

The Effect of Competition Among Japanese Local and National Dailies on News Coverage in Local Newspapers

by Hiromi CHO*

Technology allowed smaller newspapers to reduce production and distribution costs and allowed larger dailies to cover wider areas at cheaper costs. As technology has improved, far more newspapers compete with different types of newspapers across prefectural boundaries. This type of competition is called *interlayer competition* (Rosse, 1975). Interlayer competition between local newspapers, *chihoushi*, and national newspapers, *zenkokushi*, has increased.

Reacting to this trend, a number of journalists in Japan have expressed concern that competition between local newspapers and national dailies will result in lower quality newspapers, and readers eventually will abandon newspapers in favor of alternative sources of news (Nihon Shinbun Kyokai Kenkyujo, 1998: 82-128). However, empirical research in Japan on the effect of newspaper competition on content has been underdeveloped. Previous studies in Japan have examined only the relationship between the interlayer competition and international news coverage (Cho, 1996; Cho, 2001; Cho & Lacy, 2000). The absence of any studies about impact of interlayer competition on all three of the geographic emphases of news coverage—local, national and international coverage—makes this research worthwhile.

The purpose of this study is to expand knowledge about the competition between local newspapers and national dailies by examining news coverage in local Japanese newspapers. The study is based on the assumption that daily newspaper coverage is influenced by newspaper competition.

Background

A conceptual model of *interlayer competition* was first proposed by James Rosse (1975) and illustrated how there are four layers of newspapers that compete with newspapers in layers above and below. The first layer consists of metropolitan dailies that cover an entire region or state. These newspapers

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provide a large amount of regional, national and international coverage, but the amount of local news is relatively small. The second layer consists of satellite city dailies, which have more local coverage than metropolitan dailies, but also cover news occurring outside their cities of origination. The third layer is composed of suburban dailies, which are very local in nature. The fourth layer is comprised of a variety of newspapers such as paid and free weekly newspapers, shoppers, and other specialized non-daily newspapers. Content in these newspapers is almost exclusively local in nature.

In addition to the four layers included in Rosse's original model, at least two more layers exist. One is a layer of national newspapers above the metropolitan daily newspapers. With the development of *USA Today* and the national edition of *The New York Times*, researchers have begun to consider them constituents of this layer. The sixth layer consists of group-owned non-daily newspapers that often ring central cities in metro areas.

The basic hypothesis of the interlayer model is that there is little competition for circulation and content among newspapers within each layer because newspapers of the same level rarely share circulation zones with their competitors. Their geographic boundaries may overlap, but only slightly. Rather, it is the competition between the different layers that is significant, and this competition should intensify as one moves down the model. As a result, newspaper coverage in the lower layers becomes more local in nature and tends to have a larger newshole in order to protect these newspapers from larger newspapers originating from outside the county. According to this model, newspapers in different layers are more likely to be complements than substitutes for one another.

Only a small number of studies have been conducted with content analysis to analyze the connection between interlayer competition and the content of daily newspapers. Lacy (1988) examined the content of a national random sample of 114 newspapers and found that the intensity of interlayer competition influences the coverage of news in the city in which the newspaper is located. The results of the comparison among newspapers in various layers suggested that the suburban dailies had a significantly smaller percentage of news space given to foreign news, and a larger percentage of space given to county news than did metropolitan dailies. When suburban dailies were compared to satellite dailies, suburban dailies had a significantly larger percentage of space devoted to city news and county news than satellite dailies. Compared to metropolitan dailies, satellite dailies had a smaller percentage of news sections given to foreign news, and a smaller percentage of news section given to county news than the metropolitan dailies. He concluded that as larger newspaper with greater resources for covering events outside the local market invaded a suburban market, the small newspaper, in order to retain their readers, differentiated themselves by increasing local news coverage. In addition, the intensity of interlayer competition influenced the percentage of city coverage where the paper is located.

Newspapers in the lower layers tended to have more local news coverage.

Lacy, Sohn and Stephens (1989) examined suburban coverage in metropolitan dailies and non-daily suburban papers in Denver and Detroit and found that metropolitan dailies in both Denver and Detroit had less suburban news coverage than non-daily suburban papers. These results indicate that newspapers in the lower layers tend to use local coverage to differentiate themselves and tend to complement newspapers in upper layers.

Studies in Japan

Interlayer competition also exists in Japan with three general layers. The first layer is composed of five national dailies that are distributed throughout the country. The five national papers are *Yomiuri Shimbun*, *Asahi Shimbun*, *Mainichi Shimbun*, *Sankei Shimbun* and *Nihon Keizai Shimbun*.¹ The second layer contains local newspapers.² Most of the local newspapers are based in the capital cities of Japan's 47 prefectures. Twenty-seven prefectures are monopoly markets, and seven prefectures have only two local newspapers in their markets. The highest number of newspapers a prefecture had was four in 1998 excluding special newspapers. The third layer includes weeklies, and other specialized non-daily newspapers.

Feldman (1987) examined a relationship between national dailies' and local dailies' subscription in Japan. He conducted a survey research of 402 Japanese politicians about newspaper subscription. He found that Diet members had a reading preference, which was not based solely on circulation of newspapers. Although *Yomiuri Shimbun* had the largest circulation in Japan, 43.7% of Diet members read *Asahi Shimbun*, followed by *Nihon Keizai Shimbun*, read by 20% of Diet members, and *Yomiuri Shimbun*, which was read by 11.4% of Diet members. Diet members saw that *Asahi Shimbun* supplied wider coverage of political activities than any other paper. The results clearly showed Diet members distinguish between *Asahi Shimbun* and the other national papers, and as a result, the other papers were not acceptable substitutes for *Asahi Shimbun*.

Feldman also found that politicians with less experience tend to read both national papers and local papers, but this tendency decreased greatly as experience increased. This study suggested that local papers are complements to national papers for less experienced politicians as well as substitutes for national dailies for more experienced politicians. This result indicated that Japanese politicians distinguish between local dailies and national dailies intentionally.

Cho (2001) examined the impact of interlayer competition on international news coverage in Japan, where he analyzed the international news coverage of 48 newspapers. He found that competition had a negative relationship with 16.1% of the variance in total international news. The higher the intensity of competition was, the less international news appeared in the newspapers. He concluded that,

like findings in Western countries, the intensity of competition influences news coverage. He also reported that in Japan, competition impacts international news coverage, while Western newspaper competition impacts local news coverage. This study suggests the existence of interlayer competition in Japan.

Cho and Lacy (2000) conducted research examining the impact of interlayer competition on international conflict-oriented news. Results showed that competition had a negative relationship with international conflict-oriented news. The results indicate that Japanese newspapers differentiate news coverage by allocating less space to international conflict-oriented news when competition is high. This study was partially consistent with existing literature in the United States that support the notion that competition influences local conflict coverage.

Overall, previous literature suggested that newspapers produce products with enormous differences in content because the intensity of competition varies within a given geographic area. Newspapers in the lower layers tend to use local coverage to differentiate themselves and tend also to be complements for newspapers in the upper layers. Although little research has tested Rosse's interlayer model outside of the United States, there is sufficient evidence to suggest that interlayer competition does have an economic impact on newspapers in the local markets of Japan.

Hypotheses

Based on existing research, this study addresses the extent of interlayer competition. The following hypotheses are addressed.

H1: The percentage of newshole in news pages given to home prefecture coverage is positively related to the intensity of interlayer competition.

H1 is related to the theoretical proposition that newspapers must differentiate themselves by providing information that their competitors do not provide, but at the same time, they must be a substitute for the competitors. Local newspapers differentiate themselves to retain their readers by increasing local news coverage.

H2: The percentage of newshole in news pages given to national coverage is negatively related to the intensity of interlayer competition.

Although little research about the impact of competition on the percentage of newshole in news pages given to national coverage exists, and little is known about how the intensity of competition affects content, H2 will be tested in order to find the relationship among competition, local coverage, national coverage and international coverage.

H3: The percentage of newshole in news pages given to international coverage is negatively related to the intensity of interlayer competition.

H3 is based on studies that found a negative relationship between intensity of competition and international news (Cho, 2001). The higher the intensity of competition is, the less international news is provided.

Method

A census of all 70 local newspapers affiliated with Nihon Shinbun Kyokai was included in this study. Special papers such as professional, business, sports, and foreign language papers, and non-dailies were excluded, based on *Nihon shinbun nenkan '99-'00*. A constructed week was randomly selected by computer from January 1, 1999, to June 30, 1999.³ The news section in Japanese newspapers was examined. This study focused solely on this section because it performs a public information role in the function newspapers which reflect the marketplace of ideas concept.

To code newspaper content, definitions of the variables used in this study were clarified. Taking into account the comparability of newspaper research in Japan with that in the United States, categorization and definitions followed previous studies conducted in the United States. Specifically, Lacy's content analysis (1988) was employed.

Category Definitions

The following definitions were used to code the newspaper content:

Total space. Total space refers to the entire contents of a newspaper from the first page to the last page.

Advertising. Advertising is defined as that portion of the newspaper devoted to display advertising, classified advertising, and any copy identified as advertising.

Newshole. Newshole is determined by subtracting the amount of advertising from the amount of total space. All photographs, tables, graphs, news, obituaries, and weather are not counted as newshole.

Local copy. Local copy is copy about the prefecture where the newspaper is located. The main emphasis of the story must be local. The presence of one or two paragraphs about the impact of a state, national or international event or issue within the newspaper's primary area of coverage is not considered local.

National copy. National copy is copy about the prefecture in which the newspaper is not located.

International copy. International copy is copy concerning events or issues

in countries outside of Japan, as well as other world news regardless of the origin of the news.

The units of measurement for this study were square centimeters of copy and advertisements. Two coders coded the newspapers. As a reliability check, the two coders measured five randomly selected stories of two randomly selected pages in 84 newspapers.⁴ Space agreement check was measured using a Pearson product-moment correlation coefficient, $r = .9914$. Agreement for category was measured by Scott's P_i , 93.33%.

Definition of Independent Variables

Competition was measured in this study by subtracting the penetration of the trailing newspaper from the penetration of the leading newspaper. The index indicates how close the trailing newspaper is to the leading newspaper. The range is from 0 to 100, with zero meaning intense direct competition and 100 meaning a monopoly.

Two variables were used as controls in this study: the number of households and circulation. The number of households is believed to have an impact on the dependent variables being examined in this study (Lacy 1988). The number of households in the prefecture indicates the overall circulation potential of the newspaper market in the prefecture. Therefore, the number of households was used as a control variable in this study. The data for the number of households was taken from *Jumin kihon daicho*, a report on population and number of households in cities and prefectures in Japan.

Another control variable is circulation. Circulation has been found to have a relationship to news coverage (Lacy & Bernstein, 1988). The circulation figures used in this study were based on data from *Zenkoku shimbun gaido 2000* and *Shimbun Publishes' Report 1999*.

The three hypotheses were tested using ordinary least squares multiple regression analysis. Before running the regression analysis, histograms were developed to specify whether outliers existed. Outliers were defined as cases more than three standard deviations from the mean, and corrected by reassigning the value of three standard deviations from the mean. The residuals were plotted against each dependent variable, and data were consistent with assumptions of normality, linearity, and homoscedasticity of residuals.

Correlations among independent variables were also checked to avoid multicollinearity. Independent variables were not highly correlated with each other.

Results

Table 1 shows the descriptive statistics for all 70 local Japanese daily newspapers. The average circulation of a newspaper was 267,635.64, with a standard deviation of 243,632.53. There was a great variance among newspapers in Japan. Compared to U.S. newspapers where the average circulation was 37,731.43 (Editor & Publisher Co., 1999), local Japanese newspapers had larger circulation.

Table 1 Descriptive Statistics for Independent Variables and News Coverage

Variables	N	Mean	Std. Deviation
Competition	70	54.42	28.05
Household	70	1,009,184.50	974,808.17
Circulation	70	267,635.64	243,632.53
% of Newshole given to Local Coverage	70	16.14	6.04
% of Newshole given to National Coverage	70	14.19	5.27
% of Newshole given to International Coverage	70	4.71	2.49

The market size in which a newspaper circulates varied from 205,871 to 4,000,000. The mean of the households in a province was 1,009,184.50. The average market size in the United States was 121,837.97 (U.S. Census Bureau, 2000). The average market size of the local Japanese newspapers was ten times larger than that of U.S. newspapers.

Hypothesis 1 presumed that the percentage of newshole in news pages given to home prefecture coverage would be positively related to the intensity of interlayer competition. This hypothesis received no support. Competition had a negative relationship with the percentage of newshole in news pages given to home prefecture coverage, and explained 5.3% of the variance (Table 2). The standard regression coefficient equaled $-.260$. The impact of competition was found, but the direction was opposite from what was expected.

Hypothesis 2 stated that the percentage of newshole in news pages given to national coverage would be negatively related to the intensity of interlayer competition. The regression equation failed to support this hypothesis. The impact of competition had a positive relationship with 6.6% of the variance in the percentage of newshole in news pages given to national coverage. The beta weight for competition equals $.290$. The impact of competition was found, but the direction of the relationship of the two variables was not the same as what the hypothesis predicted.

Table 2 Regression Results for Competition on News Coverage

Independent Variables	Dependent Variables								
	% of Newshole given to Local Coverage			% of Newshole given to National Coverage			% of Newshole given to International Coverage		
	Regression Coefficient	Beta Weight	Squared Part r	Regression Coefficient	Beta Weight	Squared Part r	Regression Coefficient	Beta Weight	Squared Part r
Competition	-.056	-.260	.053	.054	.290	.066	.017	.189	.028
Household	-.0000058	-.093	.007	-.0000002	-.038	.001	-.00000029	-.116	.010
Circulation	-.0000089	-.360	.001	.0000071	.328	.100	.0000049	.481	.215
Constant	16.071			15.465			4.604		
R-Square		.217			.218			.299	
N=70									

Note: The measurement of competition was modified by multiplying by minus one. The index ranged from zero (intense competition) to -100 (monopoly).

Hypothesis 3 predicted that the percentage of newshole in news pages given to international coverage would be negatively related to the intensity of interlayer competition. The data did not support the hypothesis. Competition in the equation accounts for 2.8% of the variance in the percentage of newshole in news pages given to international coverage. With a beta weight of .189, competition was positively related to the percentage of newshole in news pages given to international coverage. These data suggested that the impact of interlayer competition was found, but the direction was opposite from what was anticipated.

In addition to the hypothesized relationships, other important relationships were discovered. As many scholars have found, household and circulation, control variables in this study, were the important determinants in newspaper coverage. Household had a relationship with the percentage of newshole given to international coverage with a beta weight of -.116. This negative relationship indicated that newspapers in larger prefectures produced a smaller percentage of newshole given to international news than newspapers in smaller prefectures.

Circulation had a positive relationship with the percentage of newshole given to national coverage with a beta weight of .328, and explaining 10.0% of the variance. Also, circulation had a relationship with the percentage of newshole given to international coverage with a beta weight of .481, and was responsible for 21.5% of the variance. These indicated that newspapers with a larger circulation had more newshole given to national news and international coverage.

Conclusions

With a census of all 70 local newspapers, this study examined the impact of interlayer competition on news coverage—local coverage, national coverage and

international coverage. Three hypotheses related to the impact of interlayer competition on news coverage were not always supported by this study. However, the findings provided evidence supporting the impact of interlayer competition. This study also suggested the connection among competition, local coverage, national coverage and international coverage.

The intensity of interlayer competition had a negative relationship with local coverage and a positive association with international coverage. These results were inconsistent with two previous studies in Japan (Cho, 1996; Cho, 2001). Several factors may be responsible for this conflict. First, the two previous studies analyzed international stories on each page in the newspaper, while the present study analyzed all the stories on only news pages whose primary role was that of providing public information.

Second, according to the two previous studies, Japanese newspapers devoted fairly large amounts of international news to international social news (47.1%) and international sports news (17.5%). Because this study analyzed only news pages, coverage in the newspaper was more likely to be political and economic in nature rather than social or sports-oriented.

Third, there was a difference in the measurement of competition. This study used a competition index as the measurement of competition, while the previous studies used the competitors' penetration.

Taking these three factors into consideration, results of this study were not necessarily inconsistent with those of the two studies. The percentage of newshole in news pages given to local coverage decreased, and international coverage increased as the intensity of interlayer competition increased.

Along with these findings, the intensity of interlayer competition in Japan had a positive association with the percentage of newshole in news pages given to national coverage. Unlike findings in Western countries, this study found the impact of interlayer competition on all three of the geographical emphases of news coverage: local coverage, national coverage and international coverage. It could be said that the decline in the percentage of newshole given to local coverage was translated into increased national and international coverage.

These results suggested that local Japanese newspapers redistributed content in newspapers as interlayer competition increased, which is an important finding of this study. The intensity of competition resulted in a change in content distribution in newspapers by substituting national and international coverage for local coverage. Because competition with national newspapers needed to provide diverse information for a large heterogeneous population, local newspapers provided a variety of types of information by increasing news space and redistributing content, which appeared to be related to substitutability of local newspapers for national newspapers. Managers in Japan appeared to have decided to be good substitutes for, rather than complements to, national newspapers, which, by changing content distribution, tended to have a larger

geographic coverage areas. This decision in Japan was very unusual in the United States, but it was consistent with a previous study in Japan. Cho and Lacy study (2002) on interlayer competition in Japan found that local Japanese newspapers were substitutes for national papers in terms of penetration. There was a strong negative relationship between the penetration of local newspapers and that of national papers in Japan. Thus, when competition with national newspapers was high, local newspapers expanded their news coverage beyond their local prefecture.

The unusual substitutability of local newspapers for national newspapers in Japan may reflect an unusually high subscription rate. Japan's subscription rate is 1.34 newspapers per household (Nihon Shinbun Kyokai, 1999a; Ministry of Home Affairs, 1999), while the U.S. rate is .55 (Editor & Publisher Co., 1999). It can be said that Japan's subscription rate has already reached the saturation point, which means that if a newspaper is to expand a market, other firms in the same market, in general, have to lose their subscribers. A firm trying to expand its market share must be a substitute for its competitors, regardless of competition from other papers. There is less chance of finding new subscribers for newspapers whose readers already subscribe to more than one newspaper. Thus, managers at local newspapers decided to allocate news space to coverage other than local, and to be substitutes for national papers. Their efforts to be substitutes for national newspapers may be stronger than the efforts of newspapers to be substitutes for their competitors in the United States.

Overall, this study of local Japanese newspapers supported the impact of interlayer competition on news coverage. It was consistent with many of the existing studies although the effects did differ from those in the United States in some ways.

Like those in Western countries, local Japanese newspapers aimed to be substitutes for competing newspapers to increase circulation and advertising revenue. At the same time, they differentiated themselves by providing information the competitors did not provide.

A few other interesting conclusions follow from this study:

1. Local Japanese newspapers reassigned content distribution when competition was high, which is unusual in the United States.
2. Interlayer competition had an impact on the three geographical emphases of news coverage. The decline in the percentage of the newshole given to local coverage was translated into national and international coverage.
3. Local newspapers increased national and international copy as interlayer competition increased, which was due to the fact that local newspapers were substitutes for national newspapers.

While this study has some interesting implications for the interlayer competition, it also is limited. It deals only with local daily newspapers. Additional research is needed to see whether similar relationships exist in other types of newspapers in Japan.

NOTES

1. *Nihon Keizai Shimbun* is a business newspaper whose characteristics are similar to *The Wall Street Journal* in the United States. Since the unit of analysis of this study was general daily newspapers, *Nihon Keizai Shimbun* were excluded from the analysis.
2. Definitions of newspapers follow previous studies in the United States due to the comparability of newspaper research in Japan with that in the United States. Some scholars in Japan distinguish four regional papers from the other prefectural newspapers. This research, however, considered those two types of newspapers as local newspapers because the definition of regional was vague and the distribution pattern of regional papers was similar to that of some prefectural papers, such as *Kyoto Shimbun*, *Kobe Shimbun*, or *Kahoku Shimpō*.
3. The chosen dates and days were: Sunday, June 20; Monday, February 8; Tuesday, April 20; Wednesday, May 12; Thursday, January 21; Friday, June 18; and Saturday, March 27.
4. This sample size for the reliability check was calculated using a formula introduced by Riffe, Lacy and Fico (1998: 104-134). The confidence level desired in the test was set at 95%.

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