a discounted premium channel to an independent premium channel due to price differences.

The above case may have anti-competitive effects on a competing provider of a single premium channel if the bundler leverages the market power of a popular channel. The following hypothetical example illustrates such effects:

Assume that a MCP has two channels: a popular sports channel and an entertainment channel. Assume there exists another competing entertainment channel with similar content and licensing costing \$3/Mo per subscriber. Each of the two entertainment channels could be retailed at \$3.9/Mo per subscriber if the markup is 30%. The sports channel could be reasonably retailed at \$15/Mo per subscriber. Under this situation, the MCP could have a revenue of \$18.9/Mo per subscriber, if both of its channels are subscribed. As the MCP owns the highly rated sports channel, it has the ability to set its prices independently of competitors or customers. Therefore, the MCP could set the retail price of this sports channel at \$16/Mo per subscriber and discount the price of its entertainment channel at \$3/Mo per subscriber for subscribers who have already purchased the sports channel. The total revenue of the MCP becomes \$19/Mo per subscriber.

Consequently, the independent entertainment channel has no ground for competition since the MCP's entertainment channel is already retailed at cost.

Oftel views this as a case worthy of further investigation, especially when the key sports programming rights comes up for renewal.

2.3. Waterman and Weiss study

Waterman and Weiss (1996) studied the effects of vertical integration ties between U S cable MSOs and cable programming networks in 1993. Their subjects were the 1646 cable television systems and the four movie-based pay networks. Using a structural model to study whether local cable systems carry any of the four pay networks, their research suggested that majority-ownership relationships do influence cable systems to “favor” affiliated pay networks, both with respect to carriage decisions and overall marketing behavior. This means that unaffiliated pay networks are at a disadvantage in competing against pay networks affiliated with MSOs.

The authors also mentioned a similar conflict of vertical integration with respect to the production of information by local telephone companies. People are concerned that a monopolistic local carrier with its own information content may hinder consumers' access to other information sources.

There is, however, a major difference between the network architectures of the cable TV network and the telephone network. The former is a broadcasting type of network, which provides the same number of channels (maybe between 70–80) to all its subscribers. The latter, however, is a star topology network, which can provide different information via dedicated access circuits to different subscribers. Since a cable TV network has a fixed number of channels, information providers have to compete for limited channel capacities. If a system operator provisions its own information content, it will reduce other information providers' chances of getting channel capacity. However, since the telephone network can accommodate unlimited information via its central-office switching scheme, if it engages in its own information provision it would not affect other information providers from reaching customers. The central issue of concern is to prevent the telephone companies from cross-subsidizing their own content business, a practice that puts other content providers in a disadvantageous position.

2.4. Bae and Baldwin study

Bae and Baldwin (1998) recommended some government policies for Korean cable TV startup. They see benefits in a vertical integration of program providers and cable system operators because it presents a greater opportunity to coordinate program providers' and system operators' interests and resources. They also see that there are safeguards against any negative effects of such vertical integration. One such safeguard exists when there are multiple firms involved, because each system operator will want to license many or even all of the programs. This argument may be true when the cable industry is at the startup stage. However, once this stage is past, when there are more programs than that any cable system can accommodate, the favoritism cable systems tend to give their affiliate program providers becomes detrimental to sustaining development of the cable TV industry. As a second safeguard, the authors suggest setting limits on cross ownership. Limiting the maximum number of program providers with which a system operator

can affiliate merely restrains the problem, but does not resolve it since system operators might still give preferential treatment to their now reduced number of affiliates.

Bae and Baldwin also see benefits in the horizontal integration of system operators into multiple system operators (MSOs). Resulting cost savings mainly come from the effects of economies of scale in engineering, administration, marketing, and advertising, etc. However, the formidable bargaining power of MSOs on programming licensing fees needs to be safeguarded.

2.5. Cowie and Yarrow study

Cowie and Yarrow (2001) reported the 1996 investigation by the Office of Fair Trading (OFT) of the UK on the licensing fee structure of the UK's dominant programming material supplier, BSkyB, to cable operators. One major issue arises from the fact that BSkyB is both a wholesaler and retailer of programs, i.e., BSkyB wholesales programs to cable operators, and BSkyB also retails programs to consumers through its direct-to-home business. BSkyB's vertical integration of program content and delivery businesses raised anti-competition concerns against cable operators. The OFT review concluded that the BSkyB's open and uniform level of prices was not anti-competitive against cable operators at that time.

BSkyB gave cable operators volume discounts based upon their respective number of subscribers. For cable operators with between 100,000 and 149,999 subscribers, there was a 1% reduction. Where subscriber numbers were between 150,000 and 249,999, the reduction was 2%; while for subscriber numbers of more than 250,000, the cable operator received a reduction of 3%. The OFT review found the magnitude of the above volume discount modest in comparison with other discount/penalties in the rate card, and concluded that this volume discount raised no major competition issues.

The above studies indicate that there exist different concerns with horizontal and vertical integration between cable systems and programming providers. In different countries levels of integration may be different, and the anti-competitive impacts of their effects may also vary. In certain cases, government intervention is necessary, while in other cases, periodical review and monitoring are sufficient. To minimize the negative effects of such horizontal and vertical integration, government policies, such as separation of accounting and no subsidy across affiliates, are common measures. Most important, a strict enforcement of the Fair Trade Act is essential.

3. The status quo of Taiwan's cable TV market

Taiwan's cable TV market consists of 68 cable system companies that operate cable TV transmission facilities and head-end equipment. There are over 170 channel providers, which are either commissioned agents of foreign channels such as HBO, Discovery, ESPN, CNN, etc., or local producers of TV programs in news, sports, religion, politics, etc. They are the "up stream" of the cable TV supply chain. A channel provider licenses channel content to cable system operators for distribution to cable TV subscribers. Therefore, cable TV system operators are the "down stream" of the cable TV supply chain.

Taiwan's cable TV service is under the jurisdiction of the Government Information Office (GIO) and governed by the Cable TV Act.¹ The island-wide cable TV market is divided into 51 operating zones. In order to meet the high demand for cable TV system operator licenses, the Cable TV Review Committee has awarded a maximum of five licenses in most zones. The cable TV system's head-end equipment and transmission facility must meet the high quality standards prescribed by the Directory General of Telecommunications (DGT). Equipment costs and cable construction costs require substantial financial investment from cable TV system operators.

Assume that the 4.5 million households in Taiwan are distributed among the 51 cable TV zones; fewer than 100,000 households would exist in each zone. If there are five system operators competing in each zone, then each operator can get an average of 20,000 household subscribers, assuming all households subscribe to cable TV. Due to the high capital investment and low number of potential customers, there just do not exist enough subscribers to sustain five cable TV systems in one zone. It comes as no surprise that a large portion of originally licensed system operators have merged, been acquired, or been forced out of business. This can be shown by the fact that the number of licensed system operators has been reduced from 156 to 68 over the past four years. As a result, the existing Taiwan cable TV market is left with no more than one or two system operators in each of the 51 operating zones.

Taiwan's Cable TV Act has limited the maximum permissible holding of shares of a single cable TV system and the maximum permissible control over cable TV systems by any person or organization. Article 19 of the Taiwan Cable TV Act stipulates that no single individual can own more than 10% of the total issued shares of a cable system company. The sum of shares owned by an investor, his/her spouse, his/her relatives of lineal or collateral relationship, or crossly owned enterprises cannot exceed 20% of the total issued shares of a single cable system company. Article 21 states that the sum of the cable TV subscribers in all the controlled cable systems owned by one company should not exceed one-third of the total number of cable TV subscribers in Taiwan. Article 21 also prohibits any enterprise together with its affiliated enterprises to: (1) control more than half of the number of cable systems in any one zone (This condition does not apply if there is only one cable system in a certain zone.); or (2) control more than one-third of the total number of cable systems in Taiwan.

Even with the above precautionary regulations, Taiwan's cable TV systems have formed two conglomerate MSOs, the Hosing Group and the Eastern Broadcasting Group. Each of the two MSOs affiliates with about one-third of the total number of cable systems in Taiwan. The remaining systems are being affiliated with two other emerging new MSOs.

Over recent years, the Hosing Group and the Eastern Broadcasting Group have each wholly or partially controlled 20–30 cable systems at the 51 cable TV zones in Taiwan. Their large subscriber bases have given them substantial bargaining power during channel licensing negotiations with channel providers. Independent channel providers were at risk of losing one-third or even two-thirds of Taiwan cable TV systems if they did not accept prices unilaterally set by the MSOs. Given the advantages, MSOs have over independent system operators in channel licensing negotiations, independent system operators decided, in turn, to form alliances themselves.

¹Taiwan Cable TV Act, <http://www.gio.gov.tw/info/radiotv/law/law4f.htm>.

However, the Hosing Group and the Eastern Broadcasting Group also established conglomerate MCPs (Multiple Channel Providers) to take advantage of increased channel selling power. The independent cable system operators are under pressure by the MCPs to license all their channels as a whole package at prices set by MCPs unilaterally. They lose the right to license only selected popular channels. It is little wonder that most MCPs have all their channels licensed by a majority of Taiwan cable systems. Cable system operators who refuse to license the whole package may: (1) suffer loss of all the MCP's channels; (2) pay unreasonably high licensing charges for only the selected channels; or (3) quit the business before eventually being driven out.

In summary, Taiwan cable MSOs have dominant market power in channel licensing; this can be characterized as a “concerted purchasing action.” Additionally, the MCPs also have dominant market power in channel licensing; this can be characterized as a “concerted selling action.” Since these concerted actions have substantial bargaining power, horizontal and vertical integration by the Hosing Group and the Eastern Broadcasting Group has exerted oligopolistic influence on Taiwan's cable TV business. Such cable TV infrastructure exists in Taiwan because there is no regulation banning cross ownership of the channel providing business and the cable system operations business.

4. Anti-competition issues arising from horizontal and vertical integration

Since the beginning of 2000, many cable TV channels have been displaced or even removed from cable TV systems in Taiwan. Some cable operators in Taipei have moved HBO and other channels to noisier high bands beyond channel 75 which inevitably results in poor picture quality. In the southern and central part of Taiwan, over 150,000 cable TV subscribers no longer receive HBO and Cinemax. In the southern part of Kaohsiung City, three local cable TV systems lost almost one-third of their channels because they could not accept the channel licensing contracts offered by three major channel providers: Howei, Muchiao, and Eastern Broadcasting Cooperation.

The reasons behind the conflicts between Taiwan's cable TV system operators and channel providers are summarized below. In the northern part of Taiwan, independent channel providers are pressured by cable TV multiple system operators (MSOs) to renew channel-licensing contracts at unacceptably low prices. As further coercion, Cable TV MSOs have moved the independent agents' channels into noisier high bands.

In the southern part of Taiwan, independently owned cable system operators were pressured by multiple channel providers (MCPs) to buy both high-rated and less popular channels as package deals. Some independent cable operators refused to accept the price increases hidden in the package deals. Thus, their systems lost all the channels controlled by those MCPs.

These incidences indicate the conflicts between Taiwan cable system operators and channel providers, which occur annually during channel-license contract renewal time. The sources of the conflicts stem from the “concerted selling actions” by the MCPs and the “concerted purchasing actions” by the MSOs.

The channel-licensing transactions between Taiwan's cable operators and channel providers have negative impacts on the Taiwan cable TV business. The MSOs have market power to set low channel purchasing prices unilaterally that can drive independent channels out of business. This

unchallenged bargaining power has been pushing independent channel owners to surrender their agency rights to MCP and MSO conglomerates. As a result, the MCPs are becoming bigger and stronger each year.

In Taiwan, cable TV system operation is by mandate a regulated business, and the Cable TV System Licensing and Monitoring Committee is the governing body for deciding important cable TV competition related matters. This committee has the authority to mandate, at the national level, the price cap for cable TV subscription fees. The local governments of the 51 zones each have the authority to further adjust down the subscription fee cap in their respective zones. For the year 2000, the national price cap was set at \$600NT per month (about \$18 US). The purpose of setting a subscription fee cap was to protect the consumers from being overcharged. However, the authority failed to specify how many channels and exactly what channels should be offered to consumers with this price cap. This is because the channel-licensing charges that the system operators pay to channel providers are not subject to regulation. How can the government ensure that consumers will get satisfactory channels with this price cap? Consequently, Taiwan cable TV subscribers' interests are sacrificed in the war between the cable TV system operators and the channel providers.

Taiwan cable subscribers are often surprised at changes in channels, which they could view at cable TV channel-license renewal time. The subscribers to MSO-controlled cable systems often discover that certain popular channels owned by independent channel providers have been terminated. This occurs because these channel providers could not accept the MSO's low license fee offer. Subscribers of independently owned cable systems may discover that a whole package of channels controlled by a MCP has disappeared because a system operator is unable to afford that MCP's monopolistically bargained channel license fee package. Channel licensing transactions between channel providers and system operators are monopolized and unfair.

5. The role of the fair trade act

In a free market, customers benefit from quality improvements and cost savings through product and service competition. Thus, no enterprise is allowed to use its market dominance to prevent competition. Hence many governments enact a fair trade act to set guidelines for enterprises to compete for innovation in quality, functionality, and services, etc., and to prohibit businesses from hindering competition.

Taiwan's cable TV systems have either entered into an alliance or merged into MSOs in attempts to exert greater bargaining power against channel providers. This kind of "concerted purchasing action" is actually prohibited according to Article 14 of the Taiwan Fair Trade Act.²

Each of the two MSOs service about one-third of the total number of Taiwan cable TV subscribers. When an independent system competes against a MSO owned system in the same zone, the channel-license cost of the former would be higher than that of the latter because the MSO possesses a dominant bargaining position that enables it to exclude competition. This qualifies the MSO as a monopolistic enterprise defined in Article 5 of Taiwan Fair Trade Act.

²Taiwan Fair Trade Act (1999). <http://www.ftc.gov.tw/e2ftl1999.html>.

Cable MSO uses its market power unilaterally to set the channel license fee, thus demanding the independent channel providers' preferential treatment in the form of low prices. This violates Article 10 of the Taiwan Fair Trade Act.

A MCP may use its highly rated channels, such as popular movie channels or sports channels, as leverage to pressure cable system operators to license all other channels in the MCP family. Forcing cable operators to broadcast unpopular channels is a waste of limited cable resources. Hence, this action of the MCP, which improperly limits cable system operators' business activity, violates Article 19 of the Taiwan Fair Trade Act.

As a consequence of Taiwan cable MSOs and MCPs violating the Fair Trade Act, independent cable system operators and independent channel providers will eventually be pushed out of business. Consumers' interests will be compromised because there will be fewer cable systems and fewer channels from which to choose. In such circumstances, channel quality might decrease, and the channel subscription fees might increase.

Taiwan lacks an enforcing mechanism which can prohibit vertically integrated programming suppliers from discriminating in the price, terms, and conditions of sale or delivery of satellite-delivered programming to affiliated and unaffiliated cable operators. In the Section 6, a channel licensing mechanism between programming suppliers and cable systems is recommended in an attempt to ensure that both parties conform proactively to the Fair Trade Act.

6. Recommendation of an open channel licensing mechanism

The majority of the Taiwan cable TV transmission systems generally have capacity for 70–80 channels. One of the key success factors in running a cable TV system is to license channels that best fit the interests of subscribers. A cable TV system operator's bottom line will increase through increased subscription and customer satisfaction.

Given the existence of the Fair Trade Act in Taiwan and the clear violations of that Act as described above, the question arises as to why no action has been taken to correct the unfair trade situation between the cable systems and the channel suppliers? The Fair Trade Act only prohibits anti-competitive trade activities after proof and evidence is produced to convince the Fair Trade Commissioners of a violation. Even if an independent channel supplier could provide the Fair Trade Commission with hard evidence of "concerted purchasing actions" by the MSOs, the Commission can only order the MSO to cease the action or incur fines against it. The MSOs would simply be subtler in their subsequent purchasing actions and would thus make it more difficult to collect any evidence of wrongdoing. The independent cable system operators and independent channel providers do not have much confidence in the Taiwan Fair Trade Commission's authority to stop the unfair trading activities as long as the vertical/horizontal concentration infrastructure remains unchanged.

Taiwan cable TV problems are rooted in the "concerted purchasing actions" of MSOs and the "concerted selling actions" of MCPs. Relying on the Fair Trade Act to penalize exposed violations is ineffective. A solution to this problem should focus on preventing acts of unfair trading from occurring in the first place.

The business objective of any channel provider should be to license its channels to as many cable TV subscribers as possible. Therefore, a channel provider should treat subscribers in all

cable systems equally by charging them equal licensing fees. Otherwise, it would violate Item Two in Article 19 of the Fair Trade Act, which prohibits treating different enterprises discriminatorily without justification.

Channel providers' revenue should be directly proportionate to the number of licensed subscribers. Every channel should institute, independent from other channels, a per-subscriber licensing fee, and then based on this standard fee, sign channel license contracts with each and every cable system operator non-discriminatorily. If every channel provider licensed its channels this way, the issue of "concerted selling action" would no longer exist. Likewise, if independent cable systems and cable systems belonging to MSOs paid the same standard per-subscriber license fees, the "concerted purchasing action" would also disappear. Every channel provider should set up its per-subscriber license fee standard carefully because all cable system operators make their licensing decisions solely based on this unit price and the popularity of the channel program content.

An ideal cable TV channel licensing mechanism is described above. The government's job is to bring such a mechanism into existence. Essential to the success of this fair trading mechanism is the assurance that transaction details of every licensing contract are open and transparent. The government should mandate all channel providers and system operators to abide by the following rules:

All channel providers must publicize their per-subscriber license fees, together with any payment terms and conditions, which are non-discriminatorily applied to all systems. Most importantly, bulk discounts based on the number of subscribers of a cable system should not be allowed. Such discounts discriminate, without sufficient justification, against small cable systems with relatively fewer subscribers. Since TV channel programs are distributed to cable head-ends via satellite downlink feed, the cost of distributing channel programs to cable systems is fixed. This is irrespective of the number of licensed cable systems, or the number of subscribers. Although some channel providers may argue that the time and effort needed to negotiate with multiple small cable systems is greater than that with one large cable system with the same total number of subscribers; the difference in negotiating time and effort is trivial. Differences in channel-licensing costs would be substantial if the per-subscriber licensing fee is discounted for the large cable systems.

Each channel provider must agree to license its channel to any cable TV system operator, any direct-to-home satellite operator, any telecom operator, or any multi-media multi-channel distributor according to the same licensing contract. This agreement will then become a channel provider's mandatory commitment before its operations permit is awarded by the GIO.

All channel-licensing contracts must be filed at the GIO for public review. The GIO will retain registered accountants to audit the licensor and the licensee to ensure that the contract requirements are faithfully executed. Any party that fails to abide by the provisions defined in the standard contract should be heavily penalized.

If different channels renew their licensing contracts at different times of the year, it will be difficult for system operators to select channels because they cannot evaluate the price performance of all channels at the same time. The authors recommend that the Taiwan GIO institute an open channel selection mechanism that would take place at the same time each year, e.g., between November 1 and 20. Each channel provider interested in licensing channels to cable systems and other MVPD in the next fiscal year would be required to submit a standard licensing

contract with a specific per-subscriber licensing fee in a sealed envelope to the GIO, by October 30. The GIO would open these envelopes in public on November 1. Every channel's per-subscriber license fee, together with other permitted payment terms and conditions, would be publicized in the media. Between November 1 and 10, channel providers could organize trade shows to demonstrate their products to system operators as well as to consumers. All system operators are required to finish their channel selections and sign the licensing contracts with channel providers by November 20. Every copy of the signed licensing contract will have to be filed for record at the GIO by November 20.

The GIO, together with registered accountants, would audit the monthly number of subscribers of all cable systems aperiodically. The channel providers would then have confidence that they would be paid fairly according to the actual number of subscribers by each cable system licensing their channel.

This open channel selection mechanism would completely eliminate any "concerted selling action" by MCPs. Independent cable system operators would choose each channel independently and freely to reflect their subscribers' interests.

In the near future, most cable systems will install addressable de-scrambling boxes at subscribers' homes. By that time, cable systems will have to set up bespoke prices for each of their premium channels. The proposed open channel selection mechanism simply asks the channel providers to set up non-discriminatory prices for all system operators before the de-scrambling boxes are widely deployed in Taiwan.

The open channel selection mechanism recommended above defines a market cost for each channel. This mechanism can serve as the basis for calculating the prices that cable operators may want to charge their subscribers. When every channel has its price, subscribers with de-scrambling capability can eventually select channels they want to watch and pay only for those channels. When a fair channel pricing mechanism is in place, there will be no need for the government to set a price cap on the monthly cable subscription fee. This fee cap has proven to be an ineffective means of protecting consumers' rights; on the contrary, it hinders programming quality.

This open channel selection mechanism could also eliminate "concerted purchasing actions" by MSOs because they cannot leverage their large subscriber base to bargain for lower channel-licensing fees. MSO-affiliated systems and the independent systems shall make their channel selection decisions solely based on the price performance of the channels. Independent channels would then stand a fair chance of competing against the MCP's channels.

In Taiwan, there is a Satellite Broadcast Act,³ which regulates all TV channel providers delivering program content through satellite downlink feed. Before a channel provider permit is awarded, an applicant is required to submit a business proposal for a committee to review. Article 8 of Taiwan's Satellite Broadcast Act asks the applicant to specify the licensing fee and explain the rationale of its calculation. The permit review committee should mandate that all channel provider permit applicants commit to license channels non-discriminatorily to all system operators, based on one per-subscriber license fee standard with non-discriminatory payment terms and conditions. This mandate would serve as the legal grounds for the Taiwan GIO to institute the open channel selection mechanism as recommended in this paper.

³Taiwan Satellite Broadcast Act, <http://www.gio.gov.tw/info/radiotv/law/law9f.htm>.

7. Conclusions

The Taiwan Cable TV penetration rate has reached above 80% and has become indispensable to people's everyday life. As new technologies and new applications emerge in the Internet and multi-media arena, to have a healthy and forward-looking cable TV environment is critical.

Since Taiwan's cable system operators have formed conglomerate MSOs, while channel providers have also formed MCPs, horizontal and vertical integration have given the conglomerates formidable market power. Consequently, independent cable systems and independent channel providers suffer from unfair competition. This paper explains why the Fair Trade Act can only respond to unfair trade actions after they are committed and demonstrates its ineffectiveness to eliminate unfair competition in the Taiwan cable TV market.

To take the fair trade litigation between the United States Justice Department and Microsoft Corporation as an example, it not only takes lengthy litigation time but also pursues the drastic measure of unbundling the Microsoft Corporation. Additionally, it cannot compensate properly those companies that suffered from anti-competitive processes when Microsoft was violating the Fair Trade Act.

This paper recommends an open mechanism for TV channel licensing which can be used to remedy the "concerted purchasing actions" of MSOs and the "concerted selling actions" of MCPs. Similar anti-competition situations may occur in the cable TV markets of other countries. The open licensing mechanism presented in this paper might prove useful to other countries facing similar unfair trade problems, or could be adopted in preventing such problems from occurring.

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