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Strategic Acquisition of Piramal Healthcare: An Innovative Methodology to Achieve Performance by Abbott India

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Abstract: This paper examines the acquisition of Indian pharmaceutical company Piramal Healthcare by U.S. Abbott. Abbott acquired Piramal Healthcare in approximately $3.7Bn deal (around INR 17,500 cr.) through its subsidiary Abbott Healthcare Pvt. Ltd (APHL). The deal was announced in May 2010. This work investigate the achievement of operating performance by Abbott (India), formed as a result of Abbott –Piramal Healthcare deal, up to five year post acquisition against a benchmark established using the concept of Economic Value Added.

Mergers and Acquisitions though a century old mode of expansion of entities, adopted by corporate giants all over the world, the surge in these activities during the last three decade owe its reasons first to urge of CEOs for survival and expansion through all ways and avenues to prove their caliber under global recession scenario. Others reasons were reduction in communication and transport cost and trade liberalization followed by government of almost all countries around globe. This work is an attempt by author to have deeper investigation in M&A deal by firstly establishing the threshold limit of performance and then evaluating the actual performance of the deal against the benchmark established. The deal was a win–win situation for both Abbott & Piramal Healthcare as seen in continuously positive EVA improvement and accomplishment of performance benchmark EVA.

Keywords: economic value added, mergers and acquisitions, operating performance.

I. INTRODUCTION

1.1. Mergers and Acquisitions: A General Perception

In past, the primary focus of the companies was to maximize their profit but nowadays maximization of shareholders' wealth has become the main objective of the companies. Management must take decisions after thoroughly analyzing the impact of the decision on the company's share price and dividend that the shareholders would eventually receive.

M&A (*an inorganic mode for expansion*) have become easiest mode to achieve objectives of the firms. Using M&A as mode of expansion facilitates CEOs and in turn management of the company to create value for their shareholders by resorting to those policies which enhances the share's market price through increased synergy and achievement of cost benefits. M&A are undertaken by companies to achieve strategic, tactical and financial objectives. It is undertaken to achieve the net economic advantage. M&A results in synergies or value addition from the firms' joint capacity to raise larger amounts of capital & share managerial expertise (*Ravens craft and Scherer, 1987*).

Corporations, worldwide, resorts to M&A to restructure, realign and reorganize their functionalities to equip themselves to face tough times ahead or to move ahead in time to kill competition. Apart from liquidity, dividend decisions, financing

decisions, M&A are critical investment decisions a CEO makes for her firm. This path may include consolidation, amalgamation and absorption.

1.2. Background: M&A as Growth Strategy

The merging of two companies into one is not a recent idea - there were 'waves'[1] of corporate mergers back in the 1920s, the 1960s and the 1980s (Fairburn and Kay 1989)[2]. The Merger movement is predominantly a U.S. dominant phenomenon, which has witnessed merger waves.

1.2.1. Merger Waves

Mergers activities have been classified by various authors into so called waves by clustering activities during various periods. All of the *Great Merger Movement* [3] occurred when the economy experienced sustained high rate of growth and coincided with particular development in business environments. Firms are not motivated to make large investment outlays when business prospects are not favorable. When favorable business prospects are joined with changes in competitive conditions directly motivating a new business strategy, M&A activities are stimulated resulting in formation of '*mergers waves*'. (See Table 1 below)

Table 1. Merger waves

Name	Period	Facet
First Wave	1897–1905	Horizontal mergers
Second Wave	1916–1929	Vertical mergers
Third Wave	1965–1969	Diversified conglomerate mergers
Fourth Wave	1981–1989	Co generic mergers; Hostile takeovers; Corporate Raiding
Fifth Wave	1992–2000	Cross-border mergers
Sixth Wave	2003–2008	Shareholder Activism, Private Equity, LBO
Seventh Wave*	2008-Present	Survival, Sustainability, Success*

Source: IMMA

Period 1897-1905 is the period of *First merger* movement characterized by horizontal integration. The increase in merger activities during this period were motivated and boosted by expansion in operation, economies of scale and inbuilt counter competition mechanism.

The Second waves from 1916-1929 witnessed vertical integration during mergers and also began with an upturn in business activity in 1922. About 60% of the M&A occurred in the fragmented food processing, chemicals and mining sectors (Salter and Weinhold, 1980, p 4). The motive behind such mergers was to achieve technical gains from integration and to avoid dependence on other firms for raw material.

Third wave from 1965-1969 involved diversification and most mergers activities happened in that period were conglomerate mergers.

In *Fourth wave* of M&A activities *ranging from* 1981-1989 mostly hostile takeovers and corporate raid occurred. Period of 1981-82 was a period of cut throat competition and recession was prevalent at that time. Divestiture became a substantial portion of acquisition activity during the fourth wave.

Fifth wave witnessed cross border mergers and acquisitions activities owing to macro trend of *Globalization of industries deregulation of industrial sectors and also due to increasing trend of takeover bids.*

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* *term coined by the author*

Sixth wave of M&A from period 2000-2008 was driven by increased shareholder participation in firms M&A activities, involvement of private equity players and increased numbers of leveraged buyout activities by new dynamic breed of entrepreneurial talent.

1.2.2. Present Scenario of M&A

Many times, M&A was done to smooth seasonal business fluctuations, sometimes to find requisite investment for firms sitting on large stack of idle cash and sometimes to hedge investment portfolios. Evidences shows that out of such a large number of M&A transaction only few have benefited the shareholders of acquiring companies and major accumulation of wealth occur to the shareholders of target companies. The shareholders of acquiring firms receive either small or zero or even negative returns from mergers.

> *"So many mergers fail to deliver what they promise that there should be a presumption of failure. The burden of proof should be on showing that anything really good is likely to come out of one."*
>
> —Warren Hellman, former head of Lehman Brothers (1994)

II. AIMS AND OBJECTIVES OF RESEARCH

2.1. Objectives of the Research

The current upswing in activity in the domestic market as well as in the global market laid emphasis on the fact that strong conceptual and technical skills are required for anyone working in the field of Mergers and acquisitions. Mergers and Acquisitions may generate tax gains; increases revenue and can reduce the cost of capital. Benefits are manifold, thus, it is necessary that one should have clear insight of the concept before making oneself involve in it. Based on the above discussion, following objectives for the research are formulated

2.1.1. Primary Objective

To critically examine the outcome of selection of inorganic mode of expansion by, US pharma giant, Abbott in its brown field investment of $3.7 billion for acquiring Piramal Healthcare of India in an inbound deal. This work investigate the achievement of operating performance by Abbott- Piramal deal, up to five year post acquisition, against a benchmark established using the concept of Economic Value Added.

III. METHODOLOGY OF THE STUDY

In order to conduct the research work, the Positivist approach is applied.

3.1. Research Strategy

The proposed work is based on Case Studies, which will aim to compare and analyze the efficiency and performance of a company after post M&A with its pre M&A performances against a value set as standard.

3.2. Research Methods for Data Collection

The study is based on secondary information.

3.3. Tools of Data collection

The work plan has emphasized on collection of requisite information and data through the secondary sources. The data is collected from articles, conference speeches, journals, magazines, newspapers, published financial statements, reports of SEBI, official websites of companies etc.

IV. LITERATURE REVIEW

Several researchers have tried to study the performances of acquiring firm post merger. The most popular forms of empirical studies are event studies, accounting studies, clinical studies and executive surveys.

M&A activity's dramatic effects on the shareholders wealth raise the need for thorough assessment on the part of researchers and practitioners to check the validities of company's market value changes and to determine whether all market participants precisely foresee the long term effect of M&A on shareholders wealth. A study of 41 large acquisitions between 1979 and 1990 found a strikingly high correlation between the acquiring company's short-term stock returns and a present value measure of its first five years of post-acquisition operating performance (*M. Sirower and S. Francis*).

Surjit, 2002 carried out an analysis of 20 merging firms to compare the pre & post takeover performance by applying a set of eight financial ratios. He found that profitability and efficiency of merging companies declined in the post takeover period. *Swaminathan* (2002) studied the sample of five companies & found that four of the five acquiring firms improved operating and financial synergies (measured through financial ratios). *Arora* (2003) examined the post merger performance of merged companies using the value added metrics of corporate performance such as Economic Value Added (EVA), Market Value Added (MVA) and Return on Net-Worth (RONW).

The analysis conducted by means of analyzing the abnormal operating performance are divided into two groups; those using the earning based measures and those using cash flow based figures. *Ravenscraft and Scherer* (1987) used both approaches and concluded that when measuring the performance by use of accounting profitability a decline in wealth was detected whereas when the analysis was based on cash flow no decline was found which was also supported by *Ghosh* (2001).

Khemani (1991) states that there are multiple reasons, motives, economic forces and institutional factors that can be taken together or in isolation, which influence corporate decisions to engage in M&As. It can be assumed that these reasons and motivations have enhanced corporate profitability as the ultimate, long-term objective. Another study shows that merger did not lead to excess profits for the acquiring firm (*Pawaskar*, 2001). *Mantravedi and Reddy* (2008) investigate Indian acquiring firms and found that there are minor variations in terms of impact on operating performance following mergers in different sectors of Indian industries.

V. LIMITATION OF ABOVE STUDIES

The following are limitations of the various studied mentioned above:

The studies have taken only mergers and leaving acquisitions in most cases. Absence of establishment of any standard for the measurement of post M&A operating performance further limits these studies.

With this back drop, here an attempt has been made in this paper to address some of the above issues not taken up in previously conducted work, which are as follows-

- The present work has studied acquisition of Piramal Healthcare of India by US pharma company Abbott.

- Established a standard EVA performance against which the post M&A performance will be evaluated.

- Measurement of performance through both operating and financial perspective.

VI. THE FINANCIAL MODEL

6.1. Introduction: Economic Value Added (EVA)

A metric that not only helps in measuring company's true economic profit but is also a professedly recent innovation in the field of internal and external performance measurement is a trade-marked variant of residual income known as Economic Value-Added (EVA).

Economic Value Added estimates a particular type of economic profit, which states that in order to earn genuine profits, it is not only necessary for a company to earn sufficient profit to cover the firm's operating costs, but also to cover the cost of capital. A positive EVA indicates that value has been created for shareholders by the company, and a negative EVA signifies that value has been destroyed by the firm during the period of operation.

The concept of Economic Value Added or EVA is useful & accurate for performance evaluation. It allows us to dissect a company's market value into its known and expectational components i.e. EVA improvement which facilitates measurement of future growth value of combined entity.

In true sense, acquirer bet on future expected performance of combined entity while keeping in mind the pre existing performances of individual concern and then afterward zeroed on the premium to be paid to the shareholder of the target firm. This entire process involves allocation of capital for the investment that has cost associated with it, sometimes referred as opportunity cost of funds. Moreover stock prices of the firms involved in the process of M&A reflects cumulative expectations of all the shareholders, current as well as prospective investors, about the future performance, so it is more important that cost of capital needs to be recovered sufficiently to preserve value.

6.2. Performance Improvement: Change In Economic Value Added (ΔEVA)

The requisite standard value needed to adjudge post acquisition performance must take into account the improvement in performance after discounting performance improvements already priced in pre acquisition market values of security, of both the firms: the acquirer and the acquiree, independently. It is even more desirable to quantify the market expectations and to gets its reflection in current prices of stock while evaluating the success of M&A for the shareholder of the acquiring firm. It is this market expectation that lays the foundation of performance standard value.

6.3. Devising a Model

In narrow sense, the market value of firm is the summation of its value of debt and its value of equity. Evaluating the success of M&A, as already stated earlier, involves segregating the market value of firm into its realized i.e. known component and component incorporating future expectations.

It is a well established fact and need to be noted here that only after recovering the cost of capital invested in shaping the acquisition, the acquirer can begin to reap benefits for their shareholders from M&A activity. Another question will be whether the benefits they are reaping is the same or better than the benefits they are reaping before investing new capital. Answer to these questions, though in approximation, must be found before management actually proceeds with acquiring a target.

Modigliani & Miller (MM) had proposed in their work that if free cash flow (FCF) accruing to the firm is discounted by taking weighted mean capital cost as base, the discounted or present value so arrived at will represent market value of firm.

Using the Modigliani & Miller's formula for deriving the present value of firm from free cash flow, we get market value of firm as

$$\textbf{Present Market Value of Firm} = \sum_{t=0}^{\infty} \frac{(NOPAT - Investment_t)}{(1+c)^{t+1}} \qquad \textbf{(1)}$$

Where:

NOPAT: *Net Operating Profit after Taxes at the end of the year*

c: *Cost of Capital to the firm for funds required for M&A*

Investment here represents any new capital investment required to be made by the firm (in this case acquirer) at the end of the year, rendering benefits over longer period of time.

Value calculated from above though can render a reliable measure of the value of firm, use of free cash flow has its limitation as it fails to evaluate true operating performance of firm on annual basis. The reason to this, belong to the fact that the entire investment cost is charged in the year of investment itself instead of spreading it to over a period of its benefits.

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By making an adjustment in the above formula and introducing the concept of economic value added instead of free cash flow, this limitation can be eliminated & the value of the firm can be calculated in an effective manner.

Economic Value Added is arrived at after deducting Effective Capital Cost (ECC) from NOPAT.

$$\text{Economic Value Added} = \text{NOPAT} - \text{ECC} \qquad \textbf{(2)}$$

Effective Capital Cost (ECC) is arrived at as a product of Capital investment and Weighted Mean Capital Cost

$$\text{Effective Capital Cost} = \text{Capital Investment} * \text{WACC} \qquad \textbf{(3)}$$

Mark L. Sirower, of the New York University, presented his article on 'New Frontiers in Mergers and Acquisitions Research' in a Symposium in 1997 at Academy of Management Meetings, Boston, MA and pointed out that if for a firm the initial capital invested is added to the discounted future economic value added ,we can equate it to the discounted future free cash flow and in turn to market value of firm.[4]

According to him as the discounted value of capital consumption & capital cost for EVA can be equated to cost of initial investment for FCF, the discounted value of any newer investment is same in case of both Economic Value Added (EVA) & Free Cash Flow (FCF).

In other words,

Market Value of Firm = Discounted Future EVA+ Initial Investment of Capital

Now, by utilizing the concept of Economic Value Added and segregating the firm's value (acquirer) into its present known component and component for future expectation involving growth element by using MM equation (1961,416, Eq12) work on Dividend Policy Growth and Valuation of Shares, Journal of Business, University of Chicago (Vol XXXIV, No. 4) in October 1961[5]

$$\frac{X_0}{p} + \sum_{t=0}^{\infty} I_t [p*(t) - p)]/[p(1+p)^{t+1}]\dots\dots\dots\dots\dots\text{Equation}\dots A$$

Where:

X_0: is uniform perpetual earning on the current asset base

I_t: is the investment at the end of the year t

p*(t): is the constant rate of return on **I_t** and **p** is the cost of capital

O'Byrne (1996) has transformed above **equation A** given by MM, and derived a generalized form for obtaining Economic Value Added's known & future expectional component as

Present Market Value = Book Capital $_{t=0}$ + (NOPAT- c* Capital $_{t=-1}$)+ Δ EVA of Firm.....Equation B

i.e.

$$MV_0 = Cap_0 + EVA_0 / c + [(1+c)/c] * \sum_{t=1}^{\infty} \Delta EVA_t /(1+c)^t \qquad \textbf{(4)}$$

c is the weighted average cost of capital (WACC) using long rerm treasury return, target's beta, and risk premium (if any).

The first term Cap_0 calculates the Invested Capital of the Target (using Total Assets- Short and Long Term Non Interest bearing Liabilities-Deferred taxes+ Cumulative Amortization (for goodwill written off, if any). The second term Capitalizes the targets's cureent Economic Value Added at weighted average cost of capital (c). The first two term combined in above equation captures the known component of EVA or current operation value.

The third term will capture the growth in EVA or change in EVA i.e Δ EVA. This discounted value of expectational annual growth in EVA is also termed as Future Growth Value or FGV.

For any capital investment like M&A, investors desires a return high enough to recapture cost of capital on current operation value as well as on future growth value & hence an adequate return of cost of capital on total market value is all what is actually desirable.This lays the very basis of standard performance against which any merger & acquisition performance can be evaluated.

While focussing on achieving cost of capital return on FGV or expectational component of EVA or Δ EVA in today's competitive scenario, each and every company almost have positive change in their future growth value i.e. Δ FGV > 0. But by taking an assumption of constant change in FGV i.e. Δ FGV =0, will simplify our model and is recommended to dimmune the complexity of calculations.

The consequence of this assumption, on acheiving a cost of capital return on an expected EVA improvement or FGV ,requires fulfillment of equation

FGV_0 * c = Change in EVA_1 + Perpetual Value of EVA_1 + Change in FGV_1 **(5)**

Or,

FGV_0 * c = Δ EVA_1 + ΔEVA_1 /c + Δ FGV_1 **(6)**

On assuming constant FGV , Δ FGV_1=0 We get,   **(7)**

FGV_0 * c = Δ EVA_1 + ΔEVA_1 /c ....Equation C

For any capital investment particularly, M&A ,having long term consequences, irrevocable, complex in nature and future centric, it is highly essential to assess the impact before proceeding to make the actual investment.

Right side of **equation (C)** depicts future expectational Economic Value Added in its current and perpetual form that contributes value not only to current FCF (free cash flow) but also to current operational value in perpetuity. For a unit of money worth of EVA improvement there is a contribution of (1+c)/c times to value.This can be explained as below using **equation C**

FGV_0 * c = Δ EVA_1 + ΔEVA_1 /c ....Equation C

Or

FGV_0 * c = Δ EVA_1 (1+1/c) or Δ EVA_1 (1+c)/c ....Equation C1

Or

Δ EVA_1 = FGV_0* [c*c]/(1+c)...Equation C2

In all, above equations provide that 1 unit money of EVA improvement add 1 unit money to current free cash flow & perpetual value 1/c to current operation value which makes total contribution of each unit of money of ΔEVA to (1+c)/c of value.

6.4. Steps for Application of Methodology

The basic steps required to evaluate the post acquisition performance of acquirer against our value based benchmark are listed below. These steps, though not exhaustive, are major stages for operating performance evaluation post merger & acquisition which will mark the success of any deal.For evaluation of deal already happened, these variables are to be easily determined and available ready hand.

Step1: Determine the Pre Acquisition Market Value of Target, without taking into consideration the Premium, if any, paid in the deal.

Step2: Determine the Market Capitalization of Target prior to the announcement of the Deal (Use Market Equity +Book Debt as value and take Five days prior period value before the deal is announced).

Step3: In the next step, calculate the Invested Capital of the Target (use Total Assets- Short and Long Term Non Interest bearing Liabilities-Deferred taxes+ Cumulative Amortization (for goodwill written off, if any)

Step4: Determine Weighted Average Cost of Capital (WACC) using Long Term Treasury Return, Target's Beta, and Risk Premium.

Step5: Next Step is to calculate Target's current NOPAT (Net Operating Profit after Tax) and EVA (Economic Value Added) using Target's prior year Opening Capital.

- For calculation of NOPAT, add Net Income, Preferred Dividend,Minority Interst Income after –Tax Interest & Amortization.

Step6: Capitalize the Target's current EVA obtained under **Step 5** at WACC (**obtained in Step 4**)

Step7: In the next step, add Invested Capital (**from Step 3 above**) to the value of Capitalized EVA obtained in **Step 6** to get Target's Current Operation Value.

Step8: Last step with regards to calculations of variables of standalone Target is to obtain Target's Future Growth Value. For this deduct Current Operation Value of Target (from **Step 7 above**) from its Market Capitalization Value (from **Step 2 above**).

In our use of this methodology, as we discussed prior, the Target's Future Growth Value (FGV) obtained above in point 8 represents present value of expectational EVA improvement on which investors expects a cost of capital return along with a return on current operation value. In other words, the investors expect a cost of capital return on total market value. On multiplying the value obtained in **Step 8** i.e. FGV with WACC (Weighted Average Cost of Capital from step 4) we get in money worth, the return on Target's expected future growth value (FGV).

In light of assumptions for application of this methodology discussed earlier, 1 unit of money worth of EVA improvement add (1+c)/c of value et.al. At Δ FGV =0 (assume), the company need to achieve **[Return on FGV /(1+1/wacc)]** of EVA improvement.

Premium paid by the acquirer is added to the future growth value of target. The effect of involvement of premium so paid, in the deal of M&A, will affect the future growth value of target and also raise the return required on it. Conceptually, expected economic value added improvement will also be raised. Our assumption of constant FGV or Δ FGV =0 ,results in to the fact that

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current operation value remain same unless any performance improvement happens and a constant return on FGV, thus, it in turn becomes the goodwill of the entity.

In the last stage of performance evaluation, the standalone performance of acquirer is to be determined prior to the announcement of the deal. The value so determined will be used to combine it with the performance variables of the target (as standalone along with the premium paid, if any) in order to create the base period proforma.

This performance base year EVA obtained will be utilized to evaluate real post acquisition EVA improvements. The acquirer must achieve this post acquisition EVA improvement reflected in the proforma of the combined entity in order to earn an adequate return on cost of capital on its pre deal market value in addition to a return on its investment to acquire the target.

Expected EVA improvements are compared with actual EVA improvements. The discounted or present value of the difference between these two is found out. The capitalized value of this discounted value would be the additional performance achieved in excess of the benchmark performance.

6.5. Fine Points to be taken into Account while Implementing the Methodology

- Use base capital for proforma entity as acquirer's book capital+ price paid for the purchase of the target while using purchase method.

- Use base capital as sum of acquirer's and target book capital in case of applying pooling accounting.

- Use sum of target and acquirer's NOPAT, one year prior to the date of acquisition to obtain NOPAT of the combine entity.

Capital cost of combined entity is the average of cost of capital of both target as well as acquirer by taking their market capitalization as weights.When a company involved in the deal is an unlisted one, then book value of capital employed of the company may be used as weight to calculate combined weighted cost of capital.

VII. PARTIES TO THE DEAL

Abbott Laboratories, USA (Abbott Lab) was established in Illinois, USA in March 1900. It is listed in New York Stock Exchange, Swiss Stock Exchange as well as in London Stock Exchange. Abbott is engaged in research, development, manufacturing & sale of diverse range of health care products.

Abbott Health Care Private Ltd. (AHPL) is incorporated under Indian Companies Act, 1956 in January 1, 1997 and is wholly owned subsidiary of Abbott Lab. AHPL manufacture and sell allopathic pharma preparations and nutritional products. It is also engaged in selling of medical equipments.

Piramal Healthcare Ltd. (Piramal Healthcare) is listed on Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) and is an Indian public company established under Indian Companies Act 1956. Ajay G. Piramal, the promoter of Piramal Healthcare, hold nearly 52.1 %.

The Deal

US based Abbott Laboratories through its Indian subsidiary Abbott Healthcare Pvt.Ltd (AHPL) acquired Indian pharmaceutical company Piramal Healthcare's generic business in $3.7Bn (approx. Rs. 17,500 crore) deal. The deal was announced in May 2010 and terms of deal includes immediate cash payment of $2.12 Bn and annual payment of $400 million in addition from 2011 for next four years. Chairman of group's holding company Piramal Enterprises, Ajay G. Piramal being satisfied with the valuations has planned to invest the proceed in related and other remaining businesses. In his words " It is the best business available in India growing at 25 percent annually from past two years". He was assured of Piramal Healthcare's progress in the hands of Abbott. He adds " Abbott –Piramal deal would put drug research on a faster track".

Part of sale proceed will be utilized to redeem company's debt liability of $227 million (approx. Rs 13 Bn). Also as per terms of deal, promoters of Piramal Healthcare would not compete with Abbott in India or abroad in making generic drug for eight years post deal, though Piramal Healthcare would continue to pursue its R&D activities through its affiliate Piramal Life Sciences Ltd.

The day deal was announced share of Abbott rose nearly 46 percent on New York Stock Exchange whereas share of Piramal Healthcare seen a dip of nearly 12 percent due to pessimism on part of Piramal's investors as they considered sale of Piramal Healthcare as sale of company's most valued asset. Abbott- Piramal deal comes next to Daiichi Sankyo-Ranbaxy deal of $4.2 Bn in 2008 and is India's second biggest deal in pharmaceutical industry.The deal was a win-win situation for both the companies as Piramal Healthcare not only gets good valuation but there cash need for R&D and other businesses were satiated. On the other hand, Abbott with no popular presence in India became top player in India pharma industry with close to 7 percent market share with 350 plus generic drugs from rich portfolio of Piramal Healthcare. Abbott was betting on India's emerging and growth oriented pharma industry. This acquistion though small in size would help Abbott to face competition from other global market leaders. According to Business India, a Mumbai based business magazine –" the deal is intended to consolidate Abbott's toehold in India". Abbott CEO Miles White said " Emerging market are very significant for us and it's important for us to be here in meaningful, strong way". It was reported that the deal would require Abbott to borrow on short term basis in a significant manner that would cause review of Abbott's rating by Moody's Investor Services. However, Abbott denied that and intended to settle the deal from company's cash reserves.

World's affluent pharma companies Pfizer, GlaxoSmithKline, Daiichi including Abbott's presence in emerging markets was the direct result of budget belt tightening government's programs to force companies to bring down the cost of drugs and health care. It also has inherent economic importance for foreign companies as emerging markets grows at 14-17 percent in comparison to 3-6 percent growth in developed markets. Not only emerging market offers lucrative business opportunities for them but also as emerging markets like India are mostly 'self pay' these large companies, like Abbott, considered that their businesses will be self sustaining. Moreover, low cost of production and presence of scientific talent in India makes Indian acquisition attractive and strategically fit for Abbott. The deal awaits approval of shareholders of Piramal Healthcare by ordinary resolution as required under Section 293(1)(a) of Indian Companies Act by any company who undertakes a sale of whole or part of its undertaking.

Earlier, Abbott has also entered in collaboration with Cadila Healthcare Ltd. for the supply and licencing of generic drugs in India and their home market.With Piramal Healthcare's acquisition, Abbott India's estimated annual revenue to touch $2.5Bn mark by 2020 with average annual growth rate of 20percent. As the deal was a slump sale i.e. Business Transfer that resulted in transfer of 55 percent of Piramal Healthcare business to Abbott Healthcare Private Ltd. as going concern so as per Section 50B of Income Tax Act 1961, the deal will attract long term capital gain tax @ 20 percent in the hands of Piramal Healthcare.

The deal in conclusion is no doubt a precursor to better times ahead for other Indian drug pharma companies that are struggling to survive in the recessionary conditions but simultaneously second time, after Ranbaxy's surrender to Daiichi Sankyo, hopes have dashed of a Indian drug major securing a visible presence in the pharmaceutical industry as a true global player.

(1) Calculation- Piramal Healthcare Limited (PHL)

Deal Value   = $3.7Bn

Deal premium = 50 per cent approximately as there were other bidders involved in the deal

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(a) **For Piramal Healthcare (PHL) -2009**

(i)	Market Value (Debt+Equity)	= $0.93
(ii)	Treasury Yield (R_f)	= 7.6%
(iii)	Risk Premium (R_m-R_f)	= -44.5%
(iv)	Beta	= 0.80
(v)	Cost of Debt (post tax)	= 8.2%
(vi)	Cost of Equity	= 19.1%
(vii)	Tax Rate	= 33%
(viii)	Debt-Equity Ratio	= 1.02
(ix)	WACC	= 13.6%
(x)	Capital Employed one year prior (2008)	= $0.4Bn

(b) EVA of **PHL (2009)** = NOPAT - (WACC* Capital$_{-1}$)

$$= \$0.09Bn - (0.1360 * \$0.40Bn)$$

$$= \$0.09Bn - \$0.05Bn \text{ or } \$0.04Bn$$

(c) Current Operation Value of **PHL** (2009) = (EVA/c) + Capital$_0$

$$= \$0.04Bn/0.1360 + \$0.46Bn$$

$$= \$0.30Bn + \$0.46Bn \text{ or } \$0.76Bn$$

> Applying, .. Equation B
>
> Market Value = Current Operation Value + PV of Expected EVA Improvement,or,
>
> Market Value = Capital$_0$ + Capitalized EVA (EVA/c) + PV of Expected EVA Improv.

$0.93Bn = $0.46Bn + $0.30Bn + PV of Expected EVA Improvement

Therefore, PV of Expected EVA Improvement= $0.17Bn

Investors expects return on Market Value of $0.93Bn at WACC 0.1360 i.e. ($0.93Bn*0.1360) = $0.126Bn of which ($0.17Bn*0.1360) = $0.023Bn represents expected return on Piramal Healthcare Limited future growth value.

Assuming $\Delta FGV = 0$, to provide return of $0.023Bn or $23mn on PHL future growth value, the company need to acheive,

$0.023Bn/$8.35 = $0.003Bn or $3 million of ΔEVA improvement in perpetuity as each $1 of EVA improvement contribute $8.35 of value.

(using $1+$1/0.1360 = $8.35- *See Equation C above*)

(2) Effect of Premium paid

Effect of paying approximately 50 percent premium by Abbott Healthcare Private Limited (AHPL) now Abbott India would result in enhancement of future growth value of Piramal Healthcare Limited PHL ($0.17Bn) by amount of premium i.e. $0.17Bn+ $1.23Bn = $1.4Bn. So, Future Growth Value of Piramal Healthcare Ltd would be ($1.4Bn *0.1360) = $0.190Bn as against $0.023Bn computed above & correspondingly Expected EVA improvement required would also be enhanced. Therefore,

using ($0.190Bn/$8.35) = $0.023Bn or $23 million annual expected EVA improvement is required to provide cost of capital return on $1.4 FGV.

(3) Calculation AHPL (standalone)

(a) For Abbott Healthcare Private Ltd (AHPL)-2009

(i)   Market Value (Debt +Equity)   = $0.11Bn

(ii) Treasury Yield (R_f) -5YR   = 7.6%

(iii) Cost of Debt after tax   = 0%

(iv) Debt–Equity Ratio (no debt in B/S)   = 0

(v)   Cost of Equity   = 4.86%

(vi) Risk Premium ($R_m - R_f$)   = -44.5%

(vii) Beta   = 0.28

(viii) WACC   = 0.0486

(ix) Capital Employed one year prior (2008)   = $0.05Bn

(b)   EVA of **Abbott India AHPL (2009)** = NOPAT- (WACC* Capital$_{-1}$)

$$= \$0.016Bn- (0.0486*\$0.05Bn)$$

$$= \$0.014Bn$$

(c)   Current Operation Value of **AHPL (2009)** = (EVA/c) + Capital$_0$

$$= \$0.014Bn/0.0486 + \$0.06Bn$$

$$= \$0.29Bn+\$0.06Bn$$

$$= \$0.35Bn$$

Applying, .. Equation B

Market Value = Current Operation Value + PV of Expected EVA Improvement,or,

Market Value = Capital$_0$ + Capitalized EVA (EVA/c) + PV of Expected EVA Improv.

$0.11Bn = $0.06Bn+ $0.29Bn + PV of Expected EVA Improvement

Therefore, PV of Expected EVA Improvement= -$0.24Bn

(4) Abbott India (Combined)

(a) *Market Value of Abbott India (combined)* = Market Value AHPL+ Market Value of PHL +Acquisition premium (if any)

M.V. of Abbott India (combined) **MV$_{combined}$** = $0.11Bn+ $0.93Bn+ $1.23Bn

Or   **MV$_{combined}$** = $2.27Bn ~ $2.3Bn

(b) *Combined Invested Capital (Capital$_{combined}$)*

(purchase method is used in case of acquisition)

= Book Capital of AHPL (2009)+ Purchase Price of PHL

= $0.06Bn+ $3.7Bn   or **Capital$_{combined}$** = $3.76 Bn ~$3.8Bn

(c) *NOPAT of Abbott India combined-* (**NOPAT$_{combined}$**)

= NOPAT of AHPL + NOPAT of PHL

= $0.016Bn + $0.09Bn = $0.106Bn~ $0.11Bn

(d) *WACC of Abbott India (combined)* (by market value of two companies)
WACC$_{combined}$ = 0.1234 (Mcap of AHPL = $0.11Bn, PHL = $0.65Bn)

Calculation of Benchmark Performance (Post Deal):

(5) Expected EVA & EVA improvement of combined entity

(a) Expected EVA of Abbott India (combined)

= NOPAT$_{combined}$ - (WACC$_{combined}$*Capital$_{base}$ or Capital$_{-1}$)

EVA$_{combined}$ = $0.11Bn - (0.1234*$0.52Bn)

EVA$_{combined}$ = $0.11Bn- $0.064Bn

EVA$_{combined}$ = $0.046Bn ~$0.05Bn

(b) Current Operation Value of Abbott India (combined)

= (EVA$_{combined}$ /c) + Capital$_{combined}$

= ($0.05Bn/0.1234)+ $3.8Bn

= $0.41Bn + $3.8Bn

= $4.21Bn

Applying, .. Equation B

Market Value = Current Operation Value + PV of Expected EVA Improvement,or,

Market Value = Capital$_0$ + Capitalized EVA (EVA/c) + PV of Expected EVA Improv.

$2.3Bn = $3.8Bn+ $0.41Bn + PV of Expected EVA Improvement

Therefore, PV of Expected EVA Improvement= -$1.91Bn

So, Investors' expectations for return on total combined market value of $2.3Bn is ($2.3Bn* WACC$_{combined}$) or $0.284Bn out of which return on future growth value of Abbott India (combined) would be (PV of Expected EVA Improvement* WACC$_{combined}$) i.e.

Return on Abbott India Combined FGV= (-$1.91Bn* 0.1234) or -$0.24Bn

With our assumtion of Δ FGV = 0, to provide return of -$0.24Bn or -$240 million on Abbott India (combined) future growth value, the company need to acheive,

-$0.24Bn/$9.104 = -$0.026 Bn or -$26 million of ΔEVA improvement in perpetuity as each $1 of EVA improvement contribute $9.104 of value.

(using $1+$1/0.1234 = $9.104- *See Equation C above*)

Actual performance in relation to performance benchmark

Analysis on Abbott India (combined)[&] on Proforma Base Figure

The relevant extract from acquirer company's financial report has been reproduced below.

Base Year   (fig.in billion dollars)

S.No.	Year Ending March 31st	2009	2010	2011	2012	2013	2014	2015
1.	Capital employed (average)[#]	0.52	3.8*	2.84	2.61	3.28	3.22	3.12
2.	Average debt/total capital (%)	0	0	0	0	0	0	0
3.	Beta variant (β)	0.28	0.30	0.36	0.4	0.4	0.4	0.4
4.	Risk free debt cost (%) (R_f)	7.6	7.2	7.9	8.4	7.4	7.4	7.4
5.	Market premium $(R_M - R_f)$	-44.5	74.8	4.2	-17.3	2.1	23.6	-3.4
6.	Cost of Equity (%)	-4.86	29.64	9.41	1.48	8.24	16.84	6.04
7.	Cost of Debt (post-tax) (%)	0	0	0	0	0	0	0
8.	Weighted Average Cost of Capital (WACC) (%)^	12.34	12.34	12.34	12.34	12.34	12.34	12.34
	Enterprise Value (EV)[@]							
	Market Value of Equity	0.1(0.84)	0.3(1.9)	0.6(1.7)	0.6(1.5)	0.5(1.7)	0.63(1.6)	1.3 (2.4)
	Value of Debt	0.28	0.28	0.16	0.38	1.31	1.57	1.14
9.	Enterprise Value[<]	1.22	2.48	2.46	2.48	3.51	3.8	4.84
	Computation of Economic Value Added (EVA)							
	Average Capital Employed [#]	0.52	3.8*	2.84	2.61	3.28	3.22	3.12
	NOPAT[!] (refer table below)	0.11	0.14	0.08	0.09	0.09	0.12	0.12
	WACC	0.1234						
10.	**EVA**	0.046	-0.33	-0.27	-0.23	-0.31	-0.28	-0.27
11.	Improvement in EVA	-	-0.376	+0.06	+0.04	-0.08	+0.03	+0.01
12.	EVA as per Performance Benchmark	-	-0.026	-0.026	-0.026	-0.026	-0.026	-0.026
13.	Excess/negative EVA improvement against Benchmark		-0.35	+0.086	+0.066	-0.054	+0.056	+0.036

& Figures in upper part of previous table are of Abbott India (standalone)(except capital employed) and EVA computation ultilizes

  combined data of Abbott India (standalone) and Piramal Healthcare Ltd PHL (consolidated) as Piramal Healthcare Ltd works

  as an independent entity after its acquisition.

* For Combined capital of two entities,one year after proforma base year (2009) i.e. 2010 purchase price of PHL (including   premium) is used along with book capital of Abbott India for 2009.

 # Book value of Capital of two entities Abbott India and PHL is utilized for 2009 & 2011 onward for EVA computation as

  both Abbott India and PHL works independently.

@ Enterprise value of Abbott India (AHPL and PHL combined) include Debt of PHL only as Abbott's Indian arm has no book

  debt.

  Figures in bracket (-) are market value of equity of PHL and figures outside bracket are market value of equity of Abbott India

  (APHL).

^ WACC in point 8 in previous page table is weighted average cost of capital of two entities combined together by their market

  capitalization.

! NOPAT given in table is combined NOPAT of Abbott India i.e. of AHPL and PHL both (as they work independently even after

  deal)

~ Solvay Pharma Ltd's merger with Abbott India in 2011-12 might have generated +/- impact on performance (is

  assumed constant and is been considered as Abbott India fiancials only in present analysis)

< Entetprise value is computed by taking combine of Market Value of Equity of both AHPL and PHL and Debt of

PHL only.

- Taxes paid in the year 2011 and 2015 for PHL were high due to huge capital gain tax involved hence adjusted for

NOPAT

NOPAT OF AHPL AND PHL (in Billion USD)

	2008	2009	2010	2011	2012	2013	2014	2015
PHL NOPAT	0.090	0.090	0.130	0.050	0.060	0.060	0.090	0.080
AHPL NOPAT	0.014	0.016	0.013	0.026	0.027	0.030	0.030	0.036
COMBINED	**0.104**	**0.106**	**0.143**	**0.076**	**0.087**	**0.09**	**0.12**	**0.116**

NOPAT for year 2013 & 2014 for AHPL (Abbott India standalone) are adjusted as in 2013 there was no AGM.

VIII. FINDING

The deal was a win–win situation for both Abbott & Piramal Healthcare as seen in continuously positive EVA improvement and accomplishment of performance benchmark EVA. Former had the expertise and vast establishment of R&D whereas Piramal Healthcare provided requisite brand value, ready 'self pay' market and low cost qualified manpower that made the acquisition strategic fit for Abbott.

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