

# **FINANCIAL MARKET REACTIONS TO INTERNATIONAL MERGERS & ACQUISITIONS IN THE BREWING INDUSTRY: AN EVENT STUDY ANALYSIS**

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# **FINANCIAL MARKET REACTIONS TO INTERNATIONAL MERGERS & ACQUISITIONS IN THE BREWING INDUSTRY: AN EVENT STUDY ANALYSIS**

*Matthias Heyder, Oliver Ebneth and Ludwig Theuvsen*<sup>\*</sup>

**Abstract** Cross-border acquisitions have been the growing trend in recent years in the world brewing industry, giving brewers the opportunity to enhance their degree of internationalization and market share remarkably. This study employs event study analysis to examine 31 mergers and acquisitions among leading European brewing groups. Differences regarding financial market reactions can be determined within the European peer group. Managerial implications as well as future research propositions conclude this paper.

**Keywords** Brewing industry, mergers & acquisitions, event study methodology

## **1 Introduction**

In recent decades, one of the most striking developments has been the ever-increasing internationalization of economic activities. This development has also seized brewers. Despite its long heritage as a local industry, the brewing sector is now becoming a global market governed by cross-border takeovers and growth through acquisitions. Low prospects for volume growth in developed markets have lead large brewers to seek growth either via acquisition of other brewers, by aggressive participation in developing markets or both (KÖHLER/HÜTTEMANN, 1989). Thus mergers and acquisitions (M&As) have been the growing trend in recent years, giving firms the opportunity to enhance their degree of internationalization and market share remarkably through diverse one-off deals (LEWIS, 2001; KAPLAN, 2003). But according to various studies about diverse industries, most cross-border deals have not met expectations (AGRAWAL ET AL, 1992; JENSEN, 1992; MÜLLER-STEWENS, 2000; MÜLLER-STEWENS ET AL, 2002). Recent spectacular acquisitions in the brewing industry have highlighted the apparent efforts of leading brewers to build scale and improve their strategic positioning. Unfortunately for shareholders, this may at least in many cases have been at their expense. Assessing the corporate success and financial performance of latest M&As in the brewing sector, therefore, deserves more scientific attention (BENSON-ARMER ET AL, 1999; TODD, 2004). It is widely agreed that the “success” of an M&A may be defined as the creation of synergy: the value of the combined firms is greater than that of the two firms operating separately. This precondition reflects the simple observation that the price paid for a strategic asset must be lower than its expected value if it is to add economic value to the acquiring organization. If this assumption is met we can expect a higher valuation of the acquiring company.

In this paper we apply event study methodology to measure the response of financial markets to changes in the global brewing industry resulting from M&A activities over the last five

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years. Event study analysis uses data from daily stock price movements to determine whether an event – such as the announcement of an M&A activity – generates a statistically significant change in firm valuations. The method was exposed by FAMA ET AL (1969) but has only rarely been applied in the agribusiness sector (KING ET AL, 2002). In this paper event study methodology is applied to the announcement of 31 M&A events transacted by the five leading European brewing companies between 2000 and 2005.

## 2 Research Methodology

Using event study methodology allows financial market-based evaluations of the cross-border acquisitions transacted by the firms under review. The basic assumption underlying the use of stock market data to estimate the effects of M&As is that share prices reflect expectations about future profit and dividend streams. In addition, any changes in future profit streams that an acquisition is expected to bring about are reflected in changes in prices and returns of the company's shares (PANAYIDES/GONG, 2002). The event study methodology has a number of advantages compared to, for instance, accounting-based measures, survey data or case studies: Data is often publicly available; it relies upon the well-respected efficient market hypothesis; and because “abnormal” returns (AR) are calculated, the data is not subject to industry sensitivity, enabling a broad spectrum of industries to be studied (CORDING ET AL, 2002).

Event studies attempt to measure abnormal changes in the stock prices of publicly traded companies that occur in conjunction with an “event” (BROWN/WARNER, 1980; BROWN/WARNER, 1985; WELLS, 2004). This event can be divestitures, corporate control changes, product recalls, issues of new debt or equity, the appointment of top executives, announcements of earnings, dividend payments, profit expectations or half year results, strategic investment decisions, formation of strategic alliances, or the announcement of cross-border acquisitions. The event study method relies on the assumption that over time individual stock returns can be predicted to some degree. The researcher then observes the actual stock returns over the period of interest and computes the difference between the returns that actually occurred ( $R_{it}$ ) and the returns that were predicted from the normal performance of the market ( $\hat{R}_{it}$ ). If this difference (= AR) is statistically significant different from zero, it is concluded that the event under study did impact stock returns and reflects an investor reaction to the event.

Although a few exceptions exist, most recent research on acquisitions were event studies centered on acquisition announcements. Empirical studies show that acquisitions are value-creating, with the lion's share of the gains going to target-firm shareholders and acquiring-firm shareholders breaking even in many cases, but also suffering small losses in some other cases (Jensen/Ruback, 1983; Jensen, 1988; Harrison et al, 2005). Similar results have been obtained from studies on the food business although the studies also show that the details of deals, for instance multiples of purchase price on book value or management of the merged firms, have a great influence on whether a deal creates value or not (DECLERCK, 1995; DECLERCK, 1997; WARD/LEE, 2002). Furthermore, agribusiness subsector may also play a role, for instance for EBITDA or net profit multiples paid for target firms (DECLERCK, 2003). The above discussion raises the question of whether a merger or acquisition in the brewing industry will in fact have a positive impact on shareholder wealth.

Conclusions from an event study are valid only if the inference of significance relies on the following assumptions:

- (a) Market efficiency: This assumption that stock prices incorporate all relevant information that is available to market traders provides the basis for the use of event study methodology;
- (b) Unanticipated events: Usually, when M&As are announced the market has had no previous knowledge of the event. Abnormal returns then can be assumed to be the result of

the stock market's reacting to new information. Difficulties occur when the event has been anticipated by traders or information leaked to the market in advance of a formal announcement (MCWILLIAMS/SIEGEL, 1999);

(c) Confounding effects: The most critical claim is that researchers have isolated the effect of an event from the effects of other events. Confounding events can include any effect that may impact share price during an event window, such as announcements of dividend payments or profit expectations.

### 3 Sample Data and Study Design

The primary data are the daily stock returns for five European brewing groups (InBev, Heineken, Carlsberg, SABMiller and Scottish&Newcastle) which announced 31 M&As during the sample period from March 2000 through August 2005. In fact, the brewing industry has seen many more M&As during this period; but those 31 M&As are the ones that meet the following criteria:

- (a) The transaction was announced between March 1, 2000, and August 31, 2005;
- (b) the acquiring firm's stock is publicly traded<sup>1</sup>;
- (c) the bidder is a member of the European brewers' peer group;
- (d) the targets are brewers as well;
- (e) the return on the acquiring firm's securities is available for at least from 180 days prior to the announcement date;
- (f) the information related to the M&A, such as transaction price and announcement date was publicly disclosed;
- (g) the transaction volume exceeds a valuation of €100m in order to attract sufficient attention from capital markets (KUSNADI/SOHRABIAN, 1999; CYBO-OTTONE/MURGIA, 2000; PUTLITZ, 2001).

The daily stock returns were obtained from Thomson Financial Datastream. To identify the M&A announcements exactly, an intensive search through leading financial magazines and newspaper was undertaken. As we used a relatively long event window (from  $t = -10$  to  $+10$ , i.e. 10 trading days prior to the event to 10 days after the event), which is justified because of uncertainty about when information was exactly revealed, we also checked this period for confounding events. We eliminated M&As when we saw that any additional information (e.g. announcements of dividend payments or half year results) might have affected the share price on the event dates that we examined (SIMPSON/HOSKEN, 1998).

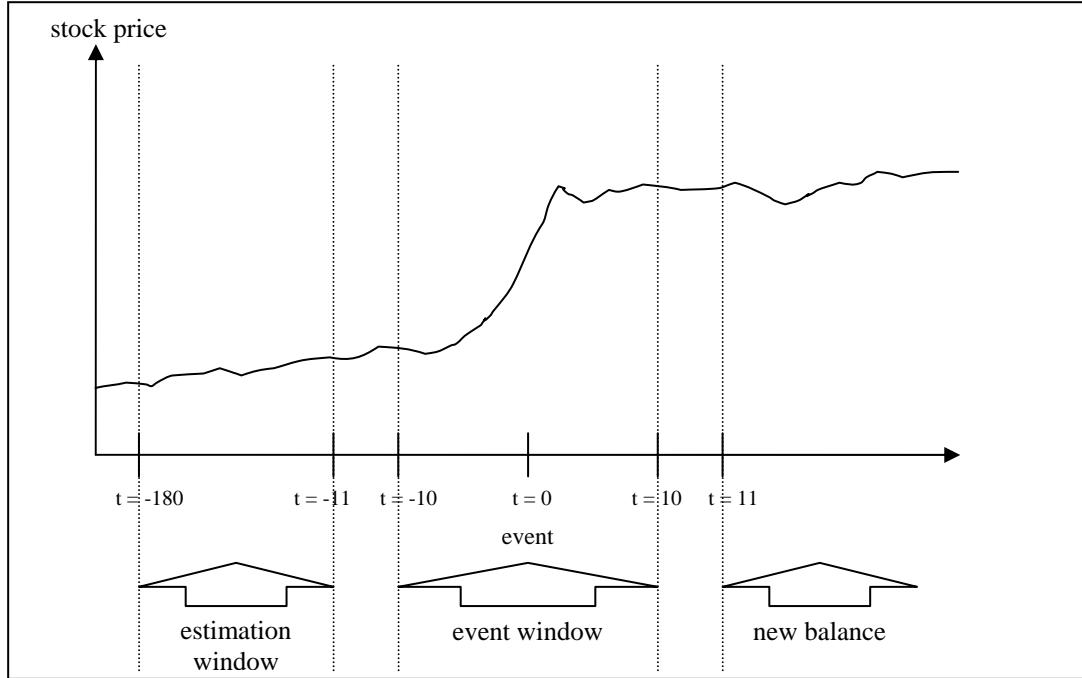
The initial task of conducting an event study is to define the event of interest (here: cross-border acquisitions during the last five years). The estimation window is the 170-day period (-180 to -11) preceding the event date. Afterwards the period has to be identified over which the security prices of the firms involved in this event will be examined – the event window. In this study, we calculated the short-term as well as the intermediate-term effects of the brewing M&A announcements. The short-term effects were calculated by using the usual three-day event window (from  $t = -1$  to  $+1$ ). Especially in cases where the event is an announcement of an acquisition, it is customary to define the event window as larger than the specific period of interest (MCWILLIAMS/SIEGEL, 1997). This permits examination of periods surrounding the

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<sup>1</sup> Carlsberg's B-share is traded at the Copenhagen Stock Exchange (Reuters code: CARLb.CO), Heineken N.V. is listed at the Euronext Amsterdam (HEIN.AS), SABMiller (SAB.L) as well as S&N (SCTN.L) are listed on the London Stock Exchange, and InBev's shares are traded at the Euronext Brussels (INTB.BR).

event. Amendatory to the long event window (from  $t = -10$  to  $+10$ ), medium-term windows surrounding the event day are also taken in account, such as the eleven-day (from  $t = -5$  to  $+5$ ) and the five-day window (from  $t = -3$  to  $+1$ ). Figure 1 illustrates the time line for conducting this event study.

**Figure 1: Cycle of Implementation of the Event Study**



#### 4 Empirical Results

For the 31 M&As under review, abnormal returns were computed and aggregated over the event window (cumulative abnormal returns; CARs). The results of the 21-day window CARs are given below.

Carlsberg acquired three firms over the last five years, i.e. Orkla, Feldschlößchen and Holsten. The Orkla deal transacted in early 2004 was perceived positively by shareholders as it gave Carlsberg A/S sole ownership of Carlsberg Breweries (BEVAN/GREENBERG, 2004); CAR were around +10% at the end of the event window. The 100% takeover of Feldschlößchen in November, 2000, first cumulated 8.5% positive abnormal returns near the announcement day, then recovered to zero, and finally resulted in +3.3% gains. The Holsten deal in January, 2004, saw -4.2% returns some days before the acquisition had taken place, recovering to zero on the announcement day and had finally had a decreasing trend, staying around -7% till event day +10. Such a developing of values may be due to information leaking out early or to subsequently revealed information that may have influenced investors' decisions or expectations (HUANG/WALKLING, 1987; MCWILLIAMS/SIEGEL, 1999). The latter two events were not statistically significant.

Apart from the BBAG deal Heineken has transacted seven mid-scaled acquisitions included in our sample, all resulting in moderately negative returns. Two outliers can be found in the sample. First, the acquisition of BBAG in May 2003 which had a transaction volume of around €1.9 billion, was negatively assessed by the capital market, causing a 13% decrease in Heineken's stock price, which was statistically significant at the 1% level. In contrast the acquisition of Bravo in February 2002 lead to a 10 % increase in the stock price with a statistical significance at the 5% level.

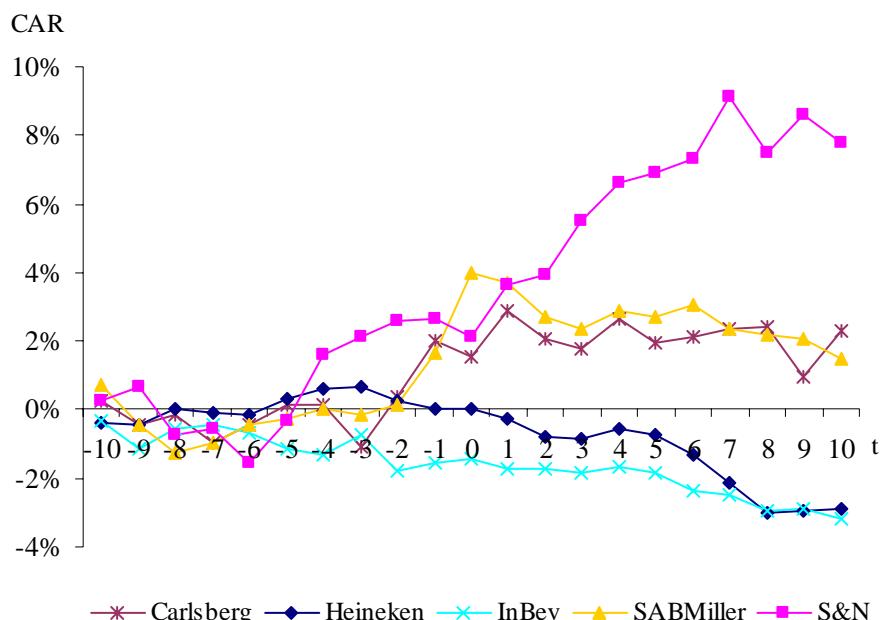
InBev was responsible for 11 M&As in the sample, resulting in an aggregate transaction volume of more than €23 billion. Regarding all transactions, InBev experienced an average loss of 3.17%, statistically significant at the 10% level. The acquisition of Beck's in August 2001 was the spectacular beginning of a roll up by leading brewing groups of the previously closed German beer market. Most analysts evaluated the transaction value of €1.8 billion as overpriced (EBITDA multiple: 13.0). This resulted in a stock price loss of more than 12.5%, statistically significant at the 5% level.

Scottish&Newcastle (S&N) acquired four firms in the sample period. Unlike InBev, S&N experienced an average gain of 7.78% also statistically significant at the 10% level. In particularly the Kronenbourg (+11.3%) and the Bulmers (+12.9%) deals have been perceived quite positively by shareholders as these acquisitions were important steps for S&N towards entering strategic markets in Western Europe.

Apart from SABs merger with US-based brewer Miller in 2002, London-based SABMiller executed one major and three smaller-scale acquisitions. The relatively high-priced Peroni deal (EBITDA multiple: 12.6) produced a negative CAR of -5.7% while the “cheaper” Lion Nathan (10.3) and BevCo (6.5) transactions led to positive CARs of 1.6% and 8.5%, respectively. But none of these acquisitions saw statistically significant CARs in the 21-day window. By far the most spectacular deal has been the takeover of Columbian-based brewer Bavaria for approximately €6.5 billion in July 2005. The transaction price has been 10 times the EBITDA. As this not really has been a bargain buy, the capital market has highly appreciated this deal resulting in a jump of SABMillers share price by 8.4%, statistically significant at the 5% level. This is due to the fact that most investors expected SABMiller to pay much more for the Bavaria target as the market entry into the fast growing Southern American beer market has been of paramount strategic importance for SABMiller.

The average CARs calculated for the five bidders allow us to rank the companies in relation to the financial market’s perception of their M&A strategies (Figure 2).

**Figure 2: Average CARs (-10, +10) for the Five European Brewing Groups**

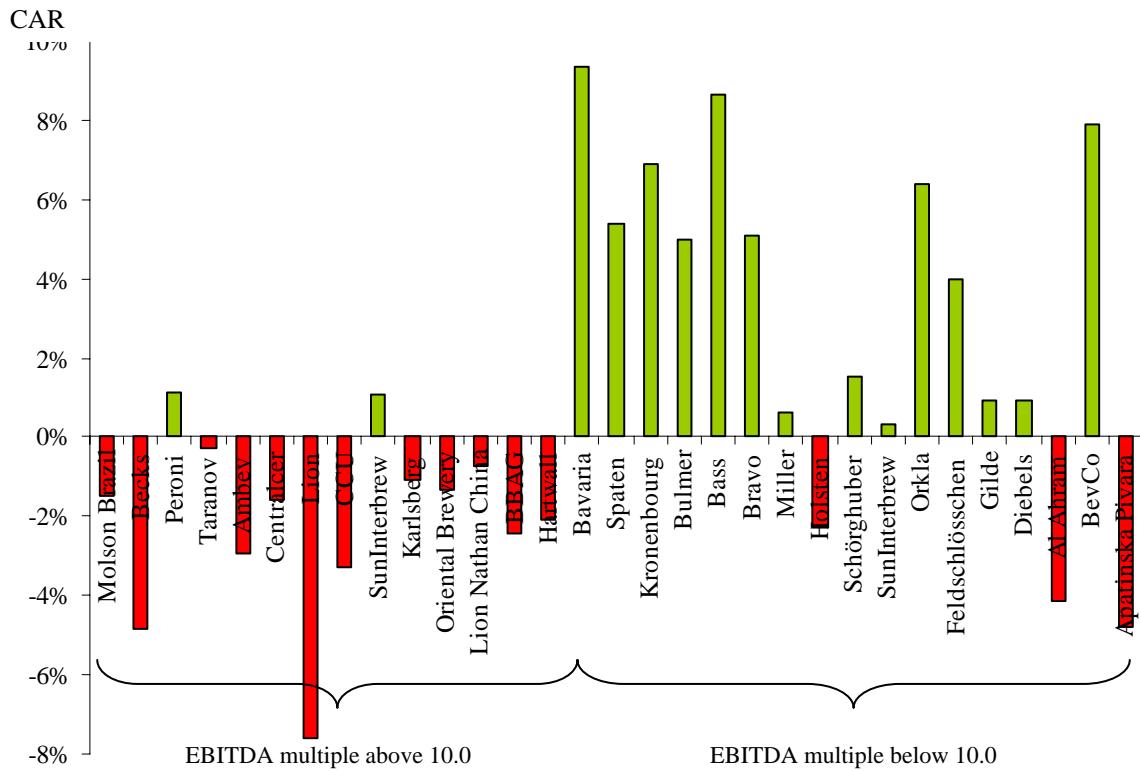


S&N is ranked at the top facing an average CAR<sub>21</sub> of +7.78%. Carlsberg is next with +2.33%. Then SABMiller follows with slightly positive returns at 1.49%. The other two brewing groups receive negative average CARs. Heineken’s stock price oscillates around zero

but has a decreasing trend five days after the event leading to -2.87%. The brewer with the worst performance is Belgium-based InBev, obtaining an average loss in the share price of 3.17%.

An interesting relationship seems to exist between the transaction valuation as a multiple of the target's EBITDA and the stock market valuation of the M&As. The average EBITDA multiple over the whole sample is 10.0. Thus, two subsamples are built: One with an EBITDA multiple above 10.0, the other with an EBITDA multiple below 10.0. Figure 3 illustrates the 31 transactions' CARs (-5, +5) near the announcement day.

**Figure 3: CARs (-5, +5) Ranked by the EBITDA Multiple**



The events are ranked from left to right by their EBITDA multiple in decreasing order. Heineken's acquisition of Molson Brazil has been transacted facing an EBITDA multiple of 13.7. The lowest EBITDA multiple resulted from Interbrew's Apatinska acquisition in 2003 (6.3).

For the first subsample which includes the fourteen M&As with above average prices, cumulative abnormal returns in the eleven-day windows are negative and statistically significant at the 1% level. For the second subsample, comprising seventeen transactions with an EBITDA-multiple less than 10.0, abnormal returns are positive with a statistical significance at the 5% level. Thus, the capital market reacts effectively to the brewers' M&A announcements. It seems that in the world brewing scene, the prices of the publicly traded stocks reflect the reaction of the financial markets to the introduction of the new information efficiently. We can confirm the efficient markets hypothesis as overpriced transactions result in negative abnormal returns whereas the transactions with an EBITDA multiple below the average in our sample have been appreciated by rising stock prices.

## 5 Summary and Discussion of Results

Our empirical study proves that there are significant differences regarding the brewers' level of acquisitioning and M&As' impact on financial performance, expressed in increasing or

decreasing stock prices. Some of the leading European brewers pursue a moderate and continuous expansion strategy while some seek growth via extraordinary and often overpriced acquisitions. The brewers' attitude towards external growth via cross-border acquisitions is reflected in the brewing group's financial performance on capital markets. The results of this study are summarized in Table 1.

**Table 1: Abnormal Returns and Cumulative Abnormal Returns – Total Sample**

Event Day	Acquiror	Target	EBITDA Multiples	Cumulative Abnormal Returns				Abnormal Returns		
				(-10, +10)	(-5, +5)	(-3, +1)	(-1, +1)	t=1	t=0	t=-1
16-Aug-05	<b>Heineken</b>	Taranov	11,8	-0,0205	0,0033	-0,0026	-0,0026	-0,0053	0,0042	-0,0015
19-Jul-05	<b>SABMiller</b>	Bavaria	10,0	0,0843 **	0,1064 **	0,0933 **	0,0819 ***	-0,0134	0,0998	-0,0045
03-Jan-05	<b>InBev</b>	SunInterbrew	8,8	-0,0166	0,0036	0,0032	0,0102	-0,0011	0,0197	-0,0084
16-Sep-04	<b>SABMiller</b>	Lion Nathan China	10,3	0,0158	-0,0223	-0,0071	-0,0027	0,0087	0,0074	-0,0188
12-Aug-04	<b>Interbrew</b>	SunInterbrew	11,0	0,0132	0,0417	0,0109	0,0053	-0,0192	-0,0021	0,0266
03-Mar-04	<b>Interbrew</b>	Ambev	11,5	-0,0573	-0,0274	-0,0294	-0,0207	-0,0247	0,0246	-0,0205
19-Feb-04	<b>Carlsberg</b>	Orkla	8,6	0,1028	0,1057	0,0639	0,0622	0,0530	0,0036	0,0056
20-Jan-04	<b>Carlsberg</b>	Holsten	9,1	-0,0695	-0,0301	-0,0229	-0,0322	-0,0083	-0,0428	0,0190
07-Jan-04	<b>Interbrew</b>	Oriental Brewery	10,7	0,0521	-0,0280	-0,0133	-0,0243	-0,0037	-0,0151	-0,0055
18-Sep-03	<b>Interbrew</b>	Spaten	9,9	-0,0958	0,0368	0,0539	0,0620	0,0299	0,0031	0,0290
11-Sep-03	<b>Interbrew</b>	Apatinska Pivara	6,3	-0,0500	-0,0787	-0,0477	-0,0188	-0,0017	0,0012	-0,0184
08-Sep-03	<b>Interbrew</b>	Lion	11,4	-0,0151	-0,0767	-0,0761	-0,0398	-0,0462	0,0178	-0,0114
13-May-03	<b>SABMiller</b>	Peroni	12,6	-0,0567	0,0206	0,0112	0,0074	-0,0364	0,0300	0,0137
13-May-03	<b>S&amp;N</b>	Centralcer	11,4	0,0755	0,0370	-0,0159	0,0169 *	0,0097	0,0022	0,0049
02-May-03	<b>Heineken</b>	BBAG	10,2	-0,1332 ***	-0,0531	-0,0245	-0,0037	0,0145	-0,0190	0,0008
28-Apr-03	<b>S&amp;N</b>	Bulmer	9,8	0,1293	0,0895	0,0496	0,0332	-0,0246	0,0781	-0,0203
14-Jan-03	<b>Heineken</b>	CCU	11,3	-0,0754	-0,0355	-0,0329	-0,0388 *	-0,0214	-0,0079	-0,0095
15-Nov-02	<b>Interbrew</b>	Gilde	8,6	-0,0439	0,0423	0,0090	0,0215	0,0226	0,0198	-0,0209
12-Sep-02	<b>Heineken</b>	Al Ahram	8,0	-0,0279	-0,0441	-0,0413 **	-0,0243	-0,0090	-0,0152	-0,0001
05-Jun-02	<b>Heineken</b>	Karlsberg	10,8	-0,0510	-0,0305	-0,0110	-0,0018	-0,0045	0,0124	-0,0097
30-May-02	<b>SAB</b>	Miller	9,1	-0,0542	0,0441	0,0060	0,0066	0,0071	-0,0094	0,0089
18-Mar-02	<b>Heineken</b>	Molson Brazil	13,7	-0,0101	0,0387	-0,0150	-0,0101	-0,0080	-0,0008	-0,0013
14-Feb-02	<b>S&amp;N</b>	Hartwall	10,1	-0,0069	-0,0268	-0,0206	-0,0242	0,0414	-0,0739	0,0083
01-Feb-02	<b>Heineken</b>	Bravo	9,7	0,1000 **	0,0527	0,0511 *	0,0294	0,0179	0,0188	-0,0073
29-Nov-01	<b>SAB</b>	BevCo	6,5	0,0852	0,0095	0,0789	0,0834	0,0177	-0,0118	0,0775
06-Aug-01	<b>Interbrew</b>	Becks	13,0	-0,1251 **	-0,0652	-0,0483	-0,0421	0,0020	-0,0444	0,0002
13-Jul-01	<b>Interbrew</b>	Diebels	8,3	-0,0304	0,0158	0,0091	0,0063	0,0038	0,0032	-0,0007
25-May-01	<b>Interbrew</b>	Bass	9,7	0,0205	0,0080	0,0867	0,0509	0,0059	-0,0105	0,0554
11-Feb-01	<b>Heineken</b>	Schörghuber	9,1	-0,0116	0,0240	0,0153	0,0173	0,0003	0,0193	-0,0022
03-Nov-00	<b>Carlsberg</b>	Feldschlösschen	8,6	0,0365	-0,0044	0,0396	0,0443	-0,0048	0,0255	0,0236
20-Mar-00	<b>S&amp;N</b>	Kronenbourg	9,9	0,1133	0,2388 **	0,0692	0,0159	0,0352	-0,0279	0,0086
			10,0							
*, ** and *** indicate significance at the .10 level, .05 level, and .01 level, respectively.				<b>CAAR21</b>	<b>CAAR11</b>	<b>CAAR5</b>	<b>CAAR3</b>	<b>AARt=1</b>	<b>AARt=0</b>	<b>AARt=-1</b>
				-0,0040	0,0128	0,0078	0,0087	0,0012	0,0036	0,0039
				<b>Minimum</b>	<b>-0,1332</b>	<b>-0,0787</b>	<b>-0,0761</b>	<b>-0,0421</b>	<b>-0,0462</b>	<b>-0,0739</b>
				<b>Maximum</b>	<b>0,1293</b>	<b>0,2388</b>	<b>0,0933</b>	<b>0,0834</b>	<b>0,0530</b>	<b>0,0998</b>
				<b>Median</b>	<b>-0,0151</b>	<b>0,0080</b>	<b>0,0032</b>	<b>0,0063</b>	<b>-0,0011</b>	<b>0,0031</b>
				<b>Deviation</b>	<b>0,0700</b>	<b>0,0641</b>	<b>0,0432</b>	<b>0,0345</b>	<b>0,0218</b>	<b>0,0322</b>
				<b>t</b>	<b>-3,047</b>	<b>1,0720</b>	<b>0,9732</b>	<b>1,3517</b>	<b>0,2973</b>	<b>0,5937</b>
				<b>Positive AR</b>	<b>12</b>	<b>18</b>	<b>16</b>	<b>17</b>	<b>15</b>	<b>18</b>
				<b>Negative AR</b>	<b>19</b>	<b>13</b>	<b>15</b>	<b>14</b>	<b>16</b>	<b>13</b>
										<b>17</b>

In competitive acquisition markets such as the brewing industry, gains associated with combination synergies often accrue to target firm shareholders. However, if a specific combination of acquiring and target firm is unique in its synergy potential, the acquiring firm may participate in the gains from the acquisition (BROOKS ET AL, 2000).

Some securities show positive and some negative abnormal returns over all different event windows (-10, +10; -5, +5; -3, +1; -1, +1). But the sample mean abnormal returns for all acquiring firms show no statistical significance. In the same manner, none of the cumulative abnormal returns over the whole sample are significantly different from zero since t-statistic

results were less than the t-table at the required level of significance. But these results are not surprising as they confirm many previous studies (ASQUITH ET AL, 1983; MCWILLIAMS/SIEGEL, 1997; AGRAWAL/JAFFE, 2000; BEITEL, 2002). As we found no negative abnormal returns for acquiring firms in acquisitions, no evidence is provided on managerial self-interest or hubris theory.

Some caveats apply. First, conclusions based on financial data depend ultimately on the views of financial markets and rely on an assumption of market efficiency. However, stock markets can be notoriously indecisive. By defining abnormal returns as the returns beyond what would be predicted from the normal performance of the market (without the event under survey), event studies adjust for movements in the broad market. Furthermore, care was taken to ensure that other confounding events such as announcements of dividend payments or half year results did not interfere with the events in this study. Second, stock price is an aggregate measure of firm value and might capture influences on profitability other than M&A effects. Third, the negative effects for bidder firms over the whole sample were not significantly different from zero (KING ET AL, 2002). This is consistent with most event studies, measuring the effects for the bidder unlike the significant positive effects for target firms. One explanation for the insignificance might be the difference in size between most bidders and targets. Given that the bidders among the brewing groups are on average twenty times larger than the target firms, it might be expected that it would be difficult to detect significant abnormal returns around the announcement of the acquisition for bidder firms (PUTLITZ, 2001).

## **6 Conclusions, Managerial Implications and Future Research**

M&As are often considered a fast and efficient approach for companies to capture the benefits associated with the access to new markets and to gain economies of scale and scope. In the last five years, five European companies have become the world-brewing industry leader by transacting more than €50 billion in M&As. The objective of this study has been to find out how the stock market values these companies' strategies by analyzing the bidders' stock price reactions to brewing M&A announcements. The results of the study are generally consistent with findings in previous studies in the finance literature (SHUSTERMAN ET AL, 2001).

The results of event studies can be of particular importance for shareholders, investors and management. Shareholders and investors have a vested interest in the market's evaluation of important strategic decisions such as M&As because these decisions affect the brewing companies' future competitive positions and worth. Management may obtain useful information from the market that will serve as feedback for past executive decisions as well as provide guidelines for future ones. Knowledge of whether the announcement and implementation of important strategic moves such as M&As create or destroy wealth will underpin future courses of action - not only where the efficiency of such strategies is concerned, but also relating to the method and timing of announcement and implementation (HUANG/WALKLING, 1987; GOERGEN/RENNEBOOG, 2003). Initial managerial implications strive to some of the peer group brewers, who need to redesign their future transaction and implementation processes for cross-border acquisitions.

Our research results show both a relatively neutral shareholder reaction to the M&As on average but clear differences regarding single acquisitions in terms of transaction costs. Some investor reactions were broadly negative, reflecting overpriced deals. But unlike the results of event studies in other industries, despite some negative outliers, there has not been an overall significantly negative response to M&As in the brewing industry. Thus, future developments in the beer industry will undoubtedly display many of the characteristics of recent years –

with intense consolidation activity driven by increasing M&A engagement between the world's leading brewers.

Future research should compare both indicators of firm performance: financial market reactions and accounting-based measures. The latter could complement the short-term and capital-market oriented impacts of M&As as the definition of "success" begins to take on a longer-term perspective: It may take three to five years to fully reap the benefits of the combined firms. It is hypothesized that the ability of top management teams to work together effectively will drive M&A success, measured by return on assets (KRISHNAN ET AL, 1997).

M&A activity in a competitive, contestable market should not be profitable for other firms. Firms that merge to realize competitive advantages (economies of scale and scope, etc.) do so in order to lower their costs or generate other efficiencies. These should create a positive effect on the aggregate profitability of the firms involved in the combination but lower profits for rivals (King et al, 2002). Therefore, future research on evaluating M&As in the brewing sector should include the effects of one firm's merger or acquisition on the stock price of its main competitors. Another useful modification would be to assess different modes of M&A transactions (i.e. friendly versus hostile acquisition, method of payment, domestic versus international M&As, etc.).

More work on MNCs in the brewing sector could also focus on evaluating the efficiency of various strategies and considering the structural consequences of different internationalization strategies. Another idea would be to classify the M&A transactions in the sample according to their specialization or diversification along the geographical lines (LEPETIT ET AL, 2002). For instance, it may be the case that shareholders will react differently to mergers between competitors operating in similar geographical markets than to mergers between companies operating in different regions. Hence, there are strategic factors that may be used to explain the variation in wealth gains.

This approach is useful to explain why the phenomenon of brewing M&As occurs despite the fact that they do not increase firm value on average. Finally, it would be particularly helpful in analyzing M&As in the brewing industry to include the target company's abnormal returns. There is strong empirical evidence in the bulk of event studies to indicate that target firms' shareholders receive significant increases in their stock prices in comparison to the shareholders of bidding firms.

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