The current issue and full text archive of this journal is available at
www.emeraldinsight.com/0307-4358.htm

Economic impact of marketing alliances on shareholders' wealth

Foo-Nin Ho and Allan D. Shocker
Department of Marketing, College of Business, San Francisco State University, San Francisco, California, USA, and
Yewmun Yip
Department of Finance, Beacom School of Business, University of South Dakota, Vermillion, South Dakota, USA

Abstract

Purpose – The purpose of this paper is to examine whether marketing alliances create value for shareholders, and whether the results are robust across different business cycles.
Design/methodology/approach – Using standard event study methodology, abnormal returns (AR) were computed for 402 firms which formed marketing alliances in a 12-month period covering three business time periods, namely bull, bear and post 9/11 periods. ANOVA and regression analyses were performed on cumulative abnormal returns (CAR).
Findings – Significant and positive AR were found on announcement day for firms forming marketing alliances. When the sample is segmented by market capitalization, small cap firms were found to stand to benefit the most, particularly when partnering with a large firm. During the bear market period, marketing alliances tend to benefit small cap firms and firms with low profitability, whereas during the bull market period, marketing alliances benefit firms with low asset utilization.
Research limitations/implications – Results are limited by the accuracy of the models used to measure AR.
Practical implications – The results seem to suggest that smaller partners tend to benefit more from marketing alliance, and the effect changes with business cycle.
Originality/value – The paper analyses how the benefits of forming a marketing alliance are shared between partnering firms and how the different phases of business cycle influence the distribution of benefits.

Keywords Marketing, Strategic alliances, Shareholder value analysis, Business cycles
Paper type Research paper

1. Introduction

By definition, a strategic alliance is a formal cooperative agreement between firms designed to pursue a set of agreed upon goals so as to achieve competitive advantages for both partners. Strategic alliances in general involve either collaborative effort (non-equity) or joint venture (equity). In a joint venture alliance, both partners share equity control in a new organizational entity. In a collaborative alliance, neither partner has any equity stake since no new entity is created, and the goal is to pool and leverage on each other's resources to achieve a common goal. Within non-equity alliances, they can be further classified by two dimensions (Chan *et al.*, 1997):

(1) horizontal vs non-horizontal; and

(2) technical vs non-technical.

Horizontal alliances involve partners in the same three-digit SIC class while non-horizontal alliances are between firms from unrelated industries. Technical alliances involve the transfer or pooling of technological knowledge between the partners (e.g. licensing agreements, and research and development agreements) while non-technical alliances involve marketing and distribution agreements. An example of marketing

Managerial Finance
Vol. 36 No. 6, 2010
pp. 534-546

0307-4358
DOI 10.1108/03074351011043017

alliance is the common practice by airlines to engage in marketing alliances to promote their frequent flyer programs such as the formation of star alliance. In times of tight budgets, an underinvestment in marketing and brands may have a long-term adverse impact on the firm. Swaminathan and Moorman (2009) find that by pooling resources together in a marketing alliance with another firm can increase the value of the partnering firms, particularly for marketing alliances in high-tech software industry.

Zagnoli (1987) find that non-equity alliances account for over 50 per cent of all strategic alliances, and other researchers find that non-equity alliances offer more advantages than equity joint ventures. For example, Jensen and Meckling (1991) argue that non-equity alliances provide an organizational mechanism that aligns decision authority with decision knowledge, and that benefits and costs resulting from the decisions accrue fully to the decision maker, i.e. decisions are delegated to a level closer to the requisite knowledge. Another advantage is the organizational flexibility of such alliances where new links can be formed or current links disbanded in response to market demands. On the other hand, there are costs associated with these "symbiotic" alliances – those that relate to searching out reliable partners, designing contracts and other bonding mechanisms that discourage opportunism, and monitoring the behaviour of alliance partners (Chan *et al.*, 1997; Klein *et al.*, 1978). In such situations, companies have to balance between preserving key proprietary knowledge to maintain their competitive advantage and insuring that partners will see a need to pool their resources. This conjecture is supported by the findings of Luo *et al.* (2007) in that firms must carefully balance between competition and cooperation when working with their rivals in a cooperative alliance. Conversely, Harrigan (1984) notes that most strategic alliances usually involve technology or knowledge that companies know they cannot protect adequately or control.

Over the years, various scholars have studied strategic alliances. For example, researchers have looked at the theoretical and conceptual foundations, motives for, and framework of strategic alliances (Varadarajan and Cunningham, 1995); economic outcome of strategic alliances (Chan *et al.*, 1997); choice between equity and non-equity modes of alliance (Pisano, 1989); the management and structuring of alliances (Parkhe, 1993). Marketing scholars have also looked at strategic alliances such as intra-organizational cooperation between marketing and other functional areas or other business units (Ruekert and Walker, 1987) and inter-organizational relationships between firms (Adler, 1966; Swaminathan and Moorman, 2009; Luo *et al.*, 2007). Some researchers have also identified the importance of marketing alliances in the overall realm of strategic alliances. Varadarajan and Cunningham (1995) view marketing activities as critical factors in the success of strategic alliances especially in a rapidly changing business and market environments. Other researchers have also echoed this sentiment in recognizing the importance of integrating marketing in strategic alliances (Webster, 1992; Day, 1992).

2. Economic value of strategic marketing alliances

Das *et al.* (1998) and Chan *et al.* (1997) have found that while strategic alliances create value for their shareholders especially when there is sharing of technological know-how, but that is not necessary true for marketing alliances. For technological alliances involving firms in the same industry, Chan *et al.* (1997) report a significant positive returns, and whereas for marketing alliances, a significant positive return is observed only when the partners are from unrelated industries. In their study on marketing alliances by high-tech software firms, Swaminathan and Moorman (2009) also find a

significant positive return for both partnering firms. On the other hand, Das *et al.* (1998) do not find a significant return to shareholders for the formation of marketing alliances.

Das *et al.* (1998) find that although investors view alliances formed by more profitable firms as detrimental to their value, marketing alliances are viewed as more detrimental than technological alliances. On the hand, Chan *et al.* (1997) report that firms entering into strategic alliances tend to outperform their industry counterparts in the period prior to the formation of the alliances, and therefore, they argue that the formation of an alliance is not in response to poor performance. Larger firms, especially in technological alliances, depend critically on their smaller partners for resources (e.g. technological know-how). This asymmetric dependence enhances the bargaining power of the smaller partners. This conjecture is supported by the empirical evidence provided by Das *et al.* (1998) in that the market reaction to smaller firms' alliances is greater than the reaction to larger firms' alliances. This effect is more prominent for technological alliances, where smaller partners earn significantly higher returns than their larger partners. However, there are no discernible differences in the returns earned by the small and large partners in marketing alliances. Chan *et al.* (1997) also report similar findings in that smaller partners tend to benefit the most from forming a strategic alliance, but their larger counterparts do not suffer a decline in value.

The existing literature seems to suggest that marketing alliances do not create value unless it is forged between firms in unrelated industries. Why do we continue to observe the formation of so many marketing alliances? The apparent incongruity between marketing practices and existing empirical results lead us to investigate further the issue of whether marketing alliances create value for shareholders. The seemingly conflicting results on which types of firms benefited the most from forming a strategic alliance as reported by Chan *et al.* (1997) and Das *et al.* (1998) are perhaps due to using different sampling periods. Essentially, Das's 1998 study covers the bear market period (i.e. from 1987 to 1991) while Chan's 1998 study covers a longer period (i.e. from 1983 to 1992) which includes both the bear and the bull market. In this study, we hypothesize that the market reacts differently to the different characteristics of firms forming marketing alliances during different phases of the business cycle. During a bear market, the market may view the formation of an alliance by a poor performing firm as a positive move towards profitability and reward the firm for doing that. On the other hand, during a bull market, since most firms are profitable, profitability may not play as critical a role in deciding on the formation of a marketing alliance.

Given the limited empirical studies on marketing alliances and their economic impact, our research objective is, therefore, to re-examine whether non-equity marketing alliances create economic value for the shareholders. In this study, we look at non-equity, non-technical marketing alliances (henceforth referred simply as marketing alliances) and their economic impact on shareholders' value. Specifically, the marketing alliances we examined include cross-licensing, co-branding, co-marketing, and joint marketing. In addition to investigating the economic value of marketing alliances, we also examine whether there is a redistribution of wealth between partners. Third, we also examine the influence of business cycle on the economic value of marketing alliances. Therefore, our research questions about marketing alliances and their economic impact are stated as follows:

RQ1. What is the economic return to shareholders from forming a marketing alliance?

RQ2. Who benefits the most from such alliances?

RQ3. Whether business cycle plays a role in influencing the type of firms entering into a marketing alliance?

The rest of the paper is organized as follows. Section 3 presents data description and methodology. Section 4 discusses the empirical results. Finally, section 5 offers our concluding comments.

3. Research design

3.1 Data collection

An event such as marketing alliance is usually well publicized in the media in the form of business wires. To obtain a sample of firms announcing strategic marketing alliances, we conduct a search of the Lexis/Nexis database including all business wires covering the following time periods:

- bull market period from 1 November 1999 to 28 February 2000 (also known as the internet bubble period);
- bear market period from 1 March 2001 to 10 September 10 2001; and
- post 11 September from 11 September 2001 to 31 October 2001.

Since marketing alliances are commonly announced in the media, within this 12-month period, our search resulted in close to 10,000 initial hits, and therefore, provided us with a large enough sample size for the study.

Data collection for the study is a multi-stage process. In stage one, we search the Lexis/Nexis database using the keywords "strategic alliance". In stage two, we narrow the search by using a combination of four keywords; specifically, co-marketing, co-branding, joint marketing, and marketing alliance as these represent non-equity marketing alliances. From this search, there are 9,847 hits. Every announcement is then reviewed to see if it meets the criteria of a marketing alliance, i.e. a non-equity agreement that is non-technical. We exclude all alliances that involve the transfer or pooling of technological knowledge. Cases, whereby the announcement has both technical and non-technical components, are also excluded from the final sample.

The filtering process identifies 311 qualified announcements of marketing alliances involving 402 firms in which at least one partner's common stock is publicly traded, and data on daily stock returns and market capitalization are available. Stock price data are obtained from Commodity Systems Inc and Exchanges hosted on the Yahoo! Finance web site and the previous year annual financial data for each firm are obtained from the COMPUSTAT database. The Security Exchange Commission requires companies to report their financial statements no later than three months after the fiscal year ending date. To ensure that the firm's financial data are available on the event day, we restrict the fiscal year ending date of the financial statements to be at least three months before the event date.

For comparisons, firms in the final sample (Table I) are further classified by their market capitalization, which is defined as the price of a share of common stock multiplied by the number of shares outstanding. Small cap firms are defined as having a market value of less than \$1 billion; mid cap firms have value of between \$1 and \$5 billion; and, large cap firms with market value greater than \$5 billion.

3.2 Measuring abnormal returns

We use an event-study methodology similar to that described in Brown and Warner (1985) to measure the stock market's reaction to the announcements of marketing

Table I.
Descriptive statistics of firm characteristics

Firm characteristics	Small cap firms				Mid cap firms				Large cap firms				
	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	*F*-stat
n	138				57				207				
Market cap	278.66	274.26	0.89	934.49	2,789.69	1,104.38	1,078.65	4,851.00	85,672.57	101,367.01	5,049.28	460,770.51	67.85**
Beta	1.21	0.80	0.05	3.48	1.23	0.95	0.19	3.40	1.57	0.86	0.01	4.39	8.35**
Earnings-price ratio	0.06	0.05	0.00	0.21	0.07	0.07	0.00	0.31	0.03	0.03	0.00	0.19	24.76**
Book-to-market	0.59	0.76	0.00	6.12	0.48	0.45	0.03	2.54	0.20	0.21	0.01	1.59	26.41**
Current ratio	3.16	3.99	0.02	37.33	1.81	1.51	0.25	7.64	1.94	1.44	0.26	10.48	9.56**
Debt ratio	0.39	0.24	0.03	0.96	0.58	0.24	0.02	0.98	0.53	0.22	0.08	0.93	18.98**
Equity multiplier	2.69	3.50	1.03	25.99	4.15	6.55	1.02	47.09	3.18	2.90	1.09	15.12	2.78*
Return on assets	−0.11	0.25	−0.89	0.33	0.02	0.10	−0.29	0.21	0.08	0.10	−0.66	0.28	51.11**
Return on equity	−0.01	2.73	−5.21	26.37	−0.04	0.85	−5.77	1.11	0.16	0.32	−2.70	1.46	0.59
Profit margin	−3.73	27.18	−307.54	5.63	−0.15	0.89	−6.04	0.25	0.11	0.40	−1.81	2.71	2.55*
Asset turnover	1.51	2.45	0.00	15.27	1.23	1.03	0.04	4.65	0.89	0.63	0.05	3.98	6.63**
Time interest earned	64.54	144.38	1.12	778.58	298.46	1325.08	0.67	6373.00	58.04	271.44	0.95	3362.09	2.95*

Notes: The reported *F*-statistic is for testing if the means of three independent samples are equal; *p-value < 0.10; **p-value < 0.05

alliances. The day when a press release is issued on the formation of a marketing alliance is defined as the event day (i.e. $t = 0$). We then examine the behaviour of stock returns 60 days before the event day, and 60 days after the event day (i.e. $t = -60, +60$). For each of the 402 previously identified stocks, the daily risk-adjusted returns are estimated using both the market model and the market-adjusted returns (see, Brown and Warner, 1985). For market-model risk-adjusted return, the parameters of the single index market model are estimated over a 200-day period ($t = -260, \ldots, -61$) using the S&P 500 index as the market index. The parameter estimates are then used to calculate the abnormal returns (AR_t) for the period from 60 days before to 60 days after the announcement day.

However, the results based on a single-index model can be biased due to model misspecification, as pointed out by Roll (1977). To avoid specification bias, we also compute the market-adjusted returns for each of the 402 stocks, and again the S&P 500 index is used as the market index.

The cumulative abnormal return CAR_j $(-m, +n)$ for event window from Day $-m$ to Day $+n$ is then computed for each stock using the following equation:

$$CAR_j(-m, +n) = \sum_{k=t-m}^{t+n} AR_{j,k}$$

4. Empirical results

4.1 Sample characteristics

Table I presents the characteristics of firms in the sample. As shown by their profitability measures, such as returns on assets and profit margin, small cap firms have lower profit margin as compared to their larger counterparts. In fact, more than half of the small cap firms are unprofitable prior to their entering into a marketing alliance, compared to only 5 per cent for the large cap firms. In addition, the common stocks of small cap firms are not as highly priced by investors as indicated by their high earnings-price and book-to-market ratios.

Perhaps, because of their low profitability, these small cap firms are not as highly leveraged as indicated by their average debt ratio of 39 per cent as compared to 53 per cent for large cap firms. They also have higher liquidity as measured by a high average current ratio of 3.16. Surprisingly, the small cap firms are also more efficient in the use of asset as shown by their higher asset turnover ratio. On the other hand, the lower earnings-price ratios for the large cap firms may indicate that investors expect these firms to have a higher potential growth rate. The stock returns of these large companies are also more risky as shown by their higher betas.

4.2 Stock price response to announcement of marketing alliances

For compatibility reasons, we adopt the same event windows as those used by Das *et al.* (1998). Since the results using market-adjusted AR are very similar to those using market-model-adjusted AR, we report only the market-model-adjusted CAR. Table II presents the average CAR calculated for various event windows. For all firms in the entire sample period, our results show that, on average, the market reacts positively to the announcements of marketing alliances for all event windows. On the event day (Day 0), firms entering into marketing alliances earn, on average, a significant abnormal return of 0.66 per cent. When we partition the firms in the sample into three

Event window	All firms Mean	*t*-statistic	Small cap Mean	*t*-statistic	Mid cap Mean	*t*-statistic	Large cap Mean	*t*-statistic	*F*-statistic
Full sample									
n	402		138		57		207		
Days −3 to 3	2.52%	3.54**	4.17%	2.30**	3.10%	2.40**	1.31%	2.09**	1.70
Days −2 to 2	2.45%	3.77**	4.63%	2.85**	3.41%	3.09**	0.77%	1.33	3.84**
Days −1 to 1	1.82%	3.45**	3.07%	2.45**	1.48%	1.62	1.08%	2.03**	1.50
Days −1 to 0	1.35%	2.97**	2.74%	2.47**	1.22%	1.58	0.46%	1.07	2.59*
Days 0	0.66%	2.03**	1.00%	1.30	0.51%	0.93	0.47%	1.39	0.28
Days 0 to 1	1.12%	2.76**	1.32%	1.43	0.77%	1.04	1.09%	2.39**	0.10
Days −1 to 2	1.90%	3.20**	3.70%	2.50**	1.85%	1.86*	0.74%	1.37	2.56*
Days −1 to 3	2.27%	3.44**	4.07%	2.47**	2.77%	2.37**	0.96%	1.64	2.33*
Days −2 to 1	2.32%	3.86**	3.86%	2.61**	3.03%	3.12**	1.12%	1.94*	2.26
Days −3 to 1	2.04%	3.28**	3.06%	2.01**	1.81%	1.65	1.43%	2.39**	0.72
Bull market									
n	142		45		19		78		
Days −3 to 3	4.10%	3.22**	7.09%	2.24**	3.82%	1.37	2.44%	1.96*	1.35
Days −2 to 2	2.99%	2.77**	5.17%	2.01*	3.56%	1.43	1.59%	1.41	1.13
Days −1 to 1	2.52%	2.94**	4.10%	2.01*	2.07%	1.08	1.72%	1.87*	0.79
Days −1 to 0	1.43%	2.18**	2.02%	1.30	2.19%	1.29	0.90%	1.32	0.39
Days 0	0.89%	1.80*	1.79%	1.42	−0.38%	−0.29	0.67%	1.60	1.03
Days 0 to 1	1.98%	3.06**	3.86%	2.76**	−0.50%	−0.32	1.49%	1.99**	2.54*
Days −1 to 2	2.76%	2.90**	5.39%	2.35**	2.07%	0.98	1.41%	1.45	1.83
Days −1 to 3	3.64%	3.42**	6.53%	2.64**	4.02%	1.56	1.88%	1.67*	1.96
Days −2 to 1	2.75%	2.76**	3.89%	1.62	3.56%	1.69	1.90%	1.78*	0.45
Days −3 to 1	2.98%	2.62**	4.65%	1.61	1.87%	0.84	2.28%	2.06**	0.51
Bear market									
n	219		76		32		111		
Days −3 to 3	1.97%	2.10**	4.72%	1.89*	2.27%	1.50	0.09%	0.14	2.52*
Days −2 to 2	2.70%	2.96**	6.54%	2.71**	2.88%	2.35**	0.11%	0.19	5.28**
Days −1 to 1	1.78%	2.42**	4.22%	2.28**	0.63%	0.57	0.44%	0.73	2.96*
Days −1 to 0	1.54%	2.27**	4.39%	2.55**	0.57%	0.62	−0.13%	−0.25	4.89**
Days 0	0.51%	1.11	1.12%	0.97	1.38%	2.45**	−0.16%	−0.39	1.10
Days 0 to 1	0.75%	1.34	0.94%	0.68	1.43%	1.74*	0.41%	0.84	0.22
Days −1 to 2	1.74%	2.03**	4.36%	1.94*	1.27%	1.04	0.11%	0.17	2.58*
Days −1 to 3	1.64%	1.74*	4.07%	1.64	1.52%	1.12	0.03%	0.04	1.91
Days −2 to 1	2.67%	3.23**	6.19%	2.88**	2.24%	2.05**	0.45%	0.75	5.15**
Days −3 to 1	2.03%	2.61**	4.62%	2.33**	1.38%	1.02	0.51%	0.80	2.96*
Post 9/11									
n	41		17		6		18		
Days −3 to 3	−0.15%	−0.07	−7.18%	−1.94*	5.24%	1.60	3.91%	1.67	4.48**
Days −2 to 2	−0.80%	−0.49	−5.63%	−2.51**	5.76%	2.07*	1.31%	0.51	2.22
Days −1 to 1	−0.40%	−0.26	−4.79%	−2.70**	4.13%	2.22*	2.24%	0.81	3.78**
Days −1 to 0	0.08%	0.06	−2.73%	−1.66	1.62%	1.29	2.23%	0.93	3.08*
Days 0	0.67%	0.60	−1.65%	−1.87*	−1.30%	−2.54*	3.53%	1.55	3.30**
Days 0 to 1	0.20%	0.13	−3.70%	−2.68**	1.21%	0.51	3.54%	1.28	1.74
Days −1 to 2	−0.25%	−0.18	−4.19%	−2.59**	4.29%	2.43*	1.73%	0.69	2.76*
Days −1 to 3	0.85%	0.51	−3.31%	−1.08	5.47%	2.67**	2.78%	1.22	2.92*
Days −2 to 1	−1.02%	−0.56	−6.36%	−2.58**	5.60%	1.94	1.82%	0.62	3.74**
Days −3 to 1	−1.20%	−0.59	−7.84%	−2.62**	3.91%	1.27	3.37%	1.15	4.54**

Table II.
Average cumulative AR over different event windows

Notes: The reported *t*-statistic is for testing if the mean of the sample is zero; the reported *F*-statistic is for testing if the means of three independent samples are equal; *p-value < 0.10; **p-value < 0.05

groups based on their market capitalization, the average AR of firms on the event day in all three groups were statistically indistinguishable from zero. Except for the event day and the day after the announcement, small cap firms enjoy significant AR for all event windows. Over a seven-day period, from Day − 3 to Day 3, small cap firms participating in a marketing alliance, on average, earn an excess return of 4.17 per cent. For mid cap and large cap firms, although the results are not as robust, significant positive AR are also observed for event window Day −3 to Day 3. Furthermore, the results of ANOVA *F*-tests show that small cap firms enjoy significantly higher AR for the windows −2 to 2, −1 to 0, −1 to 2, and −1 to 3.

During both the bull and the bear market periods, the market reacts positively and significantly to the formation of marketing alliances. In the bull market period, large cap as well as small cap firms enjoy positive significant AR, whereas mid cap firms show no significant reaction to the news. However, the AR for large cap firms during the bear market are statistically not significant. Small cap firms, on a whole, show positive AR for both the bull and the bear market periods.

In the post 9/11 period, small cap firms experience significant negative AR for most of the event windows, and on the event day they lost 1.65 per cent of their value. Also, the market does not show any significant reaction to large cap firms engaging in marketing alliances. When we examine all the firms in the post 9/11 period together, the AR for firms engaging in marketing alliances are not statistically significant.

Similar to the findings of Chan *et al.* (1997) and Swaminathan and Moorman (2009), our results show that marketing alliances create value for shareholders. The results hold for both the bear market and the bull market period. Small firms participating in a marketing alliance benefit the most. However, in the post 9/11 period, small firms suffer a significant decline in value.

4.3 Cross-sectional regression analyses

In this section, we examine whether firm characteristics such as profit margin, debt ratio, asset utilization, and firm size can explain some of the market reaction to the announcements of the marketing alliances. Table III reports the results of two regression models. To allow for possible leakage of information and similar to the procedure used by previous researchers (Chen *et al.*, 2002; Huang and Walking, 1987), we use CAR(–1, 0) as the dependent variable. Our results for the full sample show that small cap firms enjoy a statistically significant positive abnormal return of 3 per cent. The coefficient for asset turnover was negative and statistically significant which shows that firms with lower asset utilization can benefit from increasing their sales through joint marketing, and as a result, will be able to use their assets more efficiently. Taken together, the results show that small firms and firms with low asset turnover tend to benefit more from forming a marketing alliance.

However, when we perform the same analysis on different sub-periods, the dummy variable for small cap firms is significant only during the bear market period. During the bull market period, firms with low asset turnover benefit the most from forming a marketing alliance. The results make sense because firms with low asset utilization tend to have excess capacity, and through forming a marketing alliance, their assets can be utilized more efficiently. In addition, profitability is not significant, and this is consistent with the evidence presented by Chan *et al.* (1997), that is, firms do not enter into marketing alliances because of poor profitability. However, the results for the bear market period show that small cap firms and firms with low profitability can gain from entering into a marketing alliance, and the results is consistent with those reported by

Independent variables	Model 1 All	Bull	Bear	Post 9/11	Model 2 All	Bull	Bear	Post 9/11
INTERCEPT	0.002	0.018	−0.008	0.084	0.017	0.027	0.009	0.073
	(0.184)	(0.883)	(−0.521)	(2.293)**	(1.664)*	(1.511)	(0.637)	(2.003)*
DSIZE1	0.030	0.016	0.037	−0.033				
	(2.809)**	(1.054)	(2.233)**	(−1.044)				
DSIZE2	0.009	0.016	0.001	0.032				
	(0.674)	(0.794)	(0.065)	(0.739)				
DEBT RATIO	0.018	0.002	0.022	−0.150	0.006	−0.004	0.005	−0.139
	(1.005)	(0.061)	(0.937)	(−1.695)*	(0.367)	(−0.133)	(0.229)	(0.819)
PROFIT MARGIN	0.000	0.000	−0.015	0.030	0.000	0.000	−0.019	0.044
	(0.716)	(1.116)	(−3.306)**	(0.848)	(0.440)	(1.005)	(−4.375)**	(0.000)
ASSET TURNOVER	−0.008	−0.010	−0.006	−0.003	−0.006	−0.009	−0.003	−0.004
	(−2.709)**	(−1.693)*	(−1.417)	(−0.282)	(−2.128)**	(−1.549)	(−0.751)	(0.453)
n	396	142	215	42	397	147	216	42
Adjusted R^2	0.019	−0.003	0.092	0.074	0.004	0.001	0.078	0.052
F-value	2.530	0.920	5.320	1.620	1.560	1.060	6.980	1.710
p-value	0.029	0.472	0.000	0.181	0.198	0.369	0.000	0.182

Notes: **p*-value < 0.10; ***p*-value < 0.05; the dependent variable is CAR(−1, 0), the two-day announcement-period AR for the firms that announce the formation of a marketing alliance. The announcement period AR is estimated using the standard market model procedure with parameters estimated for the period 260 days to 61 days before the announcement. *DINTERNET* equals one if the announcing firm engages in an internet marketing alliance, and zero otherwise. *DTIME1* equals one if the announcement date is between 1 November 1999 and 29 February 2000, and zero otherwise. *DTIME2* equals one if the announcement date is between 1 March 2001 and 10 September 2001, and zero otherwise. *DSIZE1* equals one if the firm's market capitalization is less than $1 billion, and zero otherwise. *DSIZE2* equals one if the firm's market capitalization is greater than $1 billion and less than $5 billion, and zero otherwise. *DEBT RATIO* is the total debt divided by total assets. *PROFIT MARGIN* is net income divided by sales. *ASSET TURNOVER* is sales divided by total assets. The numbers in the parentheses are the *t*-statistics of the parameter estimates. The number of observations varies across different regression models due to availability of data

Table III.
Regressions of announcement-period AR

Das *et al.* (1998) in that profitability is detrimental to the value of firms forming a marketing alliance. Our results seem to suggest that the different sample periods covering different business cycle may be able to explain the contradicting results reported by Chan *et al.* (1997) and Das *et al.* (1998).

In the post 9/11 period, the only variable that is statistically negatively significant is debt ratio. A possible explanation is that after a catastrophic event, firms that can stand to gain the most from forming a marketing alliance are firms which are not heavily burdened by debt, and hence, are in a better position to fund such marketing alliance.

4.4 Analysis of wealth effects by relative partner size

Finally, we examine if the gain by small cap firms is due to an expropriation of wealth from its larger partners, and therefore, we compared the change in wealth of pairs of partner firms. In our sample, we are able to identify 87 alliances with financial information on the two partners involved in a marketing alliance. We further subdivide the sample based on the disparity in the market capitalization of the alliance partners,

and dummy coded the difference in the size. If firms from the same market capitalization group (e.g. alliance between two small cap firms) entered into a marketing alliance, the size difference code is equal to 0. The size difference code is equal to 1 if the alliance is between large cap and mid cap or between small cap and mid cap firms. If the alliance is between small cap and large cap firms, the size difference code is equal to 2, which represent partners with the greatest size disparity.

In alliances where the differences in market values of the partners is not substantial, the paired *t*-test results reported in Table IV show that on average, the CAR's for the alliance partners are not different from each other, and the alliance partners do not experience a significant change in their stock value. However, if the marketing alliance is formed between a large cap firm and a small cap firm, our results show that smaller partners enjoy a significant increase in value while the larger partners experience a negative but statistically insignificant decline in value. The pair test results show that smaller partners earn greater returns than their substantially larger partners, and the results are statistically significant for all event windows.

When marketing alliances are formed between partners with a large disparity in size, our results are consistent with those reported by Chan *et al.* (1997) in that smaller partner firms in a strategic alliance enjoy a statistically significant increase in value but not at the expense of their larger partners. When marketing alliances are formed between firms of similar sizes or when the disparity in size is small, marketing alliances do not create any value for the participating firms.

5. Conclusions and discussion

Our results show that marketing alliances do create value for shareholders. We also find that small cap firms stand to benefit the most from forming a marketing alliance, particularly with a large partner. However, when a marketing alliance is formed between firms of similar sizes, both partners do not gain any wealth from the marketing alliance. Our findings are in agreement with those reported by Chan *et al.* (1997) who also find that small partners in a strategic alliance enjoy a significant increase in value but not at the expense of their larger partners.

Contradicting empirical evidence are provided by Chan *et al.* (1997) and Das *et al.* (1998) on the effect of prior operating performance of a firm on the value of an alliance. However, when we re-examined their results by segmenting the sample into bull market and bear market periods, we are able to reconcile their findings. The sample period of Das *et al.* (1998) study covers the period after the 1987 market crash to the end of Gulf War, which coincides with the bear market. Our results showed that during the bear-market period, marketing alliances tend to benefit small cap firms and firms with low profitability; and, this is consistent with Das *et al.*'s (1998) findings in that marketing alliances are more detrimental to profitable firms. On the other hand, the sample period of Chan *et al.*'s (1997) sample period starts with the Reagan's years to the end of the Gulf War, which include both the bull and bear market periods. Our results for the bull market show that profitability is not significant in explaining the observed AR which is consistent with Chan *et al.* (1998) results. In bull market period, our results indicate that firms with low asset turnover benefit the most from forming a marketing alliance. In the bull market, firms that are not operating at full capacity are seeking ways to increase its sales. Investors viewed that forming a marketing alliance is a step in the right direction for the company, and hence rewarded the companies for taking the step.

The important implications from our findings are that during a recession, it makes economic sense for small firms with poor financial performance to seek out larger

Event window	Small partner Mean	Small partner *t*-statistic[a]	Large partner Mean	Large partner *t*-statistic[a]	*t*-statistic[b]
Full sample					
n	87		87		
Days −3 to 3	3.22%	1.82*	0.35%	0.33	1.38
Days −2 to 2	2.87%	1.97*	−0.35%	−0.41	1.93*
Days −1 to 1	2.81%	1.96*	0.37%	0.57	1.59
Days −1 to 0	2.34%	1.75*	0.57%	0.95	1.25
Days 0	1.41%	1.47	0.44%	1.15	0.97
Days 0 to 1	1.89%	1.68*	0.24%	0.52	1.37
Days −1 to 2	2.93%	1.96*	−0.21%	−0.25	1.89*
Days −1 to 3	3.65%	1.99**	0.22%	0.22	1.75*
Days −2 to 1	2.76%	1.88*	0.22%	0.32	1.57
Days −3 to 1	2.38%	1.62	0.50%	0.65	1.06
Size difference = 0					
n	43		43		
Days −3 to 3	−0.20%	−0.10	1.13%	0.65	−0.55
Days −2 to 2	−0.76%	−0.50	0.08%	0.06	−0.43
Days −1 to 1	−0.16%	−0.11	0.55%	0.57	−0.41
Days −1 to 0	−0.57%	−0.45	0.92%	1.11	−1.04
Days 0	−0.42%	−0.38	0.62%	1.03	−0.95
Days 0 to 1	−0.01%	−0.01	0.24%	0.34	−0.20
Days −1 to 2	−0.57%	−0.34	0.27%	0.20	−0.42
Days −1 to 3	0.06%	0.03	0.88%	0.52	−0.37
Days −2 to 1	−0.35%	−0.23	0.35%	0.34	−0.41
Days −3 to 1	−0.42%	−0.23	0.79%	0.73	−0.56
Size difference = 1					
n	17		17		
Days −3 to 3	4.40%	1.19	2.36%	0.86	0.42
Days −2 to 2	3.87%	1.05	0.46%	0.21	0.77
Days −1 to 1	3.77%	1.22	0.91%	0.50	0.83
Days −1 to 0	2.61%	1.45	1.15%	0.61	0.76
Days 0	1.35%	0.82	1.11%	1.37	0.13
Days 0 to 1	2.50%	0.84	0.87%	0.93	0.51
Days −1 to 2	3.09%	0.89	−0.14%	−0.06	0.79
Days −1 to 3	4.59%	1.11	1.49%	0.69	0.69
Days −2 to 1	4.55%	1.38	1.51%	0.81	0.80
Days −3 to 1	3.58%	1.34	1.78%	0.72	0.46
Size difference = 2					
n	27		27		
Days −3 to 3	7.91%	1.93*	−2.15%	−2.45**	2.32**
Days −2 to 2	8.02%	2.56**	−1.56%	−1.41	2.99**
Days −1 to 1	6.95%	2.10**	−0.26%	−0.30	2.12**
Days −1 to 0	6.80%	1.96*	−0.36%	−0.46	2.01*
Days 0	4.38%	1.93*	−0.26%	−0.44	1.96*
Days 0 to 1	4.53%	1.93*	−0.16%	−0.21	1.78*
Days −1 to 2	8.40%	2.62**	−1.02%	−0.93	2.96**
Days −1 to 3	8.78%	2.08**	−1.64%	−1.45	2.48**
Days −2 to 1	6.57%	1.94*	−0.79%	−0.85	2.06**
Days −3 to 1	6.08%	1.85*	−0.77%	−0.86	1.84*

Table IV.
Analysis of wealth effects by relative partner size

Notes: [a]The reported *t*-statistic is for testing if the sample mean is equal to zero; [b]the reported *t*-statistic is for testing if the paired sample mean is equal to zero; *p-value < 0.10; **p-value < 0.05

firms to form a marketing alliance. This strategy to partner with larger firms allows smaller firms the access to market and resources that otherwise will be very expensive to build, and as pointed out by Swaminathan and Moorman (2009) in tough economic conditions, it makes economic sense for firms to pool resources together to achieve a set of common goals. Larger firms, on the other hand, can be more selective in their partnerships. They should try to pick firms that provide some value-added services or access to certain markets in which they are not currently operating. During an economic boom, firms with low asset utilization will benefit most from forming a marketing alliance, especially those that will help expand the marketability and channel of their products and services. Even though the results do not show a significant impact of strategic marketing alliances on the value of large firms compared to smaller firms; however, the value may be seen elsewhere especially when other studies have found that other forms of strategic alliances do add value in conjunction with marketing alliances.

References

Adler, L. (1966), "Symbiotic marketing", *Harvard Business Review*, Vol. 44, pp. 59-71.

Brown, S.J. and Warner, J.B. (1985), "Using daily stock returns: the case of event studies", *Journal of Financial Economics*, Vol. 14, pp. 3-31.

Chan, S.H., Kensinger, J.W., Keown, A.J. and Martin, J.D. (1997), "Do strategic alliances create value?", *Journal of Financial Economics*, Vol. 46, pp. 199-221.

Chen, S.S., Ho, K.W., Ik, K.H. and Lee, C.F. (2002), "How does strategic competition affect firm values? A study of new product announcements", *Financial Management*, Vol. 21, pp. 67-85.

Das, S., Sen, P.K. and Sengupta, S. (1998), "Impact of strategic alliances on firm valuation", *Academy of Management Journal*, Vol. 41, pp. 27-41.

Day, G.S. (1992), "Marketing's contribution to the strategy dialogue", *Journal of the Academy of Marketing Science*, Vol. 20, pp. 323-30.

Harrigan, K.R. (1984), "Multinational corporate strategy: editor's introduction", *Columbia Journal of World Business*, Vol. 19, pp. 2-6.

Huang, Y.S. and Walking, R.A. (1987), "Target abnormal returns associated with acquisition announcements", *Journal of Financial Economics*, Vol. 19, pp. 329-49.

Jensen, M. and Meckling, W. (1991), "Specific and general knowledge, and organizational structure", in Werin, L. and Wijkander, H. (Eds), *Main Currents in Contract Economics*, Blackwell Publishers, Oxford.

Klein, B., Crawford, R. and Alchian, A. (1978), "Vertical integration, appropriable rents, and the competitive contracting process", *Journal of Law and Economics*, Vol. 21, pp. 297-326.

Luo, X., Rindfleisch, A. and Tse, D.K. (2007), "Working with rivals: the impact of competitor alliances on financial performance", *Journal of Marketing Research*, Vol. 44, pp. 73-83.

Parkhe, A. (1993), "Strategic alliance structuring: a game theoretic and transaction cost examination of interfirm cooperation", *Academy of Management Journal*, Vol. 36, pp. 794-829.

Pisano, G. (1989), "Using equity participation to support exchange: evidence from the biotechnology industry", *Journal of Law, Economics, and Organization*, Vol. 5, pp. 109-26.

Roll, R. (1977), "A critique of the asset pricing theory's test: Part I: on past and potential testability of the theory", *Journal of Financial Economics*, Vol. 4, pp. 129-76.

Ruekert, R.W. and Walker, O.C. (1987), "Marketing's interaction with other functional units: a conceptual framework and empirical evidence", *Journal of Marketing*, Vol. 51, pp. 1-19.

Swaminathan, V. and Moorman, C. (2009), "Marketing alliances, firm networks, and firm value creation", *Journal of Marketing*, Vol. 73, pp. 52-69.

Varadarajan, P.R. and Cunningham, M.H. (1995), "Strategic alliances: a synthesis of conceptual foundations", *Journal of the Academy of Marketing Science*, Vol. 23, pp. 282-96.

Webster, F.E., Jr. (1992), "The changing role of marketing in the corporation", *Journal of Marketing*, Vol. 56, pp. 1-17.

Zagnoli, P. (1987), "Inter-firm agreements as bilateral transactions", paper presented at the Conference on New Technology and New Intermediaries: Competition, Intervention and Cooperation in Europe, America and Asia, Center for European Studies, Stanford University, June, pp. 4-6.

About the authors

Foo-Nin Ho is a Professor of Marketing at San Francisco State University. Ho received his PhD in Marketing from the University of Mississippi. His research interests include marketing and consumer ethics, advertising, healthcare marketing, ethnic marketing and consumer decision-making. His work has previously appeared in the *Journal of the Academy of Marketing Sciences*, *Journal of Business Ethics*, *Marketing Health Service*, *Journal of Pharmaceutical Marketing and Management*, *Journal of Marketing Theory and Practice*, *Journal of Consumer Marketing*, *Journal of Promotion Management*, *Health Marketing Quarterly*, as well as various national proceedings.

Allan D. Shocker is a Visiting Professor of Marketing at San Francisco State University. Shocker received his PhD from Carnegie Mellon University. His research interests lie in the areas of customer decision-making, product planning, new product design and development, market structure analysis, diffusion modelling, and brand equity. His work has appeared in *Journal of Marketing*, *Journal of Marketing Research*, *Journal of Consumer Research*, *Marketing Science*, *Management Science*, and various other journals.

Yewmun Yip is an Associate Professor of Finance at the University of South Dakota. Yip received his PhD in Finance from the University of Wisconsin, Milwaukee. His research interests include market anomalies, Asian financial markets, foreign exchange markets and government intervention. His work has previously appeared in the *International Review of Economics and Finance*, *Review of Accounting and Finance*, *Managerial Finance*, *Global Business and Economics Review*, and various national and regional proceedings. Yewmun Yip is the corresponding author and can be contacted at: yyip@usd.edu