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"Mergers & Acquisitions : An insight into Value Creation and Post Merger Synergies"

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Abstract

In recent years there has been a splurge in M&A activities in hope of gaining integration synergies and surviving competition better.This paper is an attempt to study the impact of mergers and acquisitions on the share holder's wealth.This study focusses majorly on 5 major mergers that have taken place during the period 2011- 2012 . An empirical study is conducted to examine pre and post merger stock performance of the aforesaid companies.We have used event study analysis as a major tool to do a competitive study of the mergers. Apart from the stock market reaction to merger news this paper even deals with the synergies that the merging companies have achieved post integration.

Keywords:

Mergers, Acquisitions , Event study analysis, Synergy, Valuation

Introduction

Business still hangs suspended between hope and fear. We all are aware of the fact that business is full of uncertainties and that's a key challenge for any company today. Despite these uncertainties companies are growing now-a-days at a faster pace than ever before and are continuously looking for avenues for major corporate development. Firms these days not only manage the complex issues in current scenario but are also anticipating the future needs and striking a balance between both the aspects. Companies have long been using various strategies and their own ways to deal with the pressure of competition, raising funds, continuous supply to the market, product development and other such issues One of the major strategies to deal with these many pressures is M & A. For companies to stay abreast with competitors , growth through acquisitions has become increasingly important. The number of mergers and acquisitions as well as the value of these transactions has risen significantly through time.

Two plus Two makes five: this equation is the special alchemy of a merger or an acquisition. Synergy is the magic force that combines two companies together and makes them more valuable than two separate companies - at least, that's the reasoning behind M&A.

Mergers and acquisitions (abbreviated **M&A**) a major growth strategy deals with the buying, selling, dividing and combining of different companies and similar entities that can help an enterprise grow rapidly in its sector or location of origin, or a new field or new location, without creating a subsidiary, other child entity or using a joint venture. The distinction between a "merger" and an "acquisition" has become increasingly blurred in various respects (particularly in terms of the ultimate economic outcome), although it has not completely disappeared in all situations.

A merger extinguishes the merged corporation, and the surviving corporation assumes all the rights, privileges, and liabilities of the merged corporation. A merger is not the same as a consolidation, in which two corporations lose their separate identities and unite to form a completely new corporation.

Acquisition

An **acquisition** or **takeover** involves the purchase of one business or company by another. Such purchase may be of 100%, or nearly 100%, of the assets or ownership equity of the acquired entity. Growth strategy can take another form of **Consolidation** where two companies combine together to form a new enterprise altogether, and neither of the previous companies survives independently. Acquisitions are divided into "private" and "public" acquisitions, depending on whether the acquiree or merging company (also termed a *target*) is or is not listed on a public stock market. An additional dimension or categorization consists of whether an acquisition is *friendly* or *hostile*.

This paper focusses on 5 major mergers that have taken place in the year 2011-12 . Table-1 below shows the details of merging firms under study.

Table-1: ***5 major mergers that have taken place in the year 2011-12 chosen for the study.***

Sno.	Bidding Firm	Target Firm
1	Mahindra	Ssangyong Motor Company Limited (SYMC)
2	Reliance Industries	Bharat Petroleum
3	Adani Enterprises	Abbot Point Port
4	Aditya Birla Group	Columbian Chemicals
5	Fortis Healthcare (India) Ltd	Fortis Healthcare International Pvt. Ltd

Mahindra & Ssangyong

Mahindra & Mahindra Limited (M&M) one of the leading Indian automotive manufacturers of international repute which produces SUVs, saloon cars, pickups, commercial vehicles, and two wheeled motorcycles and tractors acquired 70% stake in Ssangyong Motors Corporation (SMC) (A leading maker of sports utility vehicle (SUV) & recreational vehicles (RV)) in February 2011, for $473 million. The Korean company was already suffering losses, financial setback and was fighting for its survival. In January 2009, after recording a $75.42 million loss, the company was put into receivership. On the tough side the company had also witnessed a huge decline in its sales & labor unrest.

Reliance & BP

In February 2011 British corporation oil and Gas Company headquartered in London, England, United Kingdom acquired 30% stake in 23 oil and gas blocks operated by Reliance Industries Limited (RIL). BP invested $ 7.2 billion in all the RIL's oil and gas blocks including KGD6 and provided Reliance the technical support for oil and gas exploration in India. The deal took place after Reliance a premium energy company recorded continuous decline in the output at the D6 block due to geological complexities which has dropped to about 50 million cubic meters a day from 60 million in June 2010.

Adani and Abbot point

Abbot Point in Australia's Queensland state, which consists of a rail loop, coal handling and accumulation areas, conveyor and two berths capable of handling cape size vessel over 2 lakh tonnes deadweight with annual capacity to load 50 million tonnes was acquired by **Adani Group** (usually called **Adani Enterprises Ltd.** The biggest coal importer for India.) in June 2011 .The deal was signed between Adani group's Subsidiary Mundra port & Special Economic Zone (SPEZ) and North Queensland Bulk Ports Corporation Limited (NQBP). The Adani group paid AUD $ 1,829 million to Queensland government to acquire Abbot Point X50 coal terminal (APCT). After the acquisition the new incorporation was named Adani Abbot Point Terminal Pty Ltd.

Aditya Birla Group & Columbian Chemicals

The Aditya Birla Group an Indian multinational conglomerate headquartered in Mumbai, Maharashtra, India having a global presence by in almost 33 countries acquired Columbian chemicals an Atlanta based carbon black maker company in June 2011 by paying USD 875 million. The group expected huge outcomes from this acquisition in manufacturing, research & development and global customer connect for carbon black additives. Aditya Birla Group ranked third revenue wise in Indian conglomerates list after Tata group by generating USD 40 billion revenue (in 2012). The group operates in sectors such as viscose staple fibre, metals, cement (largest in India), viscose filament yarn, branded apparel, carbon black, chemicals, fertilisers, insulators, financial services, telecom (third largest in India), BPO and IT services.

Columbian Chemicals was amongst the world's largest carbon black business firm operating in two major market segments Rubber Carbon Black (RCB) & Industrial Carbon Black (ICB)and having a huge market coverage in north and South America, western and eastern Europe and Asia (US Brazil, Canada, China, England, Germany, Hungary, Italy, Korea and Spain)..The carbon black additives produced by the company are basically used for making tyres and in rubber manufacturing, in plastic, ink, coating etc.

Fortis & Fortis International

Fortis health care limited one of the India's largest and Delhi based private hospital chain offering super-speciality hospitals in Amritsar, Kolkata, Navi Mumbai, Hyderabad, Mohali, Jaipur, Chennai, Kota, Bengaluru, Gurgaon acquired Singapore based Fortis healthcare International from RHC Financial Services Mauritius Ltd, for $ 665 million (around Rs3,270 crore) in Dec 2011. This acquisition was assumed to be a part of consolidation of domestic and global operations of the healthcare group. Fortis International, was founded in 2010 to pursue overseas business, it also has made seven acquisitions in 10 markets, including Hong Kong-based Quality HealthCare Asia.

Literature Review

A lot of early studies on mergers have majorly focussed on the motivations behind Mergers and acquisitons and the basic synergies associated with it. Companies resorting to M&A activites have been motivated by different objectives A few very obvious motives as presented by Sudarshan (2003) being synergies , increased growth , cost savings and increased effeciency. Kumar and Rajib (2007) identified the characteristics of merging firms in India based on their study of 227 acquirer and 215 target firms during the period 1993-2004. A lot of researchers have even analysed the various benefitting aspects of M&A activities major being economies of scale and scope (Bradley, Desai and Kim , 1983, 1988) ,combination of complementary resource, generation of efficiency improvements, and increased competitiveness (Coase, 1937); gaining fast access to new technologies or new markets, benefiting from economies of scale in research and/or production, tapping into the sources of knowhow located outside the boundaries of the firm, and finally, monopoly type advantages (Jensen and Ruback, 1983; Mandelkar, 1974; Freedman, 1989; and Porter, 1987); and corporate control (Manne, 1965; and Alchian and Demsetz, 1972). The financial aspects of M&A activities has also been of major interest to a number of researchers Duso Tomaso, Gugler Klaus , Burien Yurtoglu used a sample of 167 mergers to study the ability of event study analysis to captuer mergers' ex-post profitability (2010). Kokkoris, Ioannis (2007) analysed the usefulness of event studies for mergers and acquitsitions.Whether mergers create value or not has always been of special interest to researchers. A number of theories have been prpounded in this regard The theories based on synergy and efficiency argue in favour of mergers and consolidation whereas theories based on agency cost, free cash flow conflict, and managerial incentive vote against mergers on the ground that wealth is destroyed. Moeller et al (2005) have concluded that value is actually destroyed when engaging in acquisitions. Roll (1986), based on hubris hypothesis, suggests that in merger and acquisition transactions, wealth migration takes place from the bidder bank shareholders to the target bank shareholders and no wealth is created in the process. Other studies include analysis of the market reaction to a takeover announcement; which focuses on the acquiring firm and/or on the target firm (Lys and Vincent, 1995; Bruner, 1999) ,the announcement and completion of a takeover bid/divestiture (Agrawal and Mandelker, 1990; Lys and Vincent, 1995; Gregory, 1997; Bruner,1999).

Research Methodology

We have organised this paper into 2 parts .In the 1st part we have done an event study analysis to find out whether there is an abnormal return associated with the mergers under study .This basically pertains to the reaction of stock prices to the news of merger announcement .In the second part of the paper we have tried to figure out the synergies that the merging firms have achieved post mergers.For the purpose of our study the we have chosen 5 major mergers that have taken place in the year 2011-12 viz . Mahindra & Mahindra and Ssangyong , The Reliance – BP deal , Adani Enterprises and Abbot Point Coal , Aditya Birla Group and Columbian Chemicals , Fortis Healthcare (India) Ltd, and Fortis Healthcare International Pvt Ltd. The major selection criteria have been the Popularity of Firm and Data Availability. A judicial selection has been made so as to ensure that mergers studied are of companies belonging to different sectors. For all the identified firms we first defined the merger announcement date or the event date .The 1st possible date when the news of the merger was made public has been used as the event date The same has been obtained from news clips and websites. We have chosen an event window of - 40 D to the date of announcement to + 40 Days . The estimation period consists of 250 days prior to the first day in the event window.We have estimated α and β values using regression analysis for this estimation period and then calculated expected return (had the merger not been announced) using CAPM model.For each firm we then calculated the abnormal returns for the event window. The abnormal performance or in this case the abnormal return (AR) is the difference between the actual return and the 'normal' return.

AR = Actual return – Expected Return

We then defined the Cummulative abnormal return (CAR) as the sum of daily abnormal return within the event window.

CAR = $\sum$ AR. The statistical significance of avrage abnormal returns and cummulative abnormal returns has been examined using z test at 5 % level of significance.

Hypothesis Tested:

The following hypotheses have been set and tested. Z-test has been used to test significance of the deviations from normal returns at 5 % level of significance.

H0 : There are no abnormal returns associated with the merger announcement .

H0 : The average CAR is equal to zero

H0 : In the very short-term an announcement of a merger or an acquisition will result in a positive reaction in the stock price..

Empirical Results based on analysis

In our effort to test the set hypothesis we applied event study analysis and came up with the following observations for the five mergers under study as shown in Table -2

Table 2: Calculations and tabulation for the 5 mergers under study

S.No.	Mergers	Dates	Beta	Alpha	Avg. Abnormal Returns	Std.Dev of Abnormal Returns	Calculated value of Z test	CAR
1	Mahindra & Ssangyong	15-Mar-11	-0.05969	-1.66717	1.5657019	1.5302	9.999916	148.0099
2	Reliance & BP	22-Jul-11	0.894165	0.704425	-0.884517	1.08703	-7.676435	-79.6066
3	Adani & Abbot point	4-May-11	-0.08217	0.648081	-0.663510	1.59498	-3.92452	-59.7159
4	Aditya & Columbia Chemicals	21-Jun-11	0.414646	1.773658	-1.787367	2.025289	-8.32572	-160.863
5	Fortis & Fortis International	20-Sep-11	0.480053	-0.8202	0.5282608	1.486775	3.351955	47.83943

The daily returns calculated using beta and alpha values for the estimation period showed deviations from the normal expected returns for the event window for each of the 5 mergers .We then calculated the average and standard deviation of the abnormal returns for each merger. Mahindra & Ssangyong deal resulted in an average abnormal return of 1.5657019 with a standard deviation of 1.53 .Z test was applied to test our hypothesis of no abnormal reaction. The z-test score calculated was 9.99 at a significance level of 5% while the table values of Z-score was $\pm$ 1.96 this resulted in our hypothesis being rejected. Also our CAR value turned out to be 148 which was a significant one. Reliance & BP Deal resulted in average abnormal return of -0.8845, standard deviation of 1.087 ,.Z test value -7.676435 and CAR value -79.6066056 again a significant one which led to rejection of our null hypothesis. Adani & Abbot point Deal resulted in average abnormal return of -0.663510 ,standard deviation of 1.594984164 ,the .Z test value of -3.92452 and CAR value -59.7159 again a significant one which led to rejection of our null hypothesis. Aditya & Columbia Chemicals Deal resulted in average abnormal return of -1.787367 with a standard deviation of 2.02528936 the .Z test value came out to be -8.32572 and CAR value was -160.863 again a significant one which led to rejection of our null hypothesis. Fortis & Fortis International Deal resulted in average abnormal return of 0.5282608 with a standard deviation of 1.486775089 the .Z test value came out to be -3.351955 and CAR value was 47.83943 again a significant one which led to rejection of our null hypothesis.In each of the 5 cases the null hypothesis was rejected and we found significant CAR.

Having analysed the stock price reaction of merger anouncement we then moved on to the analysis of post merger synergies achieved by the merging firms.For this we basically tried to analyse what benefits have these merging firms achieved out of the proposed mergers.

A deeper look into the M & M and Ssangyong's alliance showed that M&M has benefited out of the extensive R&D capabilites of Ssangyong. Ssangyong's core competency in the high end SUV helped M & M to expand its profile only because of which it was able to launch its 1st high-end SUV Rexton. M&M has now got the support of the strong dealership network of Ssangyong spread around in 98 countries. M & M has derived savings from joint sourcing and joint product development.But any kind of an alliance should work both ways it is not that M&M has only been on the receiving side even Ssangyong has encashed on the global repute.The share prices of Ssangyong observed a steep rise.Even the joint budget for product development and brand building rosed by leaps and bounds.

An analysis of the Reliance & BP venture revealed that Reliance has gotten the opportunity to utilize BP's world class oil and gas exploration capabilities to fight with geological complexities in exploration and the results were seen very evidently on production as the output in KG-D6 rose significantly in turn it reduced dependency on imports. Whereas BP expanded business horizons with the Asia's third largest economy with value creating capabilities and exciting growth opportunities.

Similarly for Adani group the benefits that turned out after the acquisition that it became the largest coal importer and supplier for India by supplying 30 million tonnes of coal & also it enjoys the rights of mining in India, Indonesia & Australia. Finally the increased global demand & supply raised the revenue for the group. Abbot Point further expanded its capacity from 50 million tonnes to 80 million tonnes. Now the group expects to raise its profit to 70% by 2016. The Government of Queensland State is expected to raise the fund to recover its cost resulting from floods and Cyclone Yasi by the AUD $ 1,829 million deal with Adani group.

When we looked closer to the acquisition of Columbian chemicals by Aditya birla group then it has been found that its manufacturing capacity got doubled from 1 million tonnes to 2 million tonnes for carbon black & it became the largest carbon black producer worldwide also it provided the group an access to the excellent R & D capacity of Columbian chemicals in Marietta, Georgia, USA. The group expanded and strengthened its global presence by spreading over in 4 continents North America, South America, Western and Eastern Europe, and Asia & 12 countries — India, Thailand, Egypt, China, USA, Brazil, Korea, Spain, Canada, Hungary, Germany and Italy.

What proved to be a profitable deal in the case of Fortis & Fortis International was the strong presence of Fortis health care limited not only in India but also in nine other countries in Asia-pacific region i.e. Hong Kong, Australia, New Zealand, Sri Lanka, Singapore, Vietnam and UAE combined with very strong talented staff, medical services, and cost efficiency & 4000 doctors across high growth market. The combined entity now own 74 hospitals across India and Asia Pacific Region, with more than 12,000 beds, 580 primary care centres, 188 day care specialty centres, 190 diagnostic centres and a support of over 23,000 workers.

Conclusion

The results of event studies conducted on the above five mergers reveal that there is significant abnormal returns associated with mergers .The CAR in 2 cases i.e.. Mahindra & Ssangyong and Fortis & Fortis International were found to show high positive correlation while that of other 3 mergers under study was a negative one.Thus merger announcement did show an impact on stock market reactions.

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