MARKET CONCENTRATION IN TURKISH JOURNALISM SECTOR

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Abstract

Concentration is a situation in which market structure of a sector is controlled by a few firms. At the present time, many analyzing methods such as Herfindahl-Hirschman and N-Firm Concentration Indexes are used to determine market structure. According to market concentration indexes, higher concentration level means more monopolistic market structure, lower concentration level means more full competitive market structure.

In this study concentration levels of media groups in Turkish journalism sector within the scope of traditional journalism and internet journalism was analyzed via N-Firm Concentration and H-H Indexes. As a result of the study, it's seen that first four biggest media groups have monopolistic competition in internet journalism sector, and oligopol structure in traditional journalism sector. According to H-H index analyze, there is monopolistic competition in the sector.

Keywords: *maket concentration, Turkish journalism, internet journalism, Turkish media groups, concentration indexes*

1. Introductıon

In Turkey the basic function of journalism is to give information. Today there are many media groups which fulfill the function of giving information (Tokgöz 1981, 5). Primary objective of these media groups or firms is to get profit from this job. Highlighting the society is only an instrument, not a purpose; exactly like a baker's purpose is to return profit instead of providing people good and healthy food. Economically, a newsperson is like a firm who works for profit maximization and it's success level can be determined with it's profit level (Demir 1996, 79-84). Thus, the more journalism sector gets monopolistic, the more a newsmaker or a media group gets stronger, takes more ads and increases it's revenue.

Market concentration indexes provides beneficial and practical indicators to measure market power. Also these indexes become more beneficial when determining a firm's market power if they are used with other datas. Market concentration indexes are measured easily and give clues about how competitive a market is. If the number of firms in a sector increase, concentration diminishes and it augments the competition level. Firms' power of influencing the market variables decrease in direct proportion to competitiveness of the market structure. For this reason, it's important to know market concentration rates to determine how competitive a market is (Durukan et al. 2009, 76-77).

In the first part of this study the concept of concentration and concentration in media sector was discussed, followingly market structure of Turkish journalism sector was analyzed using N-Firm concentration and Herfindahl-Hirschman Index methods.

2. Conceptual framework of concentratıon

As its common definiton, concentration is the situation that production and pricing behaviours are controlled by a few firms. In a broad sense, concentration is the market structure-analyzing method used for measuring unfair competition among the firms in a sector or industry (Schmalensee 1988, 648). According to Varona et al. (2002, 8), concentration is the operation which makes the controls of two or more independent enterprise monopolise consistently. The situation which market behaviours are controlled by only one firm is called monopoly, the situation which market

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behaviours are controlled by two or more firms is defined as oligopoly (Güneş et al. 1997, 34). Taking over a firm by another firm involves the most important part of concentration. Also this concept includes changes in the structure and characteristics of control (Cook and Kerse 2000, 24). Market concentration differs according to market types and competition forms. In a monopolistic structure concentration is very high and competition is very low in a market, but vice versa in a full competitive market structure (Baş 2004, 111).

In media sector, concentration is generally divided into 3 groups as horizontal, vertical and cross concentration (IRIS Special 2011, 2):

Horizental concentration happens when firms in the same sector merge. Generally these mergings are seen among radio and tv broadcasters, book, newspaper and magazine publishers and filmmakers in international communication. Rupert Murdoch's Sun, Times, News of the World ve Sunday Times and Doğan Media Group's ownership of five newspapers in Turkish journalism sector are the examples of horizental concentration (Özokçu 2011, 17). The reason why horizental concentration has been increasing in recent years is the possibility to operate all channels with same staff and remove marginal costs.Horizental mergings reduce the number of rival firms and remove the competition (Özdurdu 2011, 48).

Vertical concentration is defined as a firm dominates in every stage (from production to consumption) by ownership in an industry. For example, American film industry has a voice in filmmaking, distribution, studios and movie theatres, briefly in all phases (Sayılgan 2009, 82).

As a result of vertical concentration, market structure doesn't change directly because number of firms don't change at the sub-section and upper part of production chain. On the other hand, vertical concentration has negative effects for competition. **Foreclosure effect** is the leading effect. For example, if assignee firm is a customer of acquired firm, other firms no longer will sell goods to assignee firm. In addition to that, vertical concentration has many negative effects on competition such as making new entries to a market difficult and providing suitable environment for mergers (Waldman and Jensen 1998, 506).Especially if a one of the parties have power in its own market, new firm, which was formed as a result of vertical concentration, may push it's rival firms out of the market (Bishop and Walker 2002, 288).

Cross concentration emerges when big firms, which strenghten their controls over a significant means by the help of merger and acquisition, canalize different sectors and broaden their control area (Adaklı 2006, 37).In other words, ownership and integration of capital are the point in question among media components like television broadcasters, press and internet service providers, for example investments and ownerships are the point in question in sectors like automotive and finance (Avşar 2004, 90).

Cross concentration can be defined as the situation that a firm mergers in an industry which is more different than its own industry; but although the firm has the biggest share of resources and operations in its own industry, in other industries it is only a supplier or a user of products. As a result the firm doesn't make horizental or vertical merging. If cross concentration happens after a decline at operation costs, this situation may increase market efficiency (Demirgil 2008, 34).

Cross concentration developed in media sector especially by 2000s in Turkey. Thanks to cross concentration, media sector preserves its oligopol structure and eliminates the chance for new entries to the media sector (Özokçu 2011, 19-20).

3. Literature research

In the literature it's seen in the studies about market concentration that generally this subject was analyzed in many sectors, and concentration levels were analyzed according to production, income and cost and finally measured by N-Firm Concentration Rate and Herfindahl-Hirschman Index methods.

In the studies, it's stated that concentration is one of the most frequent situation in developed and developing countries's markets and this situation is a major obstacle for competition (Baş 2004,

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110).Recently food security and quality control regularizations made mergers and acquisitions increase in the food sector in Turkey. Therefore number of giant companies in food sector increased and concentration rates of both food and retail sector augmented (Koç et al. 2008, 105-106).

In a study about cement sector in Turkey, N-Firm concentration analyze and Herfindahl-Hirschman analyze were applied. According to first analyze, market structure is a weak oligopolistic but it is more competitive, according to second analyze (Polat 2007, 97-116).But firms were assessed separately in this analyze..If they were analyzed as holding companies, concentration level could be higher.

Durukan and Hamurcu (2009, 84) made a study of market concentration in mobile communication and compared market structure in Turkey with Central Asian Turkish Republics' (Kazakhstan, Turkmenistan, Kyrgyzstan, Uzbekistan, Tajikistan) market structures.As a result of the analyze with the help of H-H index method, a non-competitive, over concentrated oligopolistic structure in Turkey, Kazakhstan, Kyrgyzstan and Turkmenistan; a mid-concentrated oligopolistic market structure was found out. Therefore some measures should be taken for easiness of new market entries in all six countries.

There are studies which argues its possible to get different results when concentration levels are analyzed according to production, income and cost. In a study on American advertising and marketing sectors, it's stated that these two sectors have the lowest share in total industry income but they have the biggest CR-4 concentration share in 2002 (Silk and King III 2008, 30).

Abdel-Raouf (2010, 398) stated in his study that international trade plays a crucial role in reducing CR-4 concentration rate to reflect the market structure better. As a matter of fact adjusting the published concentration ratio for international trade reduces the percentage of concentrated manufacturing industries (with $CR_4 > 60\%$) from 23 % to 11 % in 2002 and from 20 % to 11% in 1997 in USA.

In a study about media sector (Özdurdu 2011, 55-62) concentration analyzes were made according to Tv ratings, daily circulation and television advertising expenditures in Turkey. In the study both N-Firm concentration and Herfindahl-Hirschman methods were applied. As a result an oligopolistic market structure was confirmed in this sector. Also it was emphasized that advertising expenditures have been decreasing in journalism sector, but internet and television advertising expenditures have been increasing recently.

Bates (1993, 3-21) measured concentration levels of American local television market via H-H Index. As a result concentration is decreasing constantly in local television market because of the fact that broadcasting markets have been augmenting and artificial obstacles to the markets have been removed recently.

4. Application

On a standard measurement in order to determine the concentration level hasn't been agreed yet. Nevertheless, there is a wide range of selection among different concentration measurements. N-Firm Concentration Index, Herfindahl-Hirschman Index, Entrophy Index, Hall-Tideman Index, Linda Index and Gini Index are the most commonly used methods. But in empirical studies, the most widespread methods are N-Firm Concentration Index and Herfindahl-Hirschman Index (Yıldırım et al. 2009, 40-45).

Concentration level in Turkish Journalism Sector was determined via N-Firm Concentration Method Index and H-H Index.

N-Firm Concentration Rate (CR_N) shows aggregate market share of the biggest N number of firms in an industry.CR_4 states total shares of the biggest four firms and CR_8 states total shares of the biggest eight firms (Yolaç 2010, 1089).

By the help of formula (1), concentration rate index based on newspaper sales in Turkey was measured. In the study, concentration rates of first four and first eight firms in media sector were measured by the help of daily newspaper sales at Table 1 and shares of media groups at Table 2.

CR$_N$=$\div$ (1)

N-Firm Concentration Rate (CR$_N$);

CR$_N$: Concentration rate for ''N''number of firms

X$_i$: Value of ''x'' for firm ''i'', when firms are ranged one under the other according to ''x''.

X: Total value of ''x'' for all firms in a market

In practice, according to CR$_N$ concentration rate; it's accepted that there is low concentration if concentration level is between 0 and 30 (perfect competition), medium if it's between 31 and 50 (monopolistic competition), high if it's between 51 and 70 (oligopolistic structure) and very high if it's between 71 and 100 (Polat 2007, 100).

Similiarly, Herfindahl- Hirschman Index was measured based on newspaper sales in Turkey using Formula (2).

Herfindahl Hirschman Index is measured as the sum of squares of the market shares of firms.

$$H = \sum_{i=1}^{n} P_i^2 \quad (2)$$

P_i^2 ; sum of squares of firms' market shares

This index is accepted as a good measure because it not only includes all distribution but also is critical between the changes of firm sizes and number of firms in a market. H-H Index has been one of the most popular method of determining market structure since 1980s. In practice, H-H Index shows that there is perfect competition if it's smaller than 1000 (H-H < 1000), monopolistic competition if it's between 1000 and 1800 (H-H; 1000-1800) and finally there is oligopolistic market structure if it's higher than 1800 (H-H > 1800) (Parkin 2003, 203).

Average daily sales of newspapers between 26th of November 2012-2nd of December 2012 were shown[1] below at Table-1.

Table-1: Daily amount of newspapers sold

NEWSPAPER	SALE	NEWSPAPER	SALE
ZAMAN	1.046.273	TARAF	53.028
POSTA	456.196	ŞOK	52.899
HÜRRİYET	435.278	YENİ ASYA	51.448
SABAH	330.354	CUMHURİYET	50.827
SÖZCÜ	281.095	YENİ ÇAĞ	50.479
HABERTÜRK	210.988	YURT	49.866
P. FOTOMAÇ	197.095	YENİ AKİT	34.861
FANATİK	174.917	MİLLİ GAZETE	33.960
MİLLİYET	168.398	YENİ MESAJ	30.231
STAR	135.557	YENİ ASIR	25.453
TAKVİM	135.460	YENİ RADİKAL	24.421
TÜRKİYE	126.416	SOL GAZETESİ	16.129
VATAN	122.241	MİLAT	10.798
BUGÜN	108.514	TODAY'S ZAMAN	9.843
AKŞAM	101.397	BİRGÜN	7.356
YENİ ŞAFAK	100.775	ORTADOĞU	6.546
GÜNEŞ	89.086	EVRENSEL	5.967

[1] http://www.medyatava.com/tiraj.asp (06.12.2012).

AMK	72.823	H. DAILY NEWS	5.191
AYDINLIK	59.705	HURSES	2.118
TOTAL 4.873.989			

Aggregate sales of newspapers according to media groups and shares in this sector were shown at Table-2.

Table-2: Sector Shares of Newspapers of Media Groups

Media Groups and Newspapers	Newspapers Sold	Sector share (%)
Doğan (Hürriyet, Posta, Fanatik, Yeni Radikal, H.Daily News)	1.096.003	22,4
Feza (Zaman)	1.056.116	21,6
Çalık (Sabah, Takvim, Yeni Asır, P.Fotomaç)	688.362	14,1
Sözcü (Sözcü, AMK)	353.918	7,2
Demirören (Vatan, Milliyet)	290.639	5,9
Ciner (Habertürk)	210.988	4,3
Çukurova (Akşam, Güneş)	190.483	3,9
Star-Sancak (Star)	135.557	2,7
İhlas (Türkiye)	126.416	2,5
İpek (Bugün)	108.514	2,2
Albayrak (Yeni Şafak)	100.775	2,0

When H-H Index was analyzed according to sector shares of media groups' newspaper sales using Table 1 and Table 2;

H-H= $\sum_{i=1}^{11} X_i^2 = 22,4^2 + 21,6^2 + 14,1^2 + 7,2^2 + 5,9^2 + 4,3^2 + 3,9^2 + 2,7^2 + 2,5^2 + 2,2^2 + 2,0^2$
H-H= 501,76 + 466,56 + 213, 16 + 51,84 + 34,81 + 18,49 + 15,21 + 7,29 + 6,25 + 4,84 + 4,00
H-H= 1324, 21

According to average daily sales, H-H Index value is between 1000-1800. Thus it can be said that market structure for this sector is monopolistic competition.

When concentration was analyzed in Turkish journalism sector based on media groups' newspaper sales by the help of N-Firm Concentration Index;

When first four media groups namely Doğan, Feza, Çalık and Sözcü were analyzed in terms of their newspapers' selling rates, it's seen that concentration rate of the biggest four firms in the market (CR_4) is 65,3 %. According to CR_4 analysis, if total concentration rate of the biggest four firms is between 51-70 % ,it's accepted that market structure is oligopolistic. All in all, there is oligopolistic structure in Turkish journalism sector.

When first eight media groups namely Doğan, Feza, Çalık, Sözcü, Demirören, Ciner, Çukurova and Sancak were analyzed, it's seen that concentration rate of the biggest eight firms in the market (CR_8) is % 82.1. According to CR_8 analysis, it can be concluded that there is a very high concentration level in Turkish journalism sector.

COMSCORE measurement of news category sites on internet[2] shows the number of visitors to websites in Turkish Internet Journalism sector. At Table-3, number of visitors to internet sites in news category in March 2012 were shown.

Table-3: Number of Visitors in March 2012

March, 2012	Number of Visitors(x1000)	March, 2012	Number of Visitors (x1000)
Milliyet.com.tr	10.973	Yazete.com	678
Hürriyet.com.tr	9.711	Beyazgazete.com	668
Mynet News	8.703	Haberseninle.com	665
Haberler.com.tr	5.826	Yenisafak.com.tr	645
Sabah.com.tr	5.014	Stargundem.com	644
Haberturk.com	4.605	Kenthaber.com	610
Gazetevatan.com	3.812	Gazeteoku.com	601
Ensonhaber.com	2.970	Focushaber.com	571
Sondakika.com	2.939	Haberform.com	546
İnternethaber.com	2.837	Yahoo News Network	543
Haber365.com	2.537	Haber50.com	538
Posta.com.tr	2.491	Haber5.com	526
Ntvmsnbc.com	2.369	Nuveforum.net	502
Haber7.com	2.268	Anadoluhaber.net	493
Radikal.com.tr	1.750	Sonsayfa.com	472
Cnnturk.com	1.614	Ankarahaber.com	467
Dmi.gov.tr	1.604	Msnweather	446
Gazete5.com	1.593	Cumhuriyet.com.tr	446
Haber3.com	1.546	HPMG News	445
Haber365.net	1.403	Haber01.com	433
Medyafaresi.com	1.367	Porttakal.com	425
Zaman.com.tr	1.363	Haberaktuel.com	413
Gazetevan.com	1.313	Ahaber.com.tr	396
Stargazete.com	1.039	Taraf.com.tr	392
Takvim.com.tr	974	Vatan.tc	390
Bugün.com.tr	934	Habera.com	390
Haber.pro	924	Trthaber.com	389
Havadurumu15günlük.net	920	Yandex news	373
Habervitrini.com	874	Enerjigundem.com	373
Aksam.com.tr	835	BBC	364
Ok.net	831	Ozgunbakis.com	362
Songazetehaberleri.com	805	Haberbaz.com	361
Medya73.com	804	Netgazete.com	360

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[2]   http://www.medyafaresi.com/haber/80411/medya-iste-haber-sitelerinin-gercek-tiklanma-oranlari.html (08.12.2012)

Aktifhaber.com	784	Scroll.com.tr	358
Samanyoluhaber.com	762	Nethaberci.com	354
İhlassondakika.com	760	Havadurumu.com.tr	348
New York Times Digital	741		

Number of visitors of media groups' websites in Internet journalism sector, which has an increasing importance recently, were shown at the table below.

Table 4: Shares of Media Groups' Websites in News Category

Groups	Number of Visitors (x1000)	Sector Share (%)
Doğan	15566	14,2
Demirören	14785	13,4
Çalık	6384	5,8
Ciner	4605	4,2
Albayrak	2913	2,6
Doğuş	2369	2,1
Feza	2125	1,9
Sancak	1039	0,9
İpek	934	0,8
İhlas	760	0,6

According to Table-4, market shares of media groups' websites in news category, total concentration rate of first four media groups (Doğan, Demirören, Çalık and Ciner) is 37,6 %.Thus, there is a monopolistic competitive structure in Internet journalism sector and it's close to perfect competition.

When sector shares of media groups' websites which were shown in Table-4, were analyzed using H-H index;

$$H\text{-}H = \sum_{i=1}^{10} X_i^2 = 14,2^2 + 13,4^2 + 5,8^2 + 4,2^2 + 2,6^2 + 2,1^2 + 1,9^2 + 0,9^2 + 0,8^2 + 0,6^2$$
$$H\text{-}H = 201,64 + 179,56 + 33,64 + 17,64 + 6,76 + 4,41 + 3,61 + 0,81 + 0,64 + 0,36$$
$$H\text{-}H = 449,07$$

H-H Index value of Internet web sites in news category in March 2012 is at perfect competition level. It's main reason is that only websites of media groups were included in H-H measurement, and independent internet websites weren't considered in that index.

Conclusions

Newspapers, which are the oldest mass communication tools, have been still keeping their importance. Main purpose of newspapers is to produce news. Accordingly, news carries value economically and media groups, which are the owners of newspapers, try to dominate the market in order to maximize their profits.

Using CR_4, CR_8 and Herfindahl-Hirschman Index, market shares of media groups' newspapers were analyzed by the help of newspapers sold in traditional journalism sector in Turkey. Similiarly, market concentration of news websites of media groups was measured by the help of number of visitors to those websites in Internet journalism sector.

According to daily newspaper sales, total concentration rate of four biggest media groups in the market is between 50-70 %, so this sector's market structure seems to be oligopolistic. In internet journalism sector, total concentration rate of first four media groups is 37,6 %. In other words a

monopolistic competition is dominant in this sector. The reason why internet journalism sector is more competitive than traditional journalism sector is that internet journalism sector is a newly developing sector in Turkey and also many websites on news category, which acts independently from media groups, have lots of visitors and show impressive performance in cyber world.

According to the results for H-H Index, H-H value occured between 1000 and 1800 for daily average newspaper sales. Therefore there is a medium-concentrated, monopolistic competitive structure in that sector.

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