Like other businesses, media companies have a right to pursue profit as a private organization. Whether operating in radio, local television, network television, cable, newspaper, or magazine, the essence of business is the logic of the commercial market (McManus, 1994). Based on this notion, it is natural that media companies have merged to produce multi-media conglomerates in their effort to seek more profit. In fact, a wave of mergers and acquisitions and the development of new digital technologies have transformed the media landscape. For example, Walt Disney purchased Capital Cities/ABC and its ten television stations, 21 radio stations, and interest in several cable networks for $19 billion in 1995 (Albarran & Dimmick, 1996). Subsequent to this acquisition, Time Warner made another $8.5 billion acquisition by absorbing Turner Broadcasting Company, a parent company of CNN and other popular cable networks in 1996. In 1999, Viacom announced its merger with CBS. The huge deal combined CBS’ television network, its TV & radio stations, and several Internet sites with Viacom’s well-known cable channels, movie and television productions, publishing enterprises, theme parks, etc. With large mergers such as these, the 1990s alone saw well over $300 billion in major media deals (Croteau & Hoynes, 2001) that continued into the new century. On January 10, 2000, America Online Inc. (AOL) announced it would buy Time Warner Inc., creating a media giant of unprecedented size. The $166 billion deal was the biggest corporate merger ever. It was four times as big as Viacom’s $38 billion acquisition of CBS in 1999.

At present, one media conglomerate or another owns virtually everything from production to distribution of all media products/services, such as newspaper, magazine, book, broadcasting, cable, music, movie, and the internet through diverse business actions. It has always been assumed that a newspaper article might be expanded to a magazine article that could become the basis for a hardcover book, setting the occasion for a paperback, leading to a TV series and, finally, a movie. At the same time, the product might enjoy supporting publicity from its parent company’s news outlets. This conceptual advantage, called “synergy,” has induced the diversification of many media companies.

The continuous diversification activities of media firms can be understood as a strategy to earn more money. This, then, begs the question: Does the repeated diversification through mergers and acquisitions result in more profit expected by the media conglomerates? Some believe that investors who analyze mergers pay too much attention to short-term earnings gains and ignore the fact that these gains come at the expense of long-term prospects. However, how long is long term? Before realizing the long-term effect, who provides the money to support these media companies? Eventually, the loss of media firms might be compensated with public money as there is a possibility that media companies may increase the price for their products to make up for the loss from mergers and acquisitions.

In fact, nearly all major media companies are commercial corporations whose primary function is creating

The Bigger, the Better?

Measuring the Financial Health of Media Firms

by Jaemin Jung, University of West Florida, U.S.A.

This study examined the degrees of product diversification of media conglomerates since the Telecommunications Act of 1996 and tested the impact of product diversification of the firms on their financial health. The strategy of related product diversification enables firms to gain market power and synergy effect, then improves financial performance. Based on that assumption, for a sample of 26 media firms from 1996 to 2002, this study conducted a regression analysis to test the hypotheses. The results showed two contradictory curvilinear models. First, revenue, EBITDA and sales growth rates revealed a U-shaped relationship with diversification. That is, performance decreased as firms shifted from concentrated business strategies to related diversification, but performance increased as firms changed from related diversification to unrelated diversification. On the other hand, financial efficiency variables measuring management effectiveness or profitability (ROS, ROA and ROE) and stock market evaluation (earnings per share) showed an inverted U-shape relationship. Thus, the unrelated diversification led to a decrease in financial efficiency.

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profits for owners or stockholders. Even noncommercial and not-for-profit media need to produce profit that can be used to develop their content and to operate their organizations. If media firms are not able to operate profitably, they will fall into a spiral of decline that makes it difficult to sustain their operations and offer quality content (Picard, 2002). Therefore, the need of the yardstick measuring the financial performance of media companies is an unavoidable reality. The goal of this study was to explore the degree of product diversification of the global media corporations and to examine the impact on firm financial health. In other words, this study attempted to explain the relationship between diversification and financial performance.

**Literature Review**

**Product Diversification**

When a firm chooses to diversify its operations beyond a single industry and to operate businesses in several industries, it is pursuing a corporate strategy of product diversification (Hitt, Ireland, & Hoskisson, 2001). Through this strategy, the firm engages in the manufacture and sale of multiple diverse products. Most firms implement a diversification strategy to enhance the strategic competitiveness of the entire company. This position rests upon several assumptions, including those derived from market power theory, internal market efficiency and synergy arguments (Grant, 1998; McCutcheon, 1991; Scherer, 1980).

**Market Power Advantages**

Diversified firms can exploit market power advantages that are mostly not available to their undiversified counterparts (Caves, 1981; Hitt, Ireland, & Hoskisson, 2001; McCutcheon, 1991; Scherer, 1980; Sobel, 1984). For example, broadcasters with a large audience share or market share are able to command a premium in the cost-per-thousand rates that they charge advertisers (Doyle, 2002).

Another approach to creating value by gaining market power is the strategy of vertical integration, in which a firm derives a power of reciprocal buying and selling. Greater diversification in more factor and product markets increases opportunity for such reciprocity (Grant, 1998). For media industries, it is possible to integrate the stages in the vertical supply chain, which includes content creation (gathering news stories, making television news), packaging (assembling into a product like newspaper or television service) and distribution (delivering to consumers). No single stage is more important than another. Ultimately, the interdependent relation of different phases in the supply chain induces media firms to pursue vertical integration between the stages (Doyle, 2002).

**Market Efficiencies**

The diversified firm has much greater flexibility in capital formation because it can access both externally and internally generated resources (Lang & Stulz, 1994; Stulz, 1990). That is, losses can be funded through cross-subsidization whereby the firm taps excess revenues from one product line to support another (Berger & Ofek, 1995; Meyer, Milgram, & Roberts, 1992; Scherer, 1980). Thus, diversification can generate efficiencies that are unavailable to the single-business firm (Gertner, Scharstein, & Stein, 1994). In a media situation, diversified media firms can afford to absorb the cost of an expensive movie flop through cross-subsidizing from other booming business units. Therefore, diversified media firms can withstand short-term losses and wait for the next megahit.

**Synergy**

Synergy exists when the value created by business units working together exceeds the value those same units create working independently (Hitt, Ireland, & Hoskisson, 2001). The element of synergy involves developing a single concept for various media. For example a children’s story may be packaged as a comic book, movie, music label, television cartoon, and computer game. By doing this, media conglomerates can take advantage of simultaneous revenue streams, thereby generating as much profit as possible from a single idea (Croteau & Hoynes, 2001).

Another aspect of synergy involves cross-promotion. Media conglomerates have placed more emphasis on the promotion of their own subsidiaries’ products such as television programs or movies (Jung, 2001, 2002; McAllister, 2000; Williams, 2002). The result is that conglomerates, with their enormous resources and diverse holdings, are economically able to develop and promote projects in ways that smaller competitors simply cannot match.

**Linkage between Product Diversification and Performance**

**Linear Model**

Industrial organization considered the relative performance of diversified and undiversified firms and proposed that diversification may be associated with concomitant increases in performance. However, empirical research has revealed conflicting results. Gort (1962) was one of the first to examine the profitability of diversified firms. He analyzed 111 large U.S. corporations over the years 1947-1957 and showed that there was no significant correlation between profitability and diversification. In a study of 104 U.S. food-processing firms, Arnould (1969) also concluded that no significant relationship existed between diversification and profitability. On the other hand, Carter (1977) presented evidence that diversified firms outperform their specialized counterparts. However,
Markides (1992) delineates other costs of diversification with various firm-specific variables, whenever profitability entered at a significant level, it entered with a negative sign.

Lang and Stulz (1994) also showed that financial market and firm diversification were negatively related throughout the 1980s. In general, firms that chose to diversify were poor performers relative to firms that did not.

Beginning with Gort (1962), industrial economists spawned decades of research based on the premise that diversification and performance are linearly and positively related. However, they found no evidence supportive of the view that diversification provides firms with a valuable asset.

Curvilinear Model

Later approaches from the perspective of strategic management focused specifically on performance differences between related and unrelated diversifiers showing a more systematic paradigm (Christensen & Montgomery, 1981; Palich, Cardinal, & Miller, 2000; Palich, Carini, & Seaman, 2000; Rumelt, 1974, 1982; Varadarajan & Ramanujam, 1987). The most common theoretical rationale suggesting the superiority of related diversification is derived from economies of scope (Markides & Williamson, 1996; Seth, 1990). Specifically, related diversifiers generate operational synergies by designing a portfolio of businesses that are mutually reinforcing. Since they are related in some way, units are able to share resources or boost revenues by bundling products, enjoying a positive brand reputation, etc. (Barney, 1997). While benefits accrue to diversification, at some point these efforts are also associated with major costs. For example, Grant, Jammime and Thomas (1988) recognize the growing strain on top management as it tries to manage an increasingly disparate portfolio of businesses. Markides (1992) delineates other costs such as coordination costs and other diseconomies related to organizational inefficiencies of conflicting “dominant logics” between businesses and internal capital market inefficiencies.

Taken together, these studies indicate that moderate levels of diversification yield higher levels of performance than either limited or extensive diversification. Thus, they provide support for an inverted-U curvilinear model wherein performance increases as firms shift from single business strategies to related diversification, but performance decreases as firms change from related diversification to unrelated diversification (Bettis & Hall, 1982; Christensen & Montgomery, 1981; Geringer, Beamish, & daCosta, 1989; Geringer, Tallman, & Olsen, 2000; Grant, Jammime, & Thomas, 1988; Kim, Hwang, & Burgers, 1989; Palepu, 1985; Palich, Cardinal, & Miller, 2000; Palich, Carini, & Seaman, 2000; Sambharya, 1995; Tallman & Li, 1996).

Diversification in the Media Studies

Compared to fervent research in the business management area, diversification research in media studies has rarely been seen in the literature. As an initial study, Dimmick and Wallschlaeger (1986) researched the level of diversification of television network parent companies. The results indicated that the least diversified parent companies were most active in new media ventures. Albarran and Porco (1990) measured diversification of corporations involved in pay cable by using the formula developed by Dimmick and Wallschlaeger (1986). Their results were consistent with the previous research that all firms appear to utilize diversification as a means to limit resource dependency and ensure organizational survival. Both studies dealt with the concept of product diversification.

In contrast, Picard and Rimmer (1999) introduced the concept of geographic diversification as well as product diversification. They sought to determine whether the degree of diversification affected the financial performance of newspaper firms during economic downturns. They concluded that non-newspaper diversification reduced the effects of the recession. The introduction of multiple measures of performance such as growth rates and profitability was another contribution to the diversification literature in media studies.

Because of the enormous size and a wave of mergers across the media industry, recent studies have attempted to analyze the structure and performance of media conglomerates. For example, Albarran and Moellinger (2002) examined the biggest six media conglomerates’ structure, conduct, and performance following the industrial organization model. They focused more on the common strategies of six media giants than on the differences. Powers and Pang (2002) examined the diversification and performance of eleven media conglomerates before and after the Telecommunication Act of 1996. The study provided an alternative analysis of the premise that media conglomerates must be harmful to free speech by arguing that the number of news outlets has increased since the Act. Shaver and Shaver (2003) examined the activities of eleven companies over a ten-year period and concluded that operating margins were negatively correlated to the degree of business diversity. In other words, greater margins were realized as companies became more concentrated within their core industries rather than diversifying into other areas.

Chan-Olmsted and Chang (2003) reviewed the diversification patterns of seven leading media companies in terms of product/international dimension and proposed an analytical framework for examining the factors influencing these strategic choices. They also explained how the medium-diversifiers yielded the best financial performance. However, because of the lim-
RQ 1: What are the degrees of diversification in the extent (total degree) of product diversification of the media conglomerates?

RQ 2: What are the degrees of diversification in the direction (related degree) of product diversification of the media conglomerates?

The argument in the industrial organization literature linking diversification to profitability revolves around the notion of market power (Caves, 1981; Markham, 1973). Vertical mergers may be interpreted as a means to exclude rival firms from the market by reducing either their supply of raw materials or their outlets. The reason for choosing vertical integration is then clearly market foreclosure. In fact, the ownership of program services by cable MSOs has historically encountered problems. For example, MSOs have occasionally discriminated against competing program services by refusing carriage, charging higher retail prices for competing services and providing less favorable channel positions. MSOs have also refused to provide the program services in which they had an interest to competing distribution outlets such as SMATV operators and MMDSDs broadcasters (Owen & Wildman, 1992). Because of its ability to acquire and exercise market power, a diversified firm is alleged to be able to subvert market forces through mechanisms such as cross-subsidization, predatory pricing, reciprocity in selling and buying, and barriers to entry.

Another mechanism that is expected to allow diversified firms to sustain higher profits is efficiency gains. Diversification deals may generate economies of scope among the different media industries. Economies of scope occur when the cost of jointly producing two different products is less than the cost to produce each of them independently (Gertner, Schriftstein, & Stein, 1994; Lang & Stulz, 1994). Hence, a single idea, first materialized in a film for example, may then be used to publish a CD of the film’s music, a book of the scenario, a video game, Web site etc. Disney exploits these kinds of synergies very efficiently. In the same vein, Time Warner’s television channels, newspapers, and magazines may promote AOL through advertising and vice versa.

The above arguments lead to the rationale that the more diversification a firm has in its operations, the better its chances of extracting healthier financial performance increase. Considering the multiple aspects of financial health, this study employed both the financial performance (revenues, sales growth rates, and EBITDA) indicating relative power and magnitude of a firm and the financial efficiency (ROS, ROA, ROE, and EPS) indicating management effectiveness/profitability and stock market evaluation. From the perspective of industrial organization, the first two hypotheses on the relationship between the extent (total degree) of product diversification and financial health were proposed as follows:

H1a: A firm’s extent (total degree) of product diversification is positively related to firm financial performance.

H1b: A firm’s extent (total degree) of product diversification is positively related to firm financial efficiency.

As long as product diversification stays within the scope of a firm’s strategic resources and capabilities, it will provide increasing profit margins. However, excessively high or unrelated product diversification depresses firm performance, as costs outstrip returns to strategic resources (Bengtsson, 2000; Chen, 1998; Geringer, Tallman, & Olsen, 2000; Jones & Hill, 1988; Prahalad & Bettis, 1986; Tallman & Li, 1996; Williamson, 1975). Obviously, a company would be expected to profit from related diversification by economies of scale and scope that should generate more synergistic benefits than in the case of unrelated diversification that have no relationship other than becoming part of one overarching system of corporate control. In general, the resource-based strategic management literature strongly argues for strategic relatedness within a conglomerate when it comes to diversification strategy (Chatterjie & Wernerfelt, 1991). Based on strategic management perspective, an inverted-U curvilinear relationship is expected...
between the direction (related direction) of product diversification and financial health.

H2a: A firm’s direction (related degree) of product diversification has an inverted-U shape relationship with its financial performance.

H2b: A firm’s direction (related degree) of product diversification has an inverted-U shape relationship with its financial efficiency.

Methods

Sample

In order to test the hypotheses, the top 25 media companies as ranked by the industry journal Broadcasting & Cable on the basis of 2001 media revenues were chosen (see Appendix 1). Although Bertelsmann was not listed on the list, the firm was added because of its revenue size and position as one of most frequently mentioned global media leaders.

Data for the top 26 media firms were collected over a seven-year (1996-2002) period. The enactment of the Telecommunications Act of 1996 struck down the walls between the media and telecommunication industry by allowing firms to cross the boundary. It also removed the limitation of television and radio station ownership by a single entity and raised the ownership cap. Consequently, the law has accelerated a wave of mergers and acquisitions in the media and telecommunications industry. Therefore, the year 1996 was selected as the starting point of the analysis.

182 observations can be pooled by gathering the data for seven years of observation for the top 26 firms. However, the sample size was more than the estimated number of observations because of ownership change. For example, the AOL-Time Warner merger took place in 2000. Therefore, the AOL and Time Warner were treated as different companies before that year. The diversification and performance data for two firms were gathered separately and included as the different samples from 1996 to 1999. For this reason, 16 samples were added (Time Warner, 1996-1999; CBS, 1996-1999; Times Mirror, 1996-1999; Seagram, 1996-1999). On the other hand, because Vivendi was an environment business firm before it acquired Seagram (parent company of Universal Studio and Polygram) in 2000, the data of Vivendi from 1996 and 1999 were not included in the analysis. In case of Discovery, the researcher failed to collect appropriate data for the period. In total, 187 samples were used for the final analysis.

Data Source

The major archival data source for diversification measurement is The Directory of Corporate Affiliations, which includes more than 180,000 parent companies, affiliates, subsidiaries, and divisions in the U.S. and worldwide. Profiled data in the 1996 through 2002 volumes of The Directory of Corporate Affiliations were analyzed. For the measurement of financial performance, the data were derived from the firms’ annual reports and 10-K filings. All financial figures were verified by comparing those reports with Standard & Poor’s Compustat financial data.

Measurement

Extent

Previous literature from the industrial organization studies used objective measures based on SIC count to capture the total degree of diversification (Arnould, 1969; Carter, 1977; Gort, 1962). This study also used the number of different four-digit Standard Industrial Classification (SIC) codes in which firms operate. Its use was dictated by the following considerations: (1) It is a well-accepted classification system and is frequently used in previous research; and (2) the analysis presented in this study can be replicated by others. All media products/services are categorized as one of the four-digit SIC codes by industry. For example, if a company runs businesses in newspaper (2711), magazine (2711) and television broadcasting station (4833), the extent (total degree) of the firm’s diversification is three.

Direction

The notion of ‘relatedness’ depends on how managers define their businesses (Salter & Weinhold, 1979). However, it is impractical to judge the relatedness of transactions based on each manager’s decision for each transaction. Thus, strategic management scholars has introduced several methods to measure the direction (related degree) of diversification based on objective data, including Rumelt’s category (1972), Herfindahl type index (Montgomery, 1982), Entropy (Jacquemin & Berry, 1979; Palepu, 1985), and BSD & MNSD (Varadarajan & Ramanujam, 1987).

Entropy measure is a frequently used method to measure the relatedness of product diversification based on a firm’s sales volume by product segment. However, it is difficult to find secondary sources that provide reliable and consistent data by product segment for media firms. Worse yet, each media firm provides product segment revenue in a different way. For example, one company combines broadcasting, cable, movie, games, and other segments as entertainment revenue, while another company reports its revenue from broadcasting and cable separately. As a consequence, it is problematic to apply the same rule of segment to all companies.

Adopting Jacquemin and Berry’s (1979) entropy measurement, researchers used the number of SIC industries instead of sales segment data (Geringer, Tallman, & Olsen, 2000; Palich, Carini, & Seaman, 2000; Robins & Wiersema, 1995; Sambharya, 1995). They used a Herfindahl type measure of product diversification, which takes into account
both the number of segments in which the firm operates and the relative importance of each segment. Following their approach, this study adopted the categories of the Standard Industrial Classification. Based on the classification, two businesses are considered related if they share the same two-digit SIC code, and vice versa. In other words, products belonging to different four-digit SIC industries within the same two-digit industry group are treated as related. For example, the first two-digit, SIC code 27, indicates print media such as newspaper (2711), magazine (2721) and book (2731). On the other hand, the first two-digit, SIC code 48, includes electronic media such as radio station (4832), television broadcasting (4833) and cable television (4841). Therefore, the integration of two SIC code 27 businesses (e.g., newspaper and magazines) were treated as a related business, while the integration of SIC code 48 businesses (e.g., television station or cable television) and SIC code 27 businesses (e.g., newspaper or magazine) was treated as an unrelated business. A detailed list of SIC codes is summarized in the Appendix 2.

Using this category, the Herfindahl measure is computed based on the sum of the squared proportion of industry involvements relative to total operations. Subtracting that sum from one provides an index that rises as industry spread (i.e., product unrelatedness) increases. Following is the equation for the measurement of unrelated degree of product diversification:

\[
D = 1 - \frac{\sum P_i^2}{(\sum P_i)^2}
\]

where \(P_i\) = proportion of operations in the industry \(i\) to total operations.

The following is an example of calculation: Two companies, A and B, involve businesses of four SIC codes equally. Company A is involved in four businesses in the same two-digit SIC (2711, 2721, 4831, and 4832) which are print (27) and broadcasting (48) businesses. On the other hand, company B has different two-digit SIC businesses (2721, 4833, 7375, and 7812) in four areas, which are print (27), broadcasting (48), information service (73), and motion picture (78). Based on the Herfindahl calculation, company A has value of .50 and company B has the value of .75. Therefore, the higher value indicates that the firm is diversified into more unrelated direction.

Financial health

First, financial efficiency is most often measured in diversification studies by profit to sales or profit to asset ratios (Tallman & Li, 1996). Managers and external analysts also frequently use data such as ROS and ROA as a measure of management effectiveness. Thus, traditional accounting measures such as return on sales (ROS), return on assets (ROA) and return on equity (ROE) were used in this study to measure firms’ financial efficiency. Changes in stock prices tend to follow the announcement of figures such as ROS and ROA, indicating that the reports have important signaling effects (Fama & Miller, 1984). In order to check stock market’s evaluation, earnings per share (EPS) were also measured.

Second, considering the multiple aspects of performance, this study employed another set of variables to measure firms’ relative power and magnitude in financial performance. Total revenues were adopted to show the conglomerates’ relative positions in the market, while sales growth rate was evaluated to see the growth potential over short-term profitability (Chan-Olmsted & Chang, 2003). Earnings before interests, taxes, depreciations, and amortizations (EBITDA) were used to evaluate cash flow. EBITDA is not a typical performance measure in accordance with generally accepted accounting principles (GAAP). However, because media business is principally goodwill related, EBITDA will be another appropriate measure for evaluating the media sectors.
Product diversification was defined in two different dimensions. First, the extent of diversification was defined as the total degree of diversification, which was measured by the total number of Standard Industrial Classification codes in which a firm is involved. Second, the direction of diversification was defined as the related degree of diversification, as calculated by the Herfindahl formula.

Figure 1 shows the descriptive results of the extent of product diversification from 1996 to 2002. Most firms analyzed in this study are involved in at least ten businesses, and the mean of the total number of SIC codes of the sample firms has changed from 18 in 1996 to near 28 in 2002. There was not much variation until 1999. However, it showed a significant increase in 2001 and 2002, because of the following mega-mergers: AOL-Time Warner (2000), Vivendi-Seagram (2002), Clear Channel-AMFM (1999), Tribune-Times Mirror (20002), Viacom-CBS (1999), and Gannett-Central Newspapers (2000). At the same time, Disney, Bertelsmann, and Cox Enterprise also diversified their businesses in recent years in response to their competitors’ diversification strategies. The percentage change year by year revealed the most significant increase from 2000 to 2001, which showed a 37.1% increase. On the other hand, there was a 6.3% decrease in the mean from 1996 to 1997. This might be due to changes in the structure of Walt Disney. Subsequent to the acquisition of Capital Cities/ABC by the Walt Disney in 1996, Disney completed the divestiture of its publishing assets, including 39 business periodicals and more than 10 daily newspapers. This led to the decrease of the number of SIC codes involved in the firms in 1997.

Figure 2 shows the mean of the direction of product diversification of the sample firms from 1996 to 2002. The measurement of direction for product diversification was based on the relatedness of the diversified businesses. The scale ranges from zero to one. In this scale, the larger number means the firm is more diversified in unrelated businesses. The mean of unrelated diversification increased from 0.581 in 1996 to over 0.60 in 2002. Like the extent (total degree) of diversification, the unrelated degree of product diversification also showed increase, indicating that media firms have expanded into more diverse business sectors over the years. Meredith, for example, which initially started as a magazine publishing company, now runs an equivalent number of broadcasting businesses. Moreover, it has expanded its business into integrated marketing service and interactive media. The Washington Post Company had businesses mainly in print and broadcasting in 1996 but has increased its ownership in the areas of cable television systems, educational services and interactive media. Similar to the extent of diversification, the decrease in 1997 seems to be interpreted as a result of the Disney divestitures.

A regression analysis was conducted to estimate the effects of product diversification on media firms’ financial health. The first two hypotheses (H1a and H1b) proposed that a firm’s financial health has a positive linear relationship with the extent (total degree) of diversification. Because this study employed two sets (financial performance and financial efficiency) of dependent variable, each set was tested separately.

First, the regression with the financial performance measures was conducted. With the total revenue measurement, Hypothesis 1a was supported by showing a significant positive result in the regression model ($\beta = .883$, $R^2 = .779$, $p < .001$). According to the revenue measure, the more product diversification yielded better performance. H1a was also supported by the EBITDA variable. Coefficient of product diversification showed significance with a positive
sign ($\beta = .86$, $R^2 = .74$, $p < .001$). Thus, firms pursuing diversification in diverse product markets have succeeded in achieving better financial performance in terms of operating cash flow. However, sales growth rates did not yield a significant relationship.

On the other hand, even though the results were not statistically significant, the variables (ROS, ROA, ROE, and EPS) in the set of financial efficiency measures revealed a negative relationship with the extent of product diversification. Thus, $H_{1b}$ was not supported.

While main industrial organization literatures, which measure the extent (total degree) of diversification, failed to show a linear relationship between total diversification and performance, this study supported a linear relationship between variables. It should be noted, however, that more diversification only contributed to the magnitude (revenues and EBITDA) of the firms and did not lead to the increase of management effectiveness and profitability (ROS, ROA, and ROE) or market investor’s evaluation (EPS).

The predictions of Hypotheses 2a and 2b were modeled by resource-based strategic management, which posits that related diversifiers have more profit than unrelated diversifiers. Therefore, it assumed an inverted-U shape relationship between the direction of diversification and financial health by proposing the following quadratic model:

$$\text{Performance} = \beta_0 + \beta_1 \text{(direction of diversification)} + \beta_2 \text{(direction of diversification)}^2$$

The expected direction of the coefficient for diversification variable was positive and the square value of diversification variable was negative. Two sets of financial health measures were tested to assess the relationship with the direction (related degree) of product diversification. Table 1 presents the results of regression analysis on the effect of direction of diversification on firms’ financial performance. First, total revenues revealed a curvilinear model with a high degree of explained power in $R^2$-square. However, it was not expected that the directions of the coefficient would be found to be contradictory to the predictions. The coefficient of related degree enters with a negative sign, and that of the square of related degree enters with a positive sign. In other words, it was a U-shaped curvilinear model, not an inverted-U curvilinear model. When EBITDA was used as a dependent variable, the results showed the same U-shape relationship with the direction of product diversification. Sales growth rates showed less degree of explained power than revenues and EBITDA. But the relationship to product diversification was also revealed as a U-shape model. Thus, Hypothesis 2a was not supported. Concentrated media business and the more unrelated diversifiers are, therefore, better than medium level diversifiers with medium degree of relatedness. This result, however, is contradictory to the postulations of the relationship between diversification and performance literature discussed in the previous section.

On the other hand, the remaining four dependent variables (ROS, ROA, ROE, and EPS), which indicate the financial efficiency showed the expected inverted-U shape relationship with the direction of product diversification. Table 2 presents the results of the regression analysis. The coefficient of related degree enters with a positive sign, and that of the square of related degree enters with a negative sign. By revealing an inverted-U shape, it supported the notion that related diversifiers are better than unrelated diversifiers, which cause high transaction cost and coordination complexity. This result suggests that financial efficiency such as profitability or stock market evaluation increased with the increase in di-

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<th>Table 2: Results of regressing financial efficiency on the direction of product diversification</th>
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<td><strong>ROS</strong></td>
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<td><strong>B</strong></td>
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<tr>
<td>Constant</td>
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<tr>
<td>(0.014)</td>
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<td>RD</td>
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<td>(0.396)</td>
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<td>RD$^2$</td>
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<td>(.377)</td>
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<td>$R^2$</td>
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Standard errors are in parentheses.

RD = direction (related degree) of product diversification

RD$^2$ = square of direction (related degree) of product diversification

*$p < .10$  
**$p < .05$
versification up to a certain point, after which it began to decline. It should be noted, however, that only ROA showed a statistically significant result (p<.05) and the other three variables (ROA, ROE, and EPS) failed to yield significant result in each regression model. Thus, H2a was partially supported in the regression test.

Discussion and Conclusions

This study suggests that the relationship between product diversification and performance is more complex than the linear relationship implied in most studies of diversification. Directionless rampant diversification did not contribute to firms’ healthy finance. It only showed a positive relationship with overall amount of revenues and EBITDA. Moreover, the extent of diversification showed a negative relationship with management effectiveness measures such as ROS, ROA, and ROE. The relationship was also revealed as negative in the measurement of earnings per share.

Regarding the direction (related degree) of diversification, this study revealed two contradictory results; the inverted-U shape and the U-shape model. Because this study adopted two sets of variables to measure financial health, the discrepancy might be due to the selection of dependent variable. The first set of measures indicating financial efficiency such as management effectiveness/profitability (ROS, ROA, and ROE) and stock market reaction (earnings per share) showed the tendency of the expected inverted-U shape (See Figure 3). The empirical results indicated that product diversification into related business operations contributes to better financial efficiency. However, excessive diversification, which leads to a high degree of unrelated diversification, might decrease financial efficiency. Therefore, the proven inverted-U shape model in previous management studies might be applicable to media firms. The results recognize that increasing diversification may not be associated with concomitant increases in financial health, at least not through the entire relevant continuum.

Another set of measures (revenues, EBITDA, and sales growth rates), indicating relative power and the overall financial magnitude in the market, also showed a curvilinear relationship between the direction of diversification and financial health. However, it was a U-shaped curvilinear model (See Figure 4), not the expected inverted-U curvilinear model. In other words, this finding for media firms does not support previous studies completed by strategic management scholars. Rather, the hypotheses relating direction (related degree) of diversification yielded a contradictory result. That is, performance decreases as firms shift from concentrated business strategies to related diversification, but performance increases as firms change from related diversification to unrelated diversification. The theoretical framework of diversification in strategic management cannot account for this contradiction. Therefore, explanation for this discrepancy is speculative at best.

One possible reason is that although the diversification strategy pursued by media firms has been successful in terms of overall financial size, it does not seem to contribute to managerial effectiveness and profitability for the firms. In line with theoretic interpretation, the firms might enjoy the market power advantage through greater flexibility in capital formation. Thus, they maintained a relatively strong position in the market by maintaining higher cash levels. That is, media firms are able to generate more cash when they sell more “different” products to customers. However, they might not be successful in creating synergy effects from diversification. Where is the evi-
dence that the company got more efficiency and profitability in aggregating Time Warner content with AOL distribution? Contrary to the rosy expectation of the new company, it presently faces a record-high financial failure. The mantra of synergy does not work in the media industry at this point, not only in AOL Time Warner but also in other media companies as well. Obviously, financial efficiency decreased as the firms expanded their businesses into unrelated media sectors.

A slightly different explanation for the contradictory result is the contribution of the enormous revenue size of GE and Sony. It might be worked as a bias in the model and lead to the opposite direction in the proposed hypotheses 2a. It is possible to run statistical procedures after eliminating two companies in the sample. However, because other companies also have non-media related business, it is fair to include GE and Sony’s non-media business sectors and performance as well.

The contradiction can also be accounted for the perspective of multi-dimensional aspects of financial health measurement. The three variables (revenue, EBITDA, and sales growth rates) measuring relative power and financial magnitude were statistically significant with the opposite direction of the hypotheses. It should be noted, however, that the performance measurement for financial efficiency such as management efficiency (ROS, ROA, and ROE) and investors’ reaction (EPS) showed the expected direction of the hypotheses. If the latter set of variables were a more critical measure for a firm’s financial health, the proven inverted-U model might be applicable to media firms.

In conclusion, this study provides partial corroborating evidence that performance is related to product diversification in a nonlinear manner, supporting the contention that concentrated and more diversified business firms are better in generating more cash than related business firms. The highly diversified firms, such as top ranked AOL Time Warner, Vivendi, Disney, Viacom, or News Corp., achieved better performance, as measured by cash flow using EBITDA and total sales. However, related diversifiers, such as Gannett, Tribune, Times Mirror, McGraw-Hill, Belo, and New York Times, yielded better performance in profitability (ROS, ROA and ROE). At the same time, the results also showed that unrelated diversification led to a decrease of stock market evaluation. Market investors believe overly diversified media conglomerates with non-synergistic asset holdings may have to restructure, divest, and focus on core business (Ferrari et al., 2002).

Because of its exploratory attempt to determine the relationship between product diversification and financial health, this study has a number of limitations and recommendations for future research. One of the limitations of this study comes from the measurement of relatedness. This study used a set of categories, the U.S. government’s SIC code, which is the most frequently used in assessing firm relatedness. According to the classification, newspaper (2711), magazine (2721) and book (2731) businesses are counted as related business. On the other hand, businesses that do not share the same two-digit SIC code (e.g., SIC code 27, print and SIC code 48, broadcasting) were treated as unrelated. The combinations of related cross-media ownership that yield the most significant economic efficiencies are those that facilitate sharing of common specialized content or a common distribution infrastructure and expertise (George, Joll, & Lynk, 1992; Martin, 1993). A firm publishing a newspaper might expand its business into magazine publishing, because it can utilize its resources and know-how learned in print media business.

However, unrelated diversification (e.g., television stations and newspapers) does not always give rise to many general economic gains. Because production and distribution techniques are different for broadcasting and newspapers, relatively few opportunities to make better use of collective resources will arise directly from related diversification of these particular sectors of the media (Doyle, 2002). If economies of scope are non-existent and financial profits are generally difficult to achieve, few economic benefits can be directly attributable to cross-ownership of television and newspapers. It should be noted, however, that both print and broadcasting businesses are operated in the ‘media’ industry. Thus, more elaborate consideration regarding the ‘relatedness’ of businesses in the media industry is desirable, instead of relying on traditional SIC-based measures.

Second, because the primary goal of the this study was to reveal the relationship between the diversification of media firms and performance, it did not take into account how alternative factors such as managerial decisions affect performance, to a great extent that diversification strategies per se. Future studies might consider the causal flow of process from the managerial decision about the strategies through performance.

Lastly, other variables, such as international diversification and its combined effect with product diversification, also should be considered in future studies. Because media firms diversify their businesses not only into different product markets but also into international markets, the result of dual diversification might be different.

Despite these limitations, this study has taken a useful step in the analysis of diversification effects on performance. The financial efficiency reflected in management effectiveness such as return ratios, did not provide apparent evidence of cross-media synergy effect. Transaction cost theory suggests that excess product diversification may harm performance (Jones & Hill, 1988; Williamson, 1975). In
other words, more diversification does not always seem to be better. Hence, it is desirable to determine a realistic business diversification strategy rather than relying on the traditional concept of vertical integration or poorly conceived synergy advantage.

From the perspective of the public, whether the high-profit generating media conglomerates would invest money to provide quality information and entertainment products is questionable. Even worse, if these same conglomerates are struggling financially because of their rampant diversification activities, which might lead to excessive debt levels, ultimately it is the public who will suffer. Big is not necessarily bad, but uncontrolably ambitious growth, which may cause financial difficulty, might create a problem that hurts members of the public, who need fair and high-quality media products and services.

Acknowledgements

The author would like to thank Dr. Sylvia Chan-Olmsted at the University of Florida and three anonymous reviewers for their valuable comments.
Endnotes

1 Standard Industrial Classification (SIC) system was developed to facilitate collection of data for economic analysis by the Department of Labor. It employs a set of reporting standards that have evolved over time based on a variety of considerations ranging from similarities in materials to product-market linkage. Each industry is assigned as different SIC code. For example, the SIC code of newspaper publishing is 2711, while broadcasting stations have a SIC code of 4833.

2 A regression test was conducted after eliminating two firms. The result obtained similar and only slightly weaker explanation power.

References


