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## Conference Paper

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# The 20th Biennial Conference of the International Telecommunication Society

“The Net and The Internet:  
Emerging Markets and Policies”

Rio de Janeiro, Brazil

30th November – 3rd December 2014

**“The Index Construction of Cross-Media Concentration in  
the Digital Era: A comparative study”**

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## **Abstract**

In the convergence age of media, telecommunication and Internet, firms need more media contents, audiences or platforms to acquire the economics of scale or scope. Some critics argued that the traditional antitrust law handles the violation of horizontal and vertical merger & acquisition, but not for the conglomeration. If the conglomerate's shares are small in each individual market, whether the sum of the total shares will deter new competitors from entering the market requires further discussion. The KEK, the index of cross-media concentration used in German, is applied to examine the degree of multiple market concentration. However, this study found that for most countries they did not analyzed M&A cases by using the similar KEK index because there are many questions raised in the calculation and definition. Currently the antitrust law is practicable enough to keep the cross media competitive if the barrier could be removed and new entry could enter the market.

**Key words:** merger, acquisition, conglomerate, concentration, cross media, antitrust law

## I. Introduction

Traditionally the antitrust law concerns the manipulative market power of the horizontal or vertical merger and concentration (Horwitz, 2005; Just, 2009; Shelanski, 2006). For those big conglomerates across different industries, it is hard to regulate their anti-competitive conducts and market structures since they belong to the separated industries or hard to evaluate the impact of the entry barriers. For example, the FCC would clearly set the limitation of cable system subscription in the deal of the merger of Comcast and Warner Brother. However, it is difficult to question whether those conglomerates might charge the unreasonable prices to control those programming channels from their competitors.

In the digital media age, it is harder to define the originally separated markets. The media compete for the same advertising and audience attention. There are more and more media conglomerates arising across mergers of the music, television, newspaper, telecommunication and Internet markets. They maybe are not big enough to violate the antitrust law in the individual market. However, they can perform great influence if you count all kinds of media together (Iosifides, 1997).

Some country regulatory, like KEK in German, began to calculate the index of the cross-media concentration by weighting the media availability, importance and influence. However, most of the countries still apply only the antitrust law in the same media market. As the convergence continuing and the mergers extending to telecommunication and the Internet industry, it is important to understand the real control powers of the cross-media conglomerates. Therefore, whether to construct a reliable regulatory tool and index might become vital in the future.

## II. Literature Review

### 1. The trends of Mergers & Acquisitions

In the convergence age of media, telecommunication and Internet, firms require diversities of media contents to attract audiences, or merge as giant platforms to extend the market power of the economics of scale or scope. In figure 1, there are more and more mergers & acquisitions (M&A) announced worldwide in the media & entertainment industry. For example, in the 2014 year, there are several huge M&A cases announced in the U.S., for example, Facebook to acquire WhatsApp for \$19 billion, Comcast to merge with Time Warner Cable for \$45.2 billion, and AT&T to buy DirectTV for \$48.5 Billion.

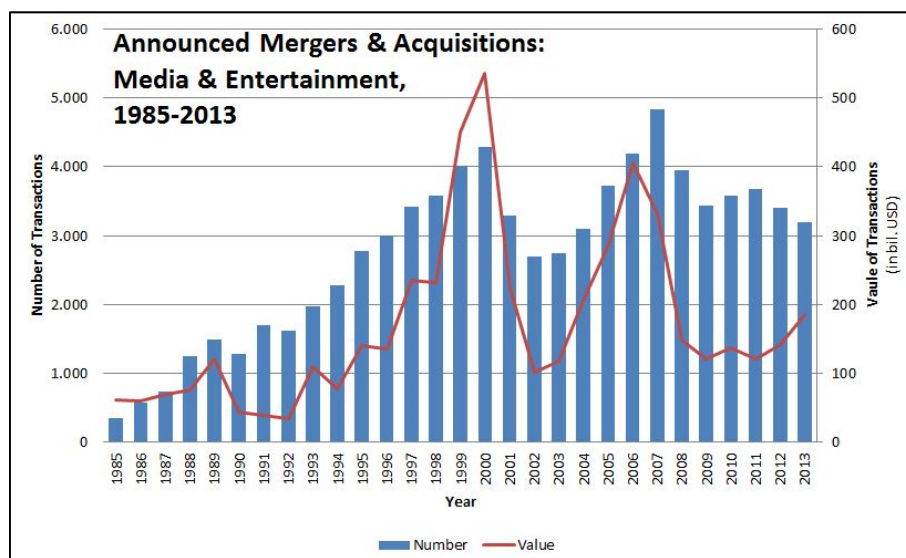


Figure 1, the worldwide announced mergers & acquisitions in the media and entertainment industry.

### 2. The Problem of Media Consolidation and Conglomeration

Many critics concern that the giant conglomerates may favor their own media contents and influence the free market of opinions (Group of Specialists on Media Diversity, 2008; Noam, 2009). For example, Jung (2002) suggested *Time* and *Fortune* favored their parent company in terms of valence or direction of coverage of merger, emphasis on the

company, and amount of coverage. Similarly, Lee and Hwang also (2004) found that conglomerate ownership leads to a highly regarded newsmagazine showing favoritism toward the entertainment products of its parent corporation.

Besides, if the conglomerate also owns the journalistic companies, it will raise the institutional conflict of interest (Davis and Craft, 2000). For example, if the food product of the parent company violates the code of the law, could the affiliated journalistic company reports professionally and tries to dig the facts to beneficial to the society? McKnight (2010) even argued that Murdoch's News corporation is a media institution with a mission to exercise political influence in the US, UK and Australia.

Smith (2009) analyzed the newscasts of one of the US first duopolies, a single company to own two television stations in the same media market to compare content qualities of the before and after consolidation newscasts. The results show the number of stories and time dedicated to local news increased significantly. However, the allocation of reporters to news coverage did not increase. Journalists would be working simultaneously in several media, including some in which they lacked training, and some felt that pressures on journalists working in multiple media would provide news of lower quality (Edwardson, 2007).

### *3. The Current Regulation of Cross Media Concentration*

Many countries have implemented cross-media and other ownership restrictions to prevent excessive concentration of media assets and thus promote a diversity of sources of opinion. However, at the convergence age, the conglomerates expect to look for the scale efficiency and the regulatory agency began to reduce of restriction among the dual markets. For example, in 2003 year, the FCC brought newspaper into its relation of ownership rules

when it proposed permitting to own a newspaper and a broadcast station under some circumstances. The commission created a sliding scale by which a newspaper also could control broadcast stations in area with at least four television stations (Edwardson, 2007).

The British media regulator Ofcom is recommending that local cross-media ownership rules are liberalized, with companies only barred from owning all three of: more than 50% of the local newspapers in a regional market, a radio station and the ITV license for the area. The recommendations will be welcomed by newspaper, TV and radio companies, which have been urging the government to liberalize local cross-media ownership rules as they struggle with plunging advertising revenues in the recession. However, the regulator has ruled out relaxing national cross-media ownership rules which restrict cross-ownership of ITV licenses and national newspapers.

Similarly proposed changes to the Australian cross-media regulation prohibiting the common ownership of commercial free-to-air television and radio services and daily newspapers in the same market (Papandrea, 2006). The replacement of the existing bans on cross-media ownership with the proposed minimum number of voices rule will undoubtedly lead to increased concentration of ownership of main media with a likely significant consequential impact on diversity.

For example, the German Commission on Concentration in the Media (KEK) proposed new measurements for media markets in view of the proposed acquisition of the broadcaster ProSiebenSAT1 by the press group Axel Springer Media in 2006. KEK developed a new weighting system which converted the market share of press, radio, the Internet into the equivalent in television audience share (Picard, 2009; Just 2009).

### **III. Research Question**

Therefore, this study hopes to review the index of the cross-media concentration constructed and applied in German, to see what kind of media should be included and how to weigh their importance? Does the index can really provide enough regulatory information? How to interpret the number of the index? (Just, 2009)

### **IV. The Index Construction of Cross Media Concentration**

Most countries concern the problems of cross-media concentration in the digital age, and they usually examine the impacts of merger & acquisition case by case. They analyze the case in the individual media market, or in the dual markets which share the similar audiences or advertisings. However, few of them deal with the conglomerate merger case across many different markets.

Currently this study only found that KEK used in the case of Axel Springer AG and ProSiebenSat.1 Media AG in German was the most popular index applied. The Korean Communication Commission (KCC) also calculated the similar index, except for the advertising market share was also considered. Recently, the Taiwanese's draft of the media antitrust law also includes the similar KEK index to calculate the cross-media market power.

#### *1. The weighting factors*

For various media, originally they are belonged to the separated markets. In order to compare the sharing in a single market, it is necessary to weigh for each medium. For example, in the KEK case, the weighting factor was 1 for TV, 2/3 for radio, 1/2 for Internet, 2/3 for newspaper and 1/10 for magazine, based on their power suggestion, impact potency and availability.



However, whether the factors are suitable for different countries and market should be discussed. For example, the penetration of radio is less than 30%, compared to 96% of television in Taiwan. Besides, the influence and advertising of television is much greater than those in radio, the weighting factor of radio may be reduced from 67% to 50% is more reasonable in the Taiwanese media market.

## *2. What kind of media categories should be included?*

In calculating the index of cross concentration, how many categories of media should be separated or included? For example, if the conglomerate own the terrestrial broadcasting station or 24 hour news station, whether the index only calculate the TV channel market share in the multichannel television industry, or in the terrestrial broadcasting or 24 hour news industry separately?

If the index finally is normalized in the base of 100%, there should be no difference in either way. However, if the index is to add all different shares from the individual market, the more categories included, the larger index is. In addition, the content providers and the platforms should not consider as the similar players and weigh in the same market. For example, the cable system is the platform and has the power to decide whether to allow most channels to broadcast or not. This is the typical vertical integration, not the types of horizontal or conglomerate mergers.

3. *To only sum market share or normalized?*

After the individual market shares are multiplied by the weighting factors, some analysis only sum up those results as the index of cross media concentration. This is not correct because the index is not normalized and the more market categories included, the bigger index is. For example, instead of arguing the adjusted market share as 41.4% in the total weighting factors as 2.93, the normalized index should be 13.6% (=41.4%/3.04, in Table 1), based on the market as 100%.

The 41.4% does not make any sense, because if there are more categories of media included, such as cable system or shopping channel, the total adjusted share will increase to 73.9%. As more and more different types of media accounted, the adjusted share will even larger than 100%. Therefore, the 73.9% index should be normalized as 16.4% (73.9%/4.54), based on the market as 100% too.

Table 1, the example to calculate the index of cross media concentration

Media	Market Share	Weighting Factor	Adjusted Share
Television	20%	1	20.0%
Radio	10%	2/3	6.7%
Newspaper	10%	2/3	6.7%
Internet	15%	1/2	7.5%
Magazine	5%	1/10	0.5%
Total		2.93	41.4%
Normalized			14.1%
Cable System	20%	1	20.0%
Shopping Channel	25%	1/2	12.5%
Total		4.43	73.9%
Normalized			16.4%

#### 4. *How to interpret the index?*

The total adjusted share 41.4% or 73.9% does not mean anything as mentioned above, how about the normalized 14.1% or 16.4%? Originally, the larger market share could be up to 25%. However, after weighting and normalizing, because of the smaller shares in other media markets, the normalized index is smaller than 25%. Except for the shares of individual markets are even, otherwise the normalized index will be much smaller than the biggest originally individual share.

However, the total market size consists of the television, radio, newspaper Internet to magazine and the weighting factors added is 2.93. Although the adjusted market share is only 14.1%, the market power may be similar as the 20% in the television market only, or even bigger if there is integration among the conglomerates.

For example, in Table 2, the four conglomerates (A, B, C, D) have the same KEK 20%. However, their individual market shares in television, radio, newspaper, Internet and magazine are quite different. For conglomerate A, the sharing in each individual market is the same 20%, so the KEK is also 20%. However, since the conglomerates B, C and D, have very small share in some markets, the rest two or three market shares are very big. For conglomerate B, the TV share is 50% and magazine is up to 70%.

On the other hand, for conglomerate E, if it does not own any business in the radio, newspaper and Internet markets, the normalized factor became 1.1 (instead of 2.93). Therefore, the KET increases from 20% to 52%, which is more reasonable to represent the market power of the conglomerate E.

Table2, the example to interpret the index

Conglomerate	TV	Radio	Newspaper	Internet	Mag	KEK
A	20%	20%	20%	20%	20%	20%
B	50%	1%	1%	1%	70%	<b>20%</b>
C	1%	45%	40%	1%	1%	20%
D	1%	1%	40%	47%	70%	20%
E	50%	-	-	-	70%	<b>52%</b>

Note: the weighting factors, TV as 1, Radio as 2/3, Newspaper as 2/3, Internet as 1/2 and Magazine as 1/10.

## V. Conclusion

After reviewing most of the index available to calculate the cross-media concentration, this study found that very few countries had this kind of index constructed. The KEK index of German is the special case and there is a similar example discussing in the Taiwanese media antitrust law now. However, most countries still regulate only the merger of dual markets at once, especially for the broadcasting and newspaper industry to maintain their diversities of opinion markets.

Although currently few countries had adopted this kind of index, it still can provide the measuring tool to understand the circumstance of the cross-media merger and concentration. However, there are still a lot of questions needed to be addressed, such as the weighting factors, the normalized process, and criteria to judge. The academics and the regulatory agents should continuously discuss the reasonable and reliable index. The index might not be used as the single regulatory standard, but could be added as an evaluation tool, applied with the other concentration ratio of CR4 and HHI.

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