

STOCK PRICE FLUCTUATIONS IN PERIODS OF CORPORATE ACQUISITION AND CONTROL: A NEW OUTLOOK FOR THE BOARD OF DIRECTORS

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Abstract

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This paper rummages the stock price fluctuations in periods of corporate acquisition and control. The paper became pertinent to provide information to the corporate board of directors and investors to improve decision making by understanding the inherent fluctuations and the concomitant uncertainties during periods of corporate acquisitions and control negotiations. The main aim of the paper is to examine if there is a significant difference in stock price fluctuation before and during periods of corporate acquisition. The methodological approach is quantitative and used the statistical T-test of difference in mean stock price differences before and during periods of SABMiller acquisition. It also applied the cointegration analysis to establish a correlation in stock price between the acquiring company and the company under acquisition. The analysis was tested at an alpha (α) of 0.05 and results from the statistical analysis disclosed a significant difference to the degree of $P < 0.001$ on two-tailed significance test and showed that stock price fluctuation was higher during the acquisition period than before. Similarly, the cointegration test showed a significant correlation in stock price movement between the purchasing company and the company under acquisition at a $P < 0.001$. The Granger causality test was applied to determine the direction of causality, and the analysis showed that the AB Inbev stock price trend influenced the stock price movement in SABMiller during the period of acquisition with a $P = 0.008$. The paper concludes that at least within the case examination, the news of corporate acquisition may trigger investment uncertainties, which may reverberate on stock price fluctuations. The paper brings insight to the corporate board of directors toward improved negotiation of acquisition or merger prices and compensations given the price fluctuations that acquisition news may trigger on the merging companies' stocks.

Keywords: Corporate Ownership, Corporate Control, Corporate Acquisitions, Corporate Mergers, Stock Price, Investment

1. INTRODUCTION

Managers and investors require constant new information to add proactive insight to growing challenges in making investment decisions amidst complex and competitive global market environment. Managers want to be strategic in seeking new market opportunities that emerging markets offer given the saturation in developed markets. Investors desire the best portfolio combination decisions to maximise the earnings

from their investments amidst implicit risks. Stock price fluctuations are one of the market uncertainties that might frustrate sound investment decisions for investors and for managers. Such fluctuations often emerge with high sensitivity during new strategic plans such as during corporate mergers and/or acquisition and control periods (Singh and Montgomery, 1987; Finkelstein and Halebian, 2002). Accordingly, investors are bewildered when high profile or high reputation firms contemplate acquisition - high profile firms

such as AB InBev and the then SABMiller would not have compromised their high reputation even in the face of alluring acquisition opportunities. Reputation behaviour by high profile companies elicits concomitant stock bidding behaviour from investors whose scepticism resonates on stock-cushioning behaviour given dreaded uncertainty on how high profile firms' acquisition behaviour might influence stock values (Haleblian, Pfarrer, and Kiley, 2017).

This genre of research has become significant to provide investors and managers with information on how the stock of high reputation firms behaved during their acquisition and/or merger negotiations period. This would provide pertinent information for managers and investors to make a future proactive strategic decision when other high reputation firms contemplate acquisitions or mergers. Consequently, this paper rummages the stock price fluctuations pattern during the periods of corporate acquisition and control negotiation between two high reputations companies from developed and emerging market namely the Anheuser-Busch InBev (AB InBev) a Belgium Beer company and the SABMiller, the former South African Beer Company.

This paper makes an important current contribution, as this is seemingly one of the first empirical examination of the stock price movement of the two beer giants since after their current merger in October 2016.

Therefore, the paper has two main aims - to determine whether a significant difference existed in SABMiller stock price movement before and during the period of acquisition by AB InBev. Secondly, the paper aimed to determine if a correlation existed and the direction of the correlation between the AB InBev stock price movement and the stock price movement of SABMiller during the period of acquisition. This paper offers an academic and practical value. On the one hand, the result of this paper provides an important case study for the academia - mostly for post-graduate financial management and corporate governance classes. The paper also provides an agenda for scholars to research further acquisitions between companies in developed and emerging economies.

On the other hand, the findings of this research provide an important lesson for the corporate board of directors to understanding how the news of corporate acquisition might affect the corporate value and thus empower the directors with more bargaining experience.

The paper is structured into four sections; the next section after this introduction presents a brief related literature review. The literature is followed by a description of the methodology employed and the presentation of data analysis and the relevant findings. Following the methodology and findings, the last section discusses the conclusion of the paper.

2. RELATED LITERATURE

Businesspersons are quick to bid for assets where the value of different ramifications is implicit. In the same vein, companies may seek to acquire or merge with other businesses when they perceive that acquiring such other business will fetch additional value into their business. Such value may be financial or market value. Therefore, the acquisition

is a corporate expansion strategy that may span national or international boundaries to strengthen competitiveness. Literature does indicate the stock performance implication arising from major corporate strategic decisions or plans - either within such decision periods or after (Mitchell and Stafford, 2000).

Of current concern in the literature is what happens to the stock of two companies during periods of acquisition negotiations. A myriad of views abounds in the literature. Some believe that there is a mutual benefit in stock performance during the announcement period of possible acquisition with a rising trajectory in stock gains for both the purchaser and the company being acquired (Andrade, Mitchell, and Stafford, 2001). This assertion has been supported by empirical test, which confirms implicit gain for stockholders of both companies under acquisition deal (Lubatkin, 1987).

Other strands of research have tried to link acquisition period performance to cultural clash for companies merging across national borders. In such instances, huge companies with international merger experience seem to benefit from merging across national boundaries, as they are able to use previous international merging experience to draw benefit from mixed or strange cultures that are connected with merging across national borders. Similarly, researchers find that some firms under acquisition may perform well if their directors have been previous exposure or experience about corporate acquisition and/or merger (Dikova and Sahib, 2013; Reynolds and Teerikangas, 2016; Field and Mkrtchyan, 2017)

In some instances, some companies under acquisition might begin to experience abnormal returns on their stock, but such abnormal returns depend on the type of payment employed by the acquiring company, the extent of resistance by management on the acquisition proposal and the type of acquisition - these three factors influence the extent of abnormal return during corporate acquisition announcements (Huang and Walkling, 1987)

Others have viewed stock market reaction during acquisition announcements on the part of rival companies' stocks. Empirical studies seem to provide evidence that rival companies experience stock gain on the announcement of rival company's acquisitions plans (see. e.g. Gaur, Malhotra and Zhu, 2013; Gimeno, Hoskisson, Beal and Wan, 2005; Guillén, 2002).

In a comparison of homogeneous and heterogeneous acquisitions, Palmquist and Bask (2016) found that homogenous acquisitions tend to have more abnormal returns than in heterogeneous acquisitions. Expert opinion news about companies has a significant effect on stock prices whether during or outside of acquisition periods. Strauß, Vliegthart and Verhoeven (2017) found that when experts send market opinion tweets about companies, such tweets send positive impact on Dow Jones Stock Exchange stocks. This finding confirms that expert market news opinions during periods of acquisition would have the tendency of causing fluctuations in prices of merging companies. In a study of returns implicit in cross-border mergers, Zhu and Moeller (2016) find that acquiring companies earn positive abnormal stock returns in

the day after the acquisition announcement and that such returns experience a gradual decline thereafter. This finding has been contradicted by another similar research in Japan. In a study of abnormal return on cross-border acquisition by Japanese companies, Lappalainen (2017) find that Japanese acquiring companies experience negative abnormal returns.

Amidst these previous research, research that has compared pre-acquisition plan stock performance with a period of acquisition stock performance is not very common especially between a company in a developed market and a company in an emerging market such as the current acquisition between the AB InBev of Belgium and former SABMiller of South Africa. In addition, this paper adds to the literature by examining the causality direction between the stock price movement of the bidding company and the company under acquisition. The following section presents the methodology and the findings.

3. METHOD

This paper's examination of stock market reaction in a period of corporate acquisition used the case of stock price movement of SABMiller, formerly South African Beer company before its recent acquisition in October 2016 by Anheuser-Busch InBev (AB InBev) a Belgium Beer company. Both beer companies were regarded as giants in the global beer industry. Whilst AB InBev is regarded as the largest beer company in the world even before acquiring the former SABMiller of South Africa was regarded as the second largest beer company in the world in terms of its revenue after AB InBev of Belgium. Given the value in SABMiller, the global beer giant - AB InBev began an acquisition journey in 2015 to acquire SABMiller and concluded the acquisition in October 2016.

Little research paper has looked at the stock price movement of SABMiller during its period of acquisition and little is known about the correlation between the two companies' stock price movements including which of the company's stock movement influenced or caused each other during the period of the acquisition process. This paper contributes in two ways. Firstly, it provides an analysis of stock price differential of the company being acquired (SABMiller) before and during the period of acquisition - to see whether a significant difference in stock price fluctuation existed because of the acquisition process. Secondly, it prepares a cointegration analysis to see whether a correlation existed between the AB InBev company stock movement and the SABMiller stock movement during the period of acquisition.

The approach is quantitative and archival time series data on SABMiller stock price and AB InBev stock price data for 24 months October 2014 to October 2016. Stock price data was collected from AmigoBulls stock price chart archive, AmigoBulls (2016). The statistical t-test of difference in means was employed to measure the difference in stock price movement before and during the acquisition period. In order to determine whether a correlation existed between the AB InBev and SABMiller during the acquisition period, the paper employed the cointegration statistics to determine the extent of correlation between the two stocks during the acquisition period. In addition, the Granger causality test was used to determine the direction of the relationship between the AB InBev and SABMiller stock price during the acquisition period. These analyses appear in Table 1 - Table 3.

4. RESULTS

Table 1. t-Test: Paired two sample for means in stock price performance of SABMiller before and during the acquisition period

	25 Months During Oct2012 - Oct2014	25 Months B/4 Oct2014 - Oct2016
Mean	56.6212	51.2856
Variance	14.560186	15.09122567
Observations	25	25
Pearson Correlation	0.313282753	
Hypothesized Mean Difference	0	
df	24	
t Stat	5.911881437	
P(T<=t) one-tail	2.11667E-06	
t Critical one-tail	1.71088208	
P(T<=t) two-tail	4.23334E-06	
t Critical two-tail	2.063898562	

The t-test of difference in the mean stock price movement of SABMiller during and before the period of the acquisition was tested under one tail and two

tail tests. Both tails showed a significant difference in mean stock movement between the before and within the period of acquisition at $P < 0.001$.

Table 2. Cointegration between AB Inbev stock performance and SABMiller (during 2 years of acquisition period)

	Coefficient	Std. Error	T-ratio	P-value
const	19.0363	2.98531	6.377	4.07e-010 ***
ABIM Stock	0.310524	0.0246380	12.60	6.99e-032 ***
Mean dependent var	56.61336	S.D. dependent var		3.902556
Sum squared resid	5905.457	S.E. of regression		3.409533
R-squared	0.238206	Adjusted R-squared		0.236707
Log-likelihood	-1348.210	Akaike criterion		2700.420
Schwarz criterion	2708.889	Hannan-Quinn		2703.741
rho	0.972751	Durbin-Watson		0.053760

Note: Cointegrating regression - OLS, using observations 2014/10/31-2016/10/13 (T = 510). Dependent variable: SABMiller Stock

From the cointegration analysis in Table 2, it is clear that a correlation existed between the stock price movement of AB InBev and SABMiller during the acquisition period since $P < 0.0001$. This shows that when two large renowned and reputable companies are merging, there is the possibility that one of the company's stock movement might trigger some movement in the other stock. However, in this case, it is not clear which of the company's stock caused a movement in the other stock. Therefore, the Granger causality tests are applied in Table 3 to determine the direction of causality.

4.1. VAR Granger causality Wald tests

Hypothesis 1:

- *Null Hypothesis 1:* lagged Abim stock price movement does not cause SABMiller stock.
- *Alternative Hypothesis 1:* lagged Abim stock price movement causes SABMiller stock.

Hypothesis 2:

- *Null Hypothesis 1:* lagged SABMiller stock price movement does not cause Abim stock.
- *Alternative Hypothesis 1:* lagged SABMiller stock price movement causes Abim stock.

Table 3. VAR Granger causality Wald tests

Equation	Excluded		df	Prob > chi2
SABMiller	Abim	9.7744	2	0.008
SABMiller	ALL	9.7744	2	0.008
Abim	SABMiller	2.0523	2	0.358
Abim	ALL	2.0523	2	0.358

In the first equation, SABMiller stock is the dependent variable so the hypothesis was to check if the Abim stock price movement influenced the stock movement in SABMiller during the period of acquisition. Acceptance or rejection of null hypothesis was based on whether the associated probability is less than or greater than an alpha (α) of 0.05. Therefore, the interpretation of Granger causality Wald tests in Table 3 is as follows:

Hypothesis 1: the probability for the first equation is 0.008, which is lower than an alpha of 0.05; therefore, the null hypothesis is rejected in favour of the alternative hypothesis. This means that within the period of acquisition, Abim stock price movement influenced the stock price movement in SABMiller.

Hypothesis 2: the probability for the second equation is 0.358, which is higher than an alpha of 0.05; therefore, the null hypothesis is accepted, which means that SABMiller stock price did not influence the stock price performance of Abim (Ab Inbev stock).

5. CONCLUSION

This paper aimed to contribute to existing literature and set out to determine whether a significant difference existed in SABMiller stock price movement before and during the period of acquisition by AB InBev. In addition, it also aimed to determine the degree and direction of correlation between the AB InBev stock price movement and the

stock price movement of SABMiller during the period of acquisition by AB InBev.

The paper applied a quantitative approach and used the statistical T-test of difference in mean stock price differences before and during periods of SABMiller acquisition. It also applied the cointegration analysis to evaluate the correlation in stock price between the acquiring company and the company under acquisition. The analysis was tested at an alpha (α) of 0.05 and results from the statistical analysis disclosed a significant difference with a $P=0.001$ on two-tailed significance test. It showed that stock price fluctuations during the period of acquisition are higher than fluctuation trend before the acquisition.

Similarly, the cointegration test showed a significant correlation in stock price movement between the purchasing company and the company under acquisition. It further disclosed that the AB Inbev stock price movement during the period of acquisition influenced the stock price movement in SABMiller during the period of acquisition.

These results indicate that at least within the briefcase illustration, the news of corporate acquisition may cause investment uncertainties, which may resonate on stock price fluctuations. The main limitation of this paper lies in the short period of observation used in the t-test of difference and focus on a single event of an acquisition. Therefore, the paper recommends further analysis using multiple case studies within and across countries and the expansion of time period of observation to see if the results might differ.

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