

A Major Project Report
On

Effective Pricing & Valuation of Mergers & Acquisitions

Submitted for the award of the degree of Executive MBA

by

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Delhi School of Management
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**Effective Pricing & Valuation of
Mergers & Acquisitions**

CERTIFICATE

It is to hereby certify that the project titled “**Effective Pricing & Valuation of Mergers & Acquisitions**” submitted by Samuel Christy in partial fulfillment of the requirements of the degree of Executive MBA in Delhi School of Management, Delhi Technological University, Delhi is a record of original work carried out by him under my guidance and supervision. I further certify that the work is original and is not based, derived or reproduced from existing work and has not been submitted elsewhere for the award of any degree or diploma.

Under the Guidance of:

Dr. P.K. Gupta
(Guest Faculty)

Place:

Date:

DECLARATION

I, Samuel Christy, do hereby declare that the project entitled “**Effective Pricing & Valuation of Mergers & Acquisitions**” is an original work, carried out as partial fulfillment of the requirement of the degree of Executive MBA in Delhi School of Management, Delhi Technological University, Delhi.

Samuel Christy

Date:

EMBA (2013-2015)

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With regards

(SAMUEL CHRISTY)

Executive MBA

ABSTRACT

Valuation is the process of estimating the market value of a financial asset or liability. Valuations can be done on assets (for example, investments in marketable securities such as stocks, options, business enterprises, or intangible assets such as patents and trademarks) or on liabilities (e.g., Bonds issued by a company). Valuations are required in many contexts including investment analysis, capital budgeting, merger and acquisition transactions, financial reporting, taxable events to determine the proper tax liability, and in litigation.

International mergers and acquisitions have become the preferred mode of overseas investment by multinational companies, accounting for the bulk of FDI in the developed world and for increasing shares in the developing world. International mergers and acquisitions (M&As), particularly those with giant transnational companies (TNCs) spending vast sums of money to take over firms in other countries, are one of the most visible aspects of globalisation.

Mergers & Acquisitions have been very much in the news. Although many mergers are taking place, the success rate of a flourishing business after mergers and acquisitions is quite small.

In a competitive bidding situation, a company may tend to pay more. Often highest bidder is one who overestimates value out of ignorance. Though he emerges as the winner, he happens to be in a way the unfortunate winner. The benchmark portfolio of acquirer dominates the merger portfolio of acquirers that paid highest premiums to the target firms. The overpayment may be a possible reason for the long-run underperformance of some acquiring firms. When the acquirer fails to achieve the synergies required to compensate the price, the M&A fail. More one pays for a company, the harder he will have to work to make it worthwhile for his shareholder. When the price paid is too much, how well the deal may be executed, the deal may not create value.

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In this context I have tried to evaluate the acquisition of Balrampur Chini Limited by ITC i.e. whether ITC should go ahead for acquiring Balrampur Chini Limited

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1. INTRODUCTION

1.1 Sugar Industry

In an era where there is a need for inclusive growth, the sugar industry is amongst the few industries that have successfully contributed to the rural economy. It has done so by commercially utilizing the rural resources to meet the large domestic demand for sugar and by generating surplus energy to meet the increasing energy needs of India. In addition to this, the industry has become the mainstay of the alcohol industry. The sector supports over 50 million farmers and their families, and delivers value addition at the farm side. In general, sugarcane price accounts for approximately 70 percent of the ex-mill sugar price.

The sector also has a significant standing in the global sugar space. The Indian domestic sugar market is one of the largest markets in the world, in volume terms. India is also the second largest sugar producing geography. India remains a key growth driver for world sugar, growing above the Asian and world consumption growth average.

While the sector grows in stature and continues to play a key role in the economy, it is expected to face some significant challenges. There is lack of alignment between sugarcane and sugar prices. As a result, it leads to cane payment arrears and induces cyclicity. The arrears typically result in the eventual need for government support packages, while the pronounced cyclicity destabilizes the sector revenues. The average sugarcane yields have also, at best, stagnated, and the average recovery is amongst the lowest in comparison with key sugar producing nations. Large sugar inventory exposure and sugar price volatility also results in high sugar price risk for the sector. In the past ten years, on an average basis, even the large listed sugar firms have struggled to generate Return on Invested Capital (ROIC) over and above their cost of capital. This is primarily due to high mandated fixed cane prices and volatile sugar prices.

In line with its shared vision, going forward, the sector has a number of transformational opportunities. These opportunities have remained largely untapped.

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The industry has the potential to cater to the large and growing domestic sugar consumption and emerge as a significant carbon credit and power producer. It is also in a position to support the ethanol blending programme of E5 and beyond. Further, the industry can improve its cost competitiveness through higher farm productivity and by managing the domestic production variations through international trade with a focus on countries in the Indian Ocean. Thus, the transformed sector would be less cyclical with greater alignment between sugarcane and sugar prices, and will have stable diversified sources of revenue.

Business Roadmap 2017 aims at transforming the sector to unlock its potential by realizing the key opportunities by 2017. Transformation opportunities are critical for achieving the vision, and are also largely untapped.

1.2 Organization profile

ITC (Acquirer)

ITC is one of India's foremost multi-business enterprise with a market capitalisation of US \$ 45 billion and a turnover of US \$ 7 billion. ITC is rated among the World's Best Big Companies, Asia's 'Fab 50' and the World's Most Reputable Companies by Forbes magazine and as 'India's Most Admired Company' in a survey conducted by Fortune India magazine and Hay Group. ITC also features as one of world's largest sustainable value creator in the consumer goods industry in a study by the Boston Consulting Group. ITC has been listed among India's Most Valuable Companies by Business Today magazine. The Company is among India's '10 Most Valuable (Company) Brands', according to a study conducted by Brand Finance and published by the Economic Times. ITC also ranks among Asia's 50 best performing companies compiled by Business Week.

History

ITC was incorporated on August 24, 1910 under the name Imperial Tobacco Company of India Limited. As the Company's ownership progressively Indianised, the name of the Company was changed from Imperial Tobacco Company of India Limited to India Tobacco Company Limited in 1970 and

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then to I.T.C. Limited in 1974. In recognition of the Company's multi-business portfolio encompassing a wide range of businesses - Fast Moving Consumer Goods comprising Foods, Personal Care, Cigarettes and Cigars, Branded Apparel, Education and Stationery Products, Incense Sticks and Safety Matches, Hotels, Paperboards & Specialty Papers, Packaging, Agri-Business and Information Technology - the full stops in the Company's name were removed effective September 18, 2001. The Company now stands rechristened 'ITC Limited,' where 'ITC' is today no longer an acronym or an initialised form.

A Modest Beginning

The Company's beginnings were humble. A leased office on Radha Bazar Lane, Kolkata, was the centre of the Company's existence. The Company celebrated its 16th birthday on August 24, 1926, by purchasing the plot of land situated at 37, Chowringhee, (now renamed J.L. Nehru Road) Kolkata, for the sum of Rs 310,000. This decision of the Company was historic in more ways than one. It was to mark the beginning of a long and eventful journey into India's future. The Company's headquarter building, 'Virginia House', which came up on that plot of land two years later, would go on to become one of Kolkata's most venerated landmarks.

Multiple Drivers of Growth

ITC's aspiration to create enduring value for the nation and its stakeholders is manifest in its robust portfolio of traditional and greenfield businesses encompassing Fast Moving Consumer Goods (FMCG), Hotels, Paperboards & Specialty Papers, Packaging, Agri-Business, and Information Technology. This diversified presence in the businesses of tomorrow is powered by a strategy to pursue multiple drivers of growth based on its proven competencies, enterprise strengths and strong synergies between its businesses.

The competitiveness of ITC's diverse businesses rest on the strong foundations of institutional strengths derived from its deep consumer insights,

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cutting-edge Research & Development, differentiated product development capacity, brand-building capability, world-class manufacturing infrastructure, extensive rural linkages, efficient trade marketing and distribution network and dedicated human resources. ITC's ability to leverage internal synergies residing across its diverse businesses lends a unique source of competitive advantage to its products and services.

Within a relatively short span of time, ITC has established vital brands like Aashirvaad, Sunfeast, Dark Fantasy, Delishus, Bingo!, Yippee!, Candyman, mint-o, Kitchens of India in the Branded Foods space; Essenza Di Wills, Fiama Di Wills, Vivel, Vivel Cell Renew, Engage and Superia in the Personal Care products segment; Classmate and Paperkraft in Education & Stationery products; Wills Lifestyle and John Players in the Lifestyle Apparel business; Mangaldeep in Agarbattis and Aim in the Safety Matches segment. This growth has been rated by a Nielsen Report to be the fastest among the consumer goods companies operating in India.

Creating Enduring Value

Today, ITC is India's leading Fast Moving Consumer Goods company, the clear market leader in the Indian Paperboard and Packaging industry, a globally acknowledged pioneer in farmer empowerment through its wide-reaching Agri Business and runs the greenest luxury hotel chain in the world. ITC Infotech, a wholly-owned subsidiary, is one of India's fast-growing IT companies in the mid-tier segment. This portfolio of rapidly growing businesses considerably enhances ITC's capacity to generate growing value for the Indian economy.

ITC's Agri-Business is one of India's largest exporters of agricultural products. The ITC Group's contribution to foreign exchange earnings over the last ten years amounted to nearly US\$ 6.0 billion, of which agri exports constituted 57%. The Company's 'e-Choupal' initiative has enabled Indian agriculture significantly enhance its competitiveness by empowering Indian farmers through the power of the Internet. This transformational strategy has already

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become the subject matter of a case study at Harvard Business School apart from receiving widespread global acclaim.

As one of India's most valuable and respected corporations, ITC is widely perceived to be dedicatedly nation-oriented. Chairman Y C Deveshwar calls this source of inspiration "a commitment beyond the market". In his own words: "ITC believes that its aspiration to create enduring value for the nation provides the motive force to sustain growing shareholder value. ITC practices this philosophy by not only driving each of its businesses towards international competitiveness but by also consciously contributing to enhancing the competitiveness of the larger value chain of which it is a part." ITC group directly employs more than 31,000 people and the Company's Businesses and value-chains generate around 6 million sustainable livelihoods many of whom live at the margin in rural India.

Global Exemplar in Sustainability

Acknowledged as a global exemplar in sustainability, ITC is the only enterprise in the world, of comparable dimensions to be carbon-positive, water-positive, and solid waste recycling positive. A testimony to its commitment to a low carbon growth path - over 38 % of the total energy requirements of ITC is met from renewable sources. All ITC's premium luxury hotels are LEED (Leadership in Energy and Environmental Design) Platinum certified making it the "greenest luxury hotel chain" in the world. ITC's Paperboards and Paper business is an icon of environmental stewardship.

ITC's production facilities and hotels have won numerous national and international awards for quality, productivity, safety and environment management systems. ITC was the first company in India to voluntarily seek a corporate governance rating.

The Company continuously endeavours to enhance its wealth generating capabilities in a globalising environment to consistently reward more than 5,11,000 shareholders, fulfill the aspirations of its stakeholders and meet societal expectations.

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ITC Snapshots

- India's most Admired and Valuable company
 - Market Capitalisation: over US\$ 45 Billion
- A USD 8 Billion enterprise by Revenue
 - ~54% of Net Revenue from non-Cigarette segments
- Leading Fast Moving Consumer Goods (FMCG) marketer in India
 - Established several world-class brands in the last 10 years
- 10 year Value addition ~ Rs. 1.9 lakh crore (US\$ 39 billion) with ~75% accruing to the Exchequer
 - Among the top tax payers in the nation (Private sector)
 - Excise payments represent ~7% of India's total Excise collection
- Employs over 30,000 people directly; supports livelihoods of ~6 million people
- Sensex (CAGR 95-96 to 13-14): 11.1%

Table 1.1

	1995-96	2013-14	18-yr Cagr 95-96 to 13-14
Net Revenue	2,536	32,883	15.3%
PBDIT	584	13,562	19.1%
PBIT	536	12,662	19.2%
PBT	452	12,659	20.3%
PAT	261	8,785	21.6%
Capital Employed	1,886	27,626	16.1%
ROCE %	28.4	45.8	
Market Capitalisation	5,571	280708	24.3%
Total Shareholder Returns %			25.9

Rs. cr.; Market Cap and TSR based on FY-end prices

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- Consistent performance over 18 year, 10 year, 5 year and 3 year horizons
 - In terms of Revenue, Profits, TSR Vs. Sensex

Table 1.2

CAGR	95-96 to 13-14 18 years	03-04 to 13-14 18 years	08-09 to 13-14 18 years	10-11 to 13-14 18 years
NTO	15.30%	17.70%	16.10%	15.80%
PAT	21.60%	18.60%	21.90%	20.80%
TSR	25.90%	28.70%	33.70%	26.40%
Sensex	11.10%	14.90%	18.20%	4.80%

TSR and Sensex returns based on Mar-end of each FY

- ITC's ranking amongst all listed private sector cos.

PBT: No. 7

PAT: No. 8

Market Capitalisation: No. 2

Balrampur Chini Mills Limited (“BCML”, Target)

BCML was incorporated in 1975 under the Companies Act as a wholly-owned subsidiary company of Balrampur Sugar Company Limited (Name changed to Balrampur Commercial Enterprises Limited) (“BCEL”). By an indenture of conveyance dated 21 February 1976, BCEL transferred to BCML the land, building and other assets and the entire staff of its Balrampur Sugar Factory with effect from 1 July 1975. BCML ceased to be a subsidiary of BCEL with effect from 25th June, 1979 and its shares were listed on the Calcutta Stock Exchange (CSE) in 1979. The Balrampur Mill started with a crushing capacity of 800 TCD (Metric Tonnes crushed per day) in 1975 and has since been expanded to its present capacity of 12,000 TCD.

In 1990, BCML acquired a controlling stake in Babhnan Sugar Mill Ltd, which at that time, had a crushing capacity of 1,000 TCD. BCML undertook expansion and modernization programmes at the sugar mill in Babhnan (the “Babhnan Unit”) which resulted in an increase in crushing capacity from 2,500 TCD in the year 1992-1993 to the current crushing capacity of 10,000 TCD. Babhnan Sugar Mills Ltd. was merged with BCML with effect from 1 April 1994.

In 1995, BCML set up a distillery in Balrampur with a capacity of 60 KL per day which has now been raised to 160 KL per day for the production of distillery products using molasses, which is a by-product of the sugar production process. In February 2004, BCML commenced operation at a new distillery at Babhnan unit with a capacity of 60 KL per day.

In April 1998, BCML acquired a controlling stake in Tulsipur Sugar Co. Ltd. (“TSC”), a profit-making sugar company located near Balrampur in Eastern Uttar Pradesh with an installed capacity of 2,500 TCD. TSC was merged with BCML with effect from 1 April 1999. The crushing capacity of Tulsipur Sugar was subsequently expanded to 7000 TCD.

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In March 2003, BCML commissioned a bagasse based co-generation power plant with a capacity of 19.55 MW at Balrampur and the said capacity has been increased to 24.55 MW. Further, the installed capacity of organic manure at Balrampur Unit is 30,000 MT and at Babhnan Unit is 18,000 MT.

During the period of 2003-2004 BCML set up an integrated sugar complex at Haidergarh (the "Haidergarh Unit") consisting of a plant with a crushing capacity of 4,000 TCD and a bagasse based co-generation power plant with a capacity of 20.25 MW. The crushing capacity of the Haidergarh sugar division has since been increased to 5000 TCD. The company also set up the cogen plant of Babhnan Unit with a capacity of 3MW.

A Greenfield sugar project having a capacity of 7000 TCD was set up at Akbarpur, Distt. Ambedkarnagar, U.P. which was commissioned in November 2005. A bagasse based co-generation power plant with a capacity of 18 MW was also installed at Akbarpur. The crushing capacity was subsequently expanded to 7,500 TCD.

A new Greenfield integrated sugar complex has been set up at Mankapur, Dist. Gonda, Eastern U.P. with a capacity of 8000 TCD sugar plant, 34 MW co-generation power plant, 100 KLPD distillery and 20,000 MT Organic Manure facility. The plant has begun operations in November 2006. Presently cogen capacity of power plant stands of 37MW.

BCML acquired an integrated sugar unit having a sugar plant of 7500 TCD and co-generation power plant of 12MW situated at Rauzagaon, District Barabanki, U.P. from Dhampur Sugar Mills Ltd. in March 2006. The crushing capacity has been subsequently expanded to 8000 TCD and cogen facility to 25.75 MW through modernization scheme.

A new Greenfield integrated sugar complex has been set up at Kumbhi, Dist. Lakhimpur, Kheri, U.P. with the capacity of 8,000 TCD sugar plant and 20 MW co-generation power plant. The plant began operations in April 2007. Further,

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the cogen facility is being expanded to 32.70 MW which is expected to be operational by April 2014.

A Greenfield integrated sugar complex has been set up at Gularia, Dist. Lakhimpur, Kheri, U.P. having sugar cane crushing of 8,000 TCD and co-generation power plant capacity of 31.3 MW. The plant began operations in November 2007.

BCML has refinery capacity of 500 TCD at its Haidergarh plant and of 700 TCD of the Rauzagaon plant.

BCML has one subsidiary, Indo Gulf Industries Ltd (IGIL). BCML has acquired a 53.96% stake in the equity capital of Indo Gulf Industries Ltd. BCML has taken over the management of IGIL after receiving of the approval from SEBI and completion of the open offer. IGIL has a sugar unit having crushing capacity of 3000 TCD at Maizapur in Eastern U.P. The sugar division of IGIL situated at Maizapur, Gonda UP has been demerged from IGIL and merged with BCML pursuant to order dated 24.06.2010 of the BIFR under a rehabilitation scheme of IGIL.

Khalilabad Sugar Mills Private Ltd, having a sugar unit at Khalilabad, Dist.- SantKabir Nagar, U.P. with crushing capacity of 2500 TCD has merged with Balrampur Chini Mills Ltd. pursuant to Hon'ble BIFR Order dated 14.08.2013.

1.3 Objective of the Project

Investors in a company that is aiming to take over another one must determine whether the purchase will be beneficial to them. In order to do so, they must ask themselves how much the company being acquired is really worth. Naturally, both sides of an M&A deal will have different ideas about the worth of a target company: its seller will tend to value the company at as high of a price as possible, while the buyer will try to get the lowest price that he can.

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There are, however, many legitimate ways to value companies. In my research I would determine how effective and helpful are these valuations in actually determining the price at which the company is being acquired or merged.

The project work is desired to be carried out to understand carefully the various terminologies related with Mergers & Acquisition, giving more emphasis on understanding in details the various models which are used for Valuing or Pricing the companies before any M&A deal. Research would also be carried out to find out the feasibility of acquiring of BCML by ITC.

2. LITERATURE REVIEW

A) Mergers, Acquisitions and Restructurings

By: i) Patrick A. Gaughan (4th Edition), ii) Chandrashekhar Krishnamurti Vishwanath S.R.

Both the books tells about the Merger and Acquisitions, their different types, reasons for M&A, Valuation, Models of valuation, Various strategies of M&A,

B) Stock or Cash?: The Trade-Offs for Buyers and Sellers in Mergers and Acquisitions

By: Alfred Rappaport and Mark L. Sirower, Harvard Business Review (From the November–December 1999 Issue)

The review gives an insight as to whether to go for stock or cash under various situations for executing the M&A.

C) Essentials of Managerial Finance

By: Weston, J.F. and Brigham, E.F.

The Author talks about various synergies which a M&A offers, takeover bids and how to go about a merger.

D) Abnormal returns to rivals of acquisition targets

By: Song M. and Walking R. (2000)

The book provides the information regarding the provisions for making announcement i.e. mandatory bid vide regulations 10 and 11.

E) Strategic Analysis for More Profitable Acquisitions

By: Rappaport A, Harvard Business Review, July, August 1979, pp. 99-110.

The review talks about talks about the three types of mergers, systematic takeover bids.

F) Market Response to European Regulation of Business Combinations

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By: Aktas N, E. de Bodt and R. Roll, (2003),

The book provides information commonly used defence mechanism to ward off a takeover threat.

3. RESEARCH METHODOLOGY

Project work has been done by referring the primary as well secondary data from the websites of the organizations under study and by referring the available journals in the concerned field under the guidance of my respected Guide.

4. THEORETICAL CONCEPTS

4.1 Meaning of Mergers & Acquisitions

Mergers and acquisitions (M&A) and corporate restructuring are a big part of the corporate finance world. Every day, Wall Street investment bankers arrange M&A transactions, which bring separate companies together to form larger ones. When they're not creating big companies from smaller ones, corporate finance deals do the reverse and break up companies through spin-offs, carve-outs or tracking stocks. Not surprisingly, these actions often make the news. Deals can be worth hundreds of millions, or even billions, of dollars. They can dictate the fortunes of the companies involved for years to come. For a CEO, leading an M&A can represent the highlight of a whole career. And it is no wonder we hear about so many of these transactions; they happen all the time. Next time you flip open the newspaper's business section, odds are good that at least one headline will announce some kind of M&A transaction. Sure, M&A deals grab headlines, but what does this all mean to investors? To answer this question, this part of project discusses the forces that drive companies to buy or merge with others, or to split-off or sell parts of their own businesses. Once we know the different ways in which these deals are executed, we'll have a better idea of whether we should cheer or weep when a company we own buys another company - or is bought by one.

Defining M&A

The Main Idea

One plus one makes three: this equation is the special alchemy of a merger or an acquisition. The key principle behind buying a company is to create shareholder value over and above that of the sum of the two companies.

Mergers and acquisitions refers to the aspect of corporate strategy, corporate finance and management dealing with the buying, selling and combining of different companies that can aid, finance, or help a growing company in a given industry grow rapidly without having to create another business entity. Two companies together are more valuable than two separate companies - at

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least, that's the reasoning behind M&A. This rationale is particularly alluring to companies when times are tough. Strong companies will act to buy other companies to create a more competitive, cost-efficient company. The companies will come together hoping to gain a greater market share or to achieve greater efficiency. Because of these potential benefits, target companies will often agree to be purchased when they know they cannot survive alone.

In business or economics a merger is a combination of two companies into one larger company. Such actions are commonly voluntary and involve stock swap or cash payment to the target. Stock swap is often used as it allows the shareholders of the two companies to share the risk involved in the deal. A merger can resemble a takeover but result in a new company name (often combining the names of the original companies) and in new branding; in some cases, terming the combination a "merger" rather than an acquisition is done purely for political or marketing reasons.

The prime objective of a firm is to grow profitably. The growth can be achieved either through the process of introducing or developing new products or by expanding or enlarging the capacity of existing products. External growth can be achieved by acquisition of existing business firm. Mergers and Acquisitions (M&As) are quite important forms of external growth.

The last decade of 20th century has seen substantial increase in both number and volume of M&A activity. In fact, consolidation through M&As has become a major trend across the globe. This wave was driven by globalization, technological changes, and market deregulation and liberalization. Almost all industries are going through reorganization and consolidation. M&A activity has been predominant in sectors like steel, aluminum, cement, auto, banking and finance, computer software, pharmaceuticals, consumer durables, food products, agro-chemicals and textiles. Generally, M&As aim at achieving greater efficiency, diversification and market power. The synergistic gains by M&A activity may accrue from more efficient management, economies of scale and scope, improved production techniques, combination of

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complementary resources, redeployment of assets to more profitable uses, the exploitation of market power or any number of value enhancing mechanisms that fall under the general rubric of corporate synergy. It is argued that M&As are indispensable strategic tools for expanding product portfolios, entering new markets, acquiring new technologies and building new generation organization with power and resources to compete on a global basis. M&As may also be undertaken by managers of firm driven by non-value maximizing motive of empire building or to enhance their prestige by managing a larger post acquisition entity. Though M&As basically aim at enhancing the shareholders value or wealth, the results of several empirical studies reveal that on average, M&As consistently benefit the target company shareholders but not the acquirer company shareholders. A majority of corporate mergers fail. Failure occurs on average, in every sense, acquiring firm stock prices likely to decrease when mergers are announced; many acquired companies sold off; and profitability of the acquired company is lower after the merger relative to comparable non-merged firms. Consulting firms have also estimated that from one half to two-thirds of M&As do not come up to the expectations of those transacting them, and many resulted in divestitures.

The five most common ways to value a business are asset valuation, historical earnings valuation, future maintainable earnings valuation, Earnings Before Interest Taxes Depreciation and Amortization (EBITDA) valuation and Shareholder's Discretionary Cash Flow (SDCF) valuation.

Professionals who value businesses generally do not use just one of these methods but a combination of some of them, as well as possibly others that are not mentioned above, in order to obtain a more accurate value. These values are determined for the most part by looking at a company's balance sheet and/or income statement and withdrawing the appropriate information.

Accurate business valuation is one of the most important aspects of M&A as valuations like these will have a major impact on the price that a business will be sold for. Most often this information is expressed in a Letter of Opinion of Value (LOV) when the business is being valued for interest's sake. There are other, more detailed ways of expressing the value of a business. These

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reports generally get more detailed and expensive as the size of a company increases. However, this is not always the case as there are many complicated industries which require more attention to detail, regardless of size.

Distinction between Mergers and Acquisitions

Weston, Chung & Hoag, (1999) proposes although they are often uttered in the same breath and used as though they were synonymous, the terms "merger" and "acquisition" mean slightly different things. When a company takes over another one and clearly becomes the new owner, the purchase is called an acquisition. From a legal point of view, the target company ceases to exist and the buyer "swallows" the business, and stock of the buyer continues to be traded.

In the pure sense of the term, a merger happens when two firms, often about the same size, agree to go forward as a new single company rather than remain separately owned and operated. This kind of action is more precisely referred to as a "merger of equals." Both companies' stocks are surrendered, and new company stock is issued in its place (Weston, Chung & Hoag, 1999). For example, both Daimler-Benz and Chrysler ceased to exist when the two firms merged, and a new company, Daimler-Chrysler, was created.

In practice, however, actual mergers of equals don't happen very often. Often, one company will buy another and, as part of the deal's terms, simply allow the acquired firm to proclaim that the action is a merger of equals, even if it's technically an acquisition. Being bought out often carries negative connotations. By using the term "merger," dealmakers and top managers try to make the takeover more palatable.

A purchase deal will also be called a merger when both CEOs agree that joining together in business is in the best interests of both their companies. But when the deal is unfriendly--that is, when the target company does not want to be purchased--it is always regarded as an acquisition. So, whether a purchase is considered a merger or an acquisition really depends on whether the purchase is friendly or hostile and how it is announced. In other words, the real difference lies in how the purchase is communicated to and received by

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the target company's board of directors, employees and shareholders. There are a number of terms used that frequently get confused partly because of their similarity in meaning:

Merger

A full joining together of two previously separate corporations. A true merger in the legal sense occurs when both businesses dissolve and fold their assets and liabilities into a newly created third entity. This entails the creation of a new corporation.

Acquisition

Taking possession of another business. Also called a takeover or buyout. It could also be said to be a hostile way of merger. An acquisition may be affected by: Agreement with the persons holding majority interest in the company management like members of the board or major shareholders commanding majority of voting power; Purchase of share in the open market; To make takeover offer to the general body of shareholders; Purchase of new shares by private treaty

Joint Venture

Two or more businesses joining together under a contractual agreement to conduct a specific business enterprise with both parties sharing profits and losses. The venture is for one specific project only, rather than for a continuing business relationship as in a strategic alliance.

Strategic Alliance

A partnership with another business in which you combine efforts in a business effort involving anything from getting a better price for goods by buying in bulk together to seeking business together with each of you providing part of the product. The basic idea behind alliances is to minimize risk while maximizing your leverage.

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Partnership

A business in which two or more individuals that carry on a continuing business for profit as co-owners. Legally, a partnership is regarded as a group of individuals rather than as a single entity, although each of the partners files their share of the profits on their individual tax returns.

Synergy

Synergy is the magic force that allows for enhanced cost efficiencies of the new business. Synergy takes the form of revenue enhancement and cost savings. By *merging, the companies hope to benefit from* the following (Weston and Brigham, 1997):

1. *Staff reductions*

As every employee knows, mergers tend to mean job losses. Consider all the money saved from reducing the number of staff members from accounting, marketing and other departments. Job cuts will also include the former CEO, who typically leaves with a compensation package.

2. *Economies of scale*

Yes, size matters. Whether it's purchasing stationery or a new corporate IT system, a bigger company placing the orders can save more on costs. Mergers also translate into improved purchasing power to buy equipment or office supplies--when placing larger orders, companies have a greater ability to negotiate price with their suppliers.

3. *Acquiring new technology*

To stay competitive, companies need to stay on top of technological developments and their business applications. By buying a smaller company with unique technologies, a large company can keep or develop a competitive edge.

4. *Improved market reach and industry visibility*

Companies buy companies to reach new markets and grow revenues and earnings. A merge may expand two companies' marketing and distribution, giving them new sales opportunities. A merger can also improve a company's standing in the investment community: bigger firms often have an easier time raising capital than smaller ones.

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That said, achieving synergy is easier said than done--it is not automatically realized once two companies merge. Sure, there ought to be economies of scale when two businesses are combined, but sometimes it works in reverse. In many cases, one and one add up to less than two.

Sadly, synergy opportunities may exist only in the minds of the corporate leaders and the dealmakers. Where there is no value to be created, the CEO and investment bankers--who have much to gain from a successful M&A deal--will try to build up the image of enhanced value. The market, however, eventually sees through this and penalizes the company by assigning it a discounted share price.

Merger or takeover or acquisition can be achieved through different means such as purchase of assets or shares of a target company or by means of scheme of arrangements following the procedure laid down or by means of scheme of arrangements following the procedure laid down under companies act of 1956. The corporate world exists within the competition and by the competition which, gives rise, on the one hand to threats and crossfire trade rivalry, collision, antagonism and impugnation resulting into sickness and closure of corporate enterprises and on the other hand business enterprises flourish and expand with cooperation and concert, collusion and combination, federation and confederation in "esprit de corpe". Hospitality and friendliness is the nature of the man who manages the corporate enterprise (Weston, Chung & Hoag, 1999).

In India the mergers and takeovers are done in the jurisdiction of the SEBI. SEBI controls the mergers and takeover guidelines but it does not apply to the transactions towards friendly takeovers. Here an example of acquisition of SESA GOA by MITSUI can be quoted.

Here the Japanese trading giants MITSUI has acquired SESA GOA indirectly because Finsider International of UK, a subsidiary of MITSUI holds 51% of stake in SESA GOA, which has transferred its stake to MITSUI. Afterwards SESA demanded public offerings from MITSUI but MITSUI contented that the SEBI Act and the takeover code only apply to the companies listed in the company's act 1956 and listed in the Indian stock exchanges. And since

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insider international is a UK based company listed in UK stock Exchanges, it cannot be applied to this case.

Similarly in the Europe the European union competition law controls the procedure and trades, and in states the US antitrust law takes the responsibility to mergers and acquisitions.

TYPES OF TAKEOVERS AND ACQUISITIONS

There are two types of takeover bids: Friendly mergers & Hostile takeovers.

Friendly Mergers

Mergers and takeovers could be done through negotiations, that is, with willingness and consent of the parties, the acquirer and the target companies. These mergers are negotiated mergers and if the parties do not reach to an agreement during the negotiation, the proposal of merger stand terminated and dropped out.

Types of Mergers

Mergers

A merger is a transaction that results in the transfer of ownership and control of a corporation. A full joining together of two previously separate corporations. A true merger in the legal sense occurs when both businesses dissolve and fold their assets and liabilities into a newly created third entity. This entails the creation of a new corporation (Rappaport, 1979).

Economists distinguish between three types of mergers: Horizontal, Vertical & Conglomerate

1. Horizontal Mergers

A horizontal merger results in the consolidation of firms that are direct rivals—that is, sell substitutable products within overlapping geographic markets.

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Examples: Boeing-McDonnell Douglas; Staples-Office Depot(unconsummated); Chase Manhattan-Chemical Bank; Pabst-Blatz; LTV-Republic Steel; Konishiroku Photo-Minolta.

2. Vertical Mergers

The merger of firms that have actual or potential buyer-seller relationships.

Examples: -Time Warner-TBS; Disney-ABC Capitol Cities; Cleveland Cliffs Iron-Detroit Steel; Brown Shoe-Kinney, Ford-Bendix.

3. Conglomerate Mergers

Consolidated firms may sell related products, share marketing and distribution channels and perhaps production processes; or they may be wholly unrelated.

Product Extension conglomerate mergers involve firms that sell non-competing products use related marketing channels of production processes.

Examples: AOL-Time Warner; Phillip Morris-Kraft; Citicorp-Travelers Insurance; PepsiCo-Pizza Hut. Market Extension conglomerate mergers join together firms that sell competing products in separate geographic markets. Examples: Scripps Howard Publishing—Knoxville News Sentinel; Time Warner-TCI. A Pure Conglomerate merger unites firms that have no obvious relationship of any kind. Examples: Bank Corp of America-Hughes Electronics; R.J. Reynolds-Burmah Oil & Gas.

Hostile Takeovers

An acquirer company may not offer Target Company the proposal to acquire its undertaking but silently and unilaterally may pursue efforts to gain controlling interest in it against the wishes of the management. There are various ways in which a acquirer company may pursue the matter to acquire controlling interest in a target company. Such acts of acquirer are known as “raids “or “takeover bids “(Rappaport, 1979). A takeover is said to be hostile when it is in the form of a raid.

1. Secret accumulation

Purchase sizeable stakes through open market operations, using the services of arbitrage and finance firms. Don't lodge the shares immediately to preserve the secrecy around the buyer's identity. Gather up to 10% of the

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stock before showing your hand so that the open offer for additional shares is made from a position of strength. Make private bids to small, but corporate, shareholders alongside the open offer to ensure acceptance, and secure their support. Aware of the stock being amassed, but unable to prove officially that a predator is at work, the target company will open itself to negotiations. Then, at the negotiating table, leverage for the best possible deal (Weston, Chung & Hoag, 1999).

2. Two tier bid

Stagger the bid over two stages; start with cash offers for over 50% of the stock held by each shareholder of the target company. Offer to buy the rest at far lower price. Shareholders in such a situation would prefer to sell. In case the response is not suitable, adding some extra benefits, which would increase the gains for the sellers, could make a revised offer.

3. Conditional bids

Accompany the open offer for shares with an offer to the target company to arrive at a negotiated settlement, perhaps at a higher price per share than that made in the open offer. The option of exit through a conditional bid as well as leeway for making a revised bid at a different price would ensure that you are not locked into your original offer if your conditions are not met and threaten the target.

4. Asset buyouts

Instead of bidding for the target company make an offer to acquire its most valuable assets i.e. either the plant or the machinery, or the distribution network or the brand, which will fulfill the acquirers strategic objective. The benefits include simple valuation, easy availability of finance and quick completion of the transaction.

5. Dawn Raid

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Where brokers swoop down on the stock exchanges at the time of their opening and buy up all available shares swiftly, before the prey reacts.

6. Bear Hug

This involves sending the target company's management a tender offer for its shareholders at an attractive price and warning them to act in the interest of the shareholders.

7. Saturday night special

This is a tender offer made over the weekend, giving management 7-10 days to respond. This subsequently came to be known as 'Godfather offers' i.e. an offer that cannot be refused.

The forces of competition and product failure provide strength and weakness of the rivals in the industry, trade or commerce. The battle to win competitive field settles those strengthful ones walk courageously in foul and unfair weathers "And stand to face the wind of challenges". This happens in hostile acquisitions. Indian industry is full of such examples and adventures.

Techniques of Bids

A. Takeover Bid

A takeover bid gives impression of the intention reflected in the action of acquiring shares of a company gain control of its affairs. A bid has been distinguished as: (Weston, Chung & Hoag, 1999)

Mandatory Bid

SEBI Takeover Regulation Act, 1997 contains provisions for making announcement i.e. mandatory bid vide regulations 10 and 11 in the following cases (Song and Walking, 2000):

- (i) For acquisition of 15% or more of the shares or voting rights.
- (ii) For acquiring additional shares to the extent of 10% in any period of 12 months if such person already holds not less

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than 15% but not more than 75% of the shares (voting rights) in a company.

- (iii) For acquiring shares along with persons acting in concert to exercise more than 75% of voting rights in a company.

Partial Bid- Partial bid is understood when a bid is made for acquiring part of the shares of a class of capital where the offeror intends to obtain effective control of the offeree through the voting power. Such bids are made for equity shares carrying voting rights.

Partial bid

It is also understood when the offeror bid for the whole of the issued shares of one class of capital in a company other than equity share capital carrying voting rights.

Rule 12 of SEBI Takeover Regulation Act 1997, qualifies partial bid in the form of acquiring control over the target company irrespective of whether or not there has been any acquisition of shares or voting rights in a company. For such acquisition, it is essential to make public announcement in accordance with regulations.

Competitive Bid

Competitive bid can be made any person within 21 days of public announcement of the offer made by the acquirer. Such bid shall be made in accordance with regulation 25 of SEBI Takeover Regulation Act, 1997. Such competitive bid shall be for the equal number of shares or more for which offer was made. No competitive bid can be made for the acquisition of financially weak company where lead financial institution has accepted the bid of the acquirer on public announcement in terms of regulation 35 of SEBI Takeover Regulation Act, 1997.

B. Tender Offer

The acquirer pursues the takeover without the consent of the acquiree company by making a tender offer directly to the shareholders of the target company to sell (tender) their shares. This offer is made for cash. This offer is

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open for a particular period; say a few weeks, within which the shares must be traded.

Example -Takeover by TATA Tea of Consolidated Coffee Ltd. (CCL) where TATA Tea was tenderly offered 50% of the CCL's shares by the shareholders at the offered price, which was, much more than the investment price. After enforcement of the SEBI Takeover Regulation Act, 1997, i.e. w.e.f. 20/02/1997, public announcement is necessary as mandatory bid for tender offer to acquire the shares or control in the target company if such tender offer is more than limits of shareholdings outlined in regulations 10, 11, and 12 of SEBI Takeover Regulation Act, 1997.

Procedure for organizing Take Over Bids

The procedure has been streamlined in the SEBI Takeover Regulation Act, 1997 which, of course, do not lay down the procedure but prescribe a restrictive drill to safeguard the interest of the investors and shareholders. One company offering to acquire shares of another company to gain sufficient shares and voting control of the company organizes takeover bids in a systematic way, are the takeover bids (Rappaport, 1979). The following steps generally take place in a takeover bid (Weston and Brigham, 1997).

1. Collection of relevant information and its analysis.
2. Examine shareholders profile.
3. Investigation of titles and searches into indebt-ness.
4. Examining articles of association.
5. Representation on board.
6. Press announcement.
7. Approval under Foreign Exchange Management Act, 1999.
8. Recommendations to shareholders.
9. Improvement of conditions by the offeror.
10. Information about acceptance.
11. Dispatch of consideration for the shares.

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Defenses against the Takeover Bids

Takeover defences include all actions by managers to resist having their firms acquired. Resistance also includes actions that occur before a takeover offer is made which make the firm more difficult to acquire. The commonly used defence mechanism to ward off a takeover threat are listed below (Aktas, 2003):

Crown Jewels

Refers to a very profitable or highly desirable division owned by the target firm that is especially sought after by the acquiring firm being sold off, thus making the bid unattractive for the predator.

Blank Cheque

Authorising issuance of new class of shares, usually preferred, at the discretion of the Board of Directors or even top management. It's most common purpose is to give friendly shareholders the necessary voting rights to help vote down a hostile takeover attempt.

Shark repellents

Amending the corporate charter or by laws to make a takeover much more complex and costly, thereby discouraging it, for example, the amendment might require that more than a majority - a super-majority to approve a merger.

Poison pill

Deter the raider by suddenly making an acquisition, or taking a high -interest loan, that makes the target a liability rather than an asset.

Scorched earth policy

It is an extreme form of poison pill strategy and could threaten the very survivability of the target. For example the company may take huge loans which become due as soon as the company is taken over.

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Pac-man strategy

Here, each company tries to gobble up the other first, creating a maze of inter- company holdings.

White Knight

The white knight is another company which usually acts at the request of the target , coming to the rescue of a target firm threatened by a hostile takeover bid and most commonly succeeds by acquiring the target itself .

Dual class capitalization

To issue shares with variable voting rights to secure control .By ensuring that the shares traded in the market are those with lower voting rights, the extent of control that the predator can exercise can be effectively curtailed.

Restructuring defences

Identify that part of your company that is most attractive to the predator, and dispose it off - albeit in a way that allows your company to have access to it .For instance if the raider is eyeing your brands, transfer their ownership to a fully owned associate company, and work out a licensing arrangement, or spin off the lucrative division or operations - such as manufacturing facilities - into a separate company, using a leasing arrangement.

Employee stock Option

Faced with the possibility of takeover through a hostile bid, issue sizeable stock options, under the facility to be granted by the forthcoming Companies act, to loyal employees, securing their commitment to back the current management. Offer them the option to convert their options into shares immediately, which will make it more difficult for the acquirer, as the process will effectively decrease his percentage holdings (Weston, Chung & Hoag, 1999).

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How to go about a merger?

Weston and Brigham, (1997) focuses on what steps can the management of a company take to analyse a prospective acquisition with perspective ness and sound judgment, probing behind the seemingly attractive facade, which is often created by a deft corporate make-up artist?

- How can management keep from merging for the wrong reasons?
- And how can it foresee whether this company or that will mesh harmoniously with it's own growth pattern?

There is no simple answer. Each merger possibility is unique and should be considered on it's own merits. But there are certain key considerations that apply to virtually every merger. They may not guarantee success. But taking full cognizance of them will help immeasurably. The ten factors listed below take into consideration both the hits and misses. The first four factors are of critical nature and apply to all mergers .If any one of them is violated; the chances of a successful wedding are virtually nil. Hence these have been named must factors.

4.2 Pre-merger Financial Analysis

In order to know how management can estimate how much value a prospective acquisition will, in fact create, a comprehensive financial analysis need to done. The analysis provides management and the board of the acquiring company with information both to make decision on the candidate and to formulate an effective negotiating strategy for the acquisition.

Steps in the Analysis

The process analysing acquisitions fall broadly into three stages. Theses are planning, search & screen and financial evaluation.

1. Planning

The acquisition process begins with a review of corporate objectives and product market strategies, business units. The acquiring company should define its potential directions for corporate growth and diversification in terms of political, and technological environment. This analysis produces a set of

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acquisition objectives and criteria. Specified criteria often include statements about industry parameters, such as projected market growth rate, degree of regulation, ease of entry, and capital versus labour intensity. Company criteria for quality of management, share of market, profitability, size and capital structure also commonly appear in acquisition criteria lists.

2. *Search and Screen*

The search and screen process is a systematic approach to compiling a list of good acquisition prospects. The search focuses on how and where to look for candidate. The screening process selects a few of the best candidates from literally thousands of possibilities according to the objectives and criteria developed in the planning phase.

3. *Financial Evaluation*

The final and most important stage is the financial evaluation process. This stage is the focus of this section. A good analysis should enable management to answer such questions as:

- What is the maximum price that should be paid for the target company?
- What are the principal areas of risk?
- What are the earnings, cash flow, and balance sheet implications of the acquisition?
- What is the best way of financing of acquisition?

Corporate Self-Evaluation

The financial evaluation process involves both a self-evaluation by the acquiring company and the evaluation of the candidate for acquisition. While it is possible to conduct an evaluation of the target company without an in-depth self-evaluation first, in general, this is the most advantageous approach. The scope and detail of corporate self-evaluation will necessarily vary according to the needs of each company.

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Two fundamental questions posted by a self-evaluation are : (1) How much is my company worth ? and (2) How would its value be affected by each of several scenarios? The first question involves generating a “most likely” estimate of the company’s value based on management’s detailed assessment of its objectives, strategies, and plans. The second question calls for an assessment of value based on the range of plausible scenarios that enable management to test the joint effect of hypothesized combinations of product-market strategies and environmental forces. Corporate self-evaluation viewed as an economic assessment of the value created for shareholders by various strategic planning options promises potential benefits for all companies. In the context of the acquisition market, self-evaluation takes on special significance.

Exchange of Shares Analysis

Acquiring companies commonly value the purchase price for an acquisition at the market value of the shares exchanged. This practice is not economically sound, however, and could be misleading and costly to the acquiring company. A well-conceived analysis for an exchange-of-shares acquisition requires sound valuations of both buying and selling companies. If the acquirer’s management believes the market is undervaluing its shares, then valuing the purchase price at market might well induce the company to overpay for the acquisition or to earn less than the minimum acceptable rate of return. Conversely, if management believes the market is over valuing its shares, then valuing the purchase price at market obscures the opportunity of offering the seller” shareholders additional shares while still achieving the minimum acceptable return.

4.3 Valuation of Acquisition

Basis of Valuation

The financial analysis required to be made in the case of merger or takeover is comprised of valuation of assets and stocks of the acquiree or target

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company in which the acquirer contemplates to invest large amount of capital in cash or other liquid assets.

There are several basis of valuation as discussed below:

1. *Assets Value*

In the valuation, based on assets value, the business is taken as going concern. Open market value of the freehold and building is assessed by values. Similarly, unexpired period of leasehold property has open market value i.e. the value which could be realised through open sale in the market. This value is also assessed. The tangible assets like inventories and intangible assets like “good will” are assessed and valued as per existing business practices. Goodwill represents the company’s excess earning power capitalised on the basis of certain number of years purchases. This resultant figure is added to the value of tangible assets which gives value of the company as a going concern.

2. *Capitalised Earnings*

For valuation based on earnings, the popular method in use is the predetermined rate of return expected by an investor in routine course on the investments. This is simple rate of return on capital employed.

3. *Market Value*

Market value is the value quoted for listed company’s share at the stock exchanges. Market value does not exactly depict the real worth of the company because it takes into consideration various intangible factors which cannot be measured like abilities of management, prospects of the industry in which the company operates, and strategic values possessed by the company on account of patents, technical collaboration, locational benefits, institutional finance etc. To arrive at a fair value it may be ensured that temporary factors causing volatility or fluctuations are eliminated by averaging the quotations over a period of time. Market value alone is not considered as a good measure of valuation unless there is a broad market for the company’s securities. But it is relied upon along with the valuation arrived at on the basis of net assets or earnings. In hostile takeovers, the acquirer pays only market value.

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4. *Investment Value*

Investment value signifies the cost incurred to establish an enterprise. These costs include the original investment plus the interest accrued thereon. This determines the sale price of the target company which the acquirer may be asked to pay for the negotiated merger where it could be taken into consideration for valuation.

5. *Book Value*

Book value represents the total worth of the assets after depreciation but with revaluation. It may represent a fair and equitable basis of value in determination of purchase price of the target company. For negotiated mergers, book value could be taken.

Models of Valuation

Valuation of a company can be done through one or more of the different approaches viz.

- (1) Valuation based on Earnings
- (2) Valuation based on assets
- (3) Valuation based on Discounted Cash Flow technique

1. *Valuation based on Earnings*

Valuation based on earnings is a popular method for valuation, the pre-determined rate of return expected by investor to investment is used which is equal to simple rate of return on capital employed. From the earnings, last declared by the company, the items such as tax, preference dividends, are deducted and net earnings are taken for calculation. But this valuation invites criticism, for, it is based on past performance. Whereas, for fair valuation reliable forecast of future earnings is necessary. Another view point is that instead of using the accounting rate of return for valuation, the price earning (P/E) ratio could be used. A listed company has its own P/E ratio. All these aspects are discussed in the following paragraphs.

Earnings Analysis : Traditional (Short-Term) View Point

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Earnings per share (EPS) is the earning attributable to shareholders which is reflected in the market price of the shares. This (P/E) relationship is known as Price Earning Ratio.

P/E Ratio is calculated by dividing current price of shares (P) by EPS or P/EPS. A higher P/E ratio indicates that the company's earnings in future will grow where as a low P/E ratio indicates stagnancy in the earnings in future. A reciprocal of this ratio (i.e. EPS/P) depicts yield. Share price (P) can be determined as $P = \text{EPS} \times \text{P/E Ratio}$

$$\text{or } P = \frac{\text{EPS}}{\text{Earning yield}}$$

While planning for takeover, P/E ratio plays a significant role in decision making for the acquirer inter-ail, in the following ways :

- (i) Target company's P/E ratio is exit ratio and higher the ratio means the acquirer has to pay more. If the exit ratio of target company is less than that of the acquirer then shareholders of both companies benefit. On the other hand, if P/E ratio for target company is higher than acquirer merger will lead to dilution in EPS and adversely affect share price.
- (ii) In share-for-share exchange, a company can increase its EPS by acquiring another company with a P/E ratio lower than its own provided that the earnings of the target company are capitalised at a rate above its existing capitalization rate. The above principles are exemplified as under :

Limitations of Short-term Valuation of Earning Analysis

a short-term view involves the assumption that target company's earning are capitalised in the market at the higher P/E Ratio. If this assumption is relaxed and weighted average of companies are taken, then the impact on the shareholders gain or less could be assessed and it may be found that that the shareholders of either company have not gained even with the use of weighted average of capitalization ratio based on earnings.

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The results obtained, in short-term, are based on current earnings which are not much reliable. The growth of the company is reflected in future earnings and without taking into consideration the future earnings, valuation is misleading. Therefore, earning forecast for the future is prerequisite for fair valuation. Besides, there are other factors which affect the earning based valuation and deserve financial analysts attention.

Factors Affecting P/E ratio: The following factors affect the earning based valuation.

- 1) Risk- Higher risk results in higher earnings yield and gives a low P/E ratio and vice versa.
- 2) Abnormal growth- Higher abnormal growth gives a low earning yield and higher P/E ratio i.e. it depicts elements of low risk.
- 3) Random fluctuations in earnings affect the P/E ratio i.e. fall in earnings leads to fall in share prices causing P/E ratio move up and a rise in earnings causes a rise in share prices and fall in P/E ratio. To avoid the impact of fluctuations maintainable earnings are used in place of current earnings.

2. Valuation based Assets

Valuation on assets basis of a unlisted d unquoted company will have to be done on different footing as compared to listed and quoted companies. The real value of the assets may or may not reflect on the market prices of the shares. But in unquoted company, no indication of all these things, is available excepting the profitability of the company as reflected in accounts. However the following criteria could be applied in assets basis valuation of unquoted company:

(A) Fair Value

Valuation based on fair value might be appropriate when market value of a company is independent of its profitability. Fair value represents shareholders proportionate ownership of the total value of the whole company.

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(B) Open Market Value

Open market value refers to a price of the assets of the company which could be fetched or realised by negotiating sale provided there is a willing seller, property is freely exposed to market, sale could be materialised within a reasonable period and throughout this period, orders will remain static and without interruption from any extraordinary purchaser giving higher bid. The assets of the company which are not subject to regular sale could be assessed on depreciated or replacement cost. Each asset of the company normally valued on the basis of liquidation as resale item rather than an a going-concern basis. This takes care of undervalued assets to be properly assessed assessed. Besides, intangible assets like goodwill will also be assessed as per normal practices of the business firms and recognised conventions.

3. Valuation based on Discount Cash Flow (DCF) Technique

As many as half of the major acquisition-minded companies are relying extensively on the discounted cash flow (DCF) technique to analysis acquisitions and that number has increased in the early 1980s. While mergers and acquisitions involve a considerably more complex set of managerial problems than the purchase of an ordinary asset, such as a machine or a plant, the economic substance of these transactions is the same. In each case, there is a current outlay made in anticipation of a stream of future cash flow.

Thus, the DCF criterion applies not only to internal growth investments, such as additions to existing capacity, but equally to external growth investments, such as acquisitions. An essential feature of the DCF technique is that it explicitly takes into account that a rupee of cash received today is worth more than a rupee received a year from now because today's rupee can be invested to earn a return during the intervening time.

To establish the maximum acceptable acquisition price under the DCF approach, estimates are needed for (1) the incremental cash flows expected to be generated because of the acquisition and (2) the "discount rate" or "cost

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of capital” – that is, the minimum acceptable rate of return required by the market for new investments by the company.

In projecting the cash flow stream of a prospective acquisition, the cash flow contribution the candidate company is expected to make to the acquiring company should be considered. The results of this projection may well differ from a projection of the candidate’s cash flow as an independent company. This is so because of the acquirer may be able to achieve operating economies not available to the selling company alone. Furthermore, acquisitions generally provide new post-acquisition investment opportunities whose initial outlays and subsequent benefits also need to be incorporated in the cash flow schedule. Cash flow is defined as :

$$\begin{aligned} \text{Cash Flow} = & \text{(operating profit) (1-income tax rate)} \\ & + \text{depreciation and other non cash charges} \\ & - \text{(incremental working capital investment + capital expenditure)} \end{aligned}$$

In developing the cash flow schedule, two additional issues need to be considered: (1) What is the basis for setting the length of the forecast period (i.e., the period beyond which the cash flows associated with acquisition are not specifically projected) ? (2) How is the residual value of the acquisition established as the end of the forecast period?

Forecasting Target’s Cash Flow

A common practice is to forecast cash flows period by period until the level of uncertainty makes management too “uncomfortable” to go any farther. While practice varies with industry setting, management policy, and the special circumstances of the acquisition, five or ten years appears to be an arbitrarily set forecasting duration used in many situations. A better approach suggests that the forecast duration for cash flows should continue only as long as the expected rate of return on incremental investment required to support forecasted sales growth exceeds the cost-of-capital rate.

If, for subsequent periods, one assumes that the company’ return on incremental investment equals to the cost-of-capital rate, then the market would be indifferent to whether management invests in expansion projects or pays cash dividends. This is because shareholders can in turn invest in

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identically risky opportunities yielding an identical rate of return. In other words, the value of the company is unaffected by growth when the company is investing in projects earning at the cost of capital or at the minimum acceptable risk-adjusted rate of return required by the market.

Thus, for purposes of simplification, we can assume a 100% payout of earnings after the end of the forecast period or, equivalently, a zero growth rate without affecting the valuation of the company. (An implied assumption of this model is that the depreciation amount can be invested to maintain the company's productive capacity.) The residual value is then the present value of the resulting cash flow perpetuity beginning one year after the horizon date. Of course, if after the end of the forecast period the return on investment is expected to decline below the cost-of-capital rate, this factor can be incorporated in the calculation.

4.4 Exchange Ratio Determination

Typically, the acquiring firm offers its shares in exchange for the target firms shares. The offers is expressed in the form of exchange ratio which is defined as the number of shares the acquiring firm is willing to give in exchange for one share of the target firm.

For example an exchange ratio of 0.5 means that the acquiring firm is willing to give half a share for every share of the target firm. Hence, the exchange ratio is a critical issue in a merger deal. Acquiring firm would try to keep the exchange ratio as low as possible, whereas acquired firm would seek to keep it as high as possible.

(I) Composite Value Model

To arrive at the composite value per share of the firms, we need to find at

- (a) Yield value per share, Y V
- (b) Net Asset Value per share, NAV
- (c) Market value per share, MV

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$$\text{Composite value per share} = \frac{W1(YV)+W2(NAV)+W3(MV)}{W1+W2+W3}$$

Which is the weighted average value per share.

(A) *Yield Value Per Share*

This is determined by capitalising average maintainable projects at a rate of return expected by investors. For calculation of maintainable earnings, profit and capital employed over last five years is taken into account.

(B) *Net Asset Value*

The net asset value, as at the latest audited balance sheet date will be calculated starting from the total assets of the company and deducting there from all debts, dues and borrowing and liabilities including current and likely contingent liabilities and preference capital if any. In other words, it should represent the true “net worth” of the company, after providing for all outside present and potential liabilities.

(C) *Market Value*

The average market price will be determined taking into account the stock market quotations in the preceding three years (after making appropriate adjustments for bonus issues and dividend payment) as under :

- (a) The high and low of the preceding two years and
- (b) The high and low of each month in the preceding 12 month.

5. DATA ANALYSIS

5.1 Data collection sources/techniques

The financial reports of the companies were downloaded from their respective websites.

5.2 Procedure Followed

One of the fastest methods for modern companies to grow is through the merger and acquisition process. An acquisition is also an excellent exit strategy for companies that provide building block hardware, software or services to larger companies.

Overview of the Process

1. Selection of the Industry.
2. Selection of the Companies for M&A study.
3. Due Diligence
4. Study of the Synergies
5. Generation of projected financial statements based upon current ownership assumptions.
6. Estimation of the Company's (Target) market value.
7. Acquisition Mode: Stock or Cash?
8. Calculation of the Exchange Ratio

5.2.1 Case Analysis

Acquiring of Balrampur Chini Ltd. By ITC

Rationale:

Cyclical management opportunity

The sugar sector is impacted by induced cyclicality, since high sugar and sugarcane prices lead to increase in production at the cost of other crops. The resulting low prices for sugar impact the ability of mills to pay the farmers, thus leading to creation of arrears. High arrears lead to a significant fall in cane cultivation in the next year, leading to high sugar prices and increased attractiveness of cane.

Cyclical management is the opportunity to minimize arrears, thereby reducing the need for any financial support from the government. The removal of arrears would also remove induced cyclicality; thereby reducing the incidence of surplus and deficit production phases. Economically, this would translate into reducing the incidence of excess inventory build up in surplus phases and the need for potentially costly imports and government support during deficit phases.

Thus, ensuring the alignment between sugarcane and sugar prices would be the key policy imperative for managing cyclicality.

Domestic demand opportunity

In 2007, the domestic sugar consumption is estimated to be 19.5 million MT. It is expected that the drivers for consumption i.e. the GDP growth and population growth would continue to grow at current rates. Based on the past ten years' growth in consumption and estimates from various independent sources, it is expected that in 2017, the domestic sugar consumption would be approximately 28.5 million MT. Given the high cost of imports and the strategic importance of food security, India would need to target its production in excess of domestic consumption. Given the past trend in production cyclicality, sugar equivalent to 1.5 months of consumption i.e. an additional 3.5 million MT of sugar would need to be produced by 2017.

International trade opportunity

International trade is of strategic importance to India as it can help maintain stability in the domestic market, despite the cyclical nature of production. If there is a sugar surplus either due to excess production or due to greater economic attractiveness of cane for ethanol and cogen in the future, exports could be used if the surplus cannot be managed in the domestic market. Acceptability as a credible exporter will provide the Indian sector an alternate set of markets for diverting surplus production. Similarly, in case of deficits, raw sugar imports could help bridge the supply gap.

India has the potential to export to major Indian Ocean markets, due to freight competitiveness with respect to key competitors, Brazil and Thailand. With EU exports reducing by 4.5 million MT, world prices per MT of sugar are expected to increase in the range of USD 50 to USD 100. This could potentially make exports more viable for India. However, due to the increasing emergence of destination refineries, key markets are importing greater share of raw sugar, and India's competitiveness for raw exports is relatively lower as of today. Currently, India's competitiveness is higher in markets, where share of white sugar imports as percentage of cumulative imports is higher. Going forward, India would need to build the capability to produce raw sugar and refined sugar of international quality standards, in order to leverage the export opportunity.

The target markets are estimated to import 10 million MT of sugar by 2017. India would be able to leverage this opportunity through productivity improvements and alignment of cane and sugar prices in the domestic market. India's competitiveness can also be increased by enhancing export infrastructure like loading rates and draft in Indian ports. Since the current cost structure of the Indian industry is uncompetitive for exports, in case of a large sugar surplus, the government could consider using WTO compliant subsidies to enable exports while creating stability in the domestic market. The industry could also explore ways of collectively sharing losses due to

Effective Pricing & Valuation Models for Mergers & Acquisitions

exports, if any, since exports would enable lower stocks in the domestic market, thus benefiting both mills and farmers through higher sugar realization.

Productivity improvement opportunity

Encouraging efficiency at the mill side, quality improvement at the farm side and strengthening the farmer-miller relationship would be the key policy imperatives. Greater investments in research and development of seed varieties and adoption of improved farm practices will be key imperatives for improving farm productivity.

By-products opportunity

Fuel ethanol and surplus power production through cogeneration provide the two key by-products' related opportunities. Globally energy security and environmental concerns are driving the adoption of fuel ethanol across countries. Leading countries including Brazil, U.S., Europe, Australia, Canada and Japan have established fuel ethanol programmes. In the future, global fuel ethanol demand is likely to grow exponentially. Global ethanol exports, currently at 6.5 billion litres are expected to increase to 50 to 200 billion litres by 2020 .This increase would largely depend on world crude prices and regulatory evolution.

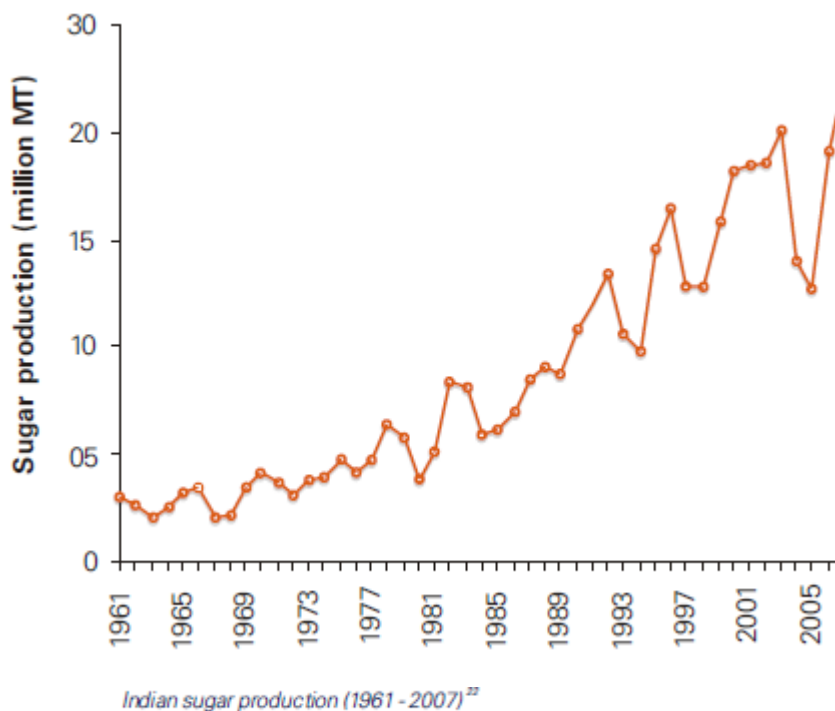
Sugar price risk management opportunity

Seasonal production of sugar along with yearlong consumption, results in large inventory. Such large inventory in a volatile price environment causes high sugar price risk for the sector. The total value of sugar inventory at risk over a year at 95 percent confidence interval is estimated at approximately INR 3,000 crore.

5.2.2 Due Diligence

5.2.2.i Market Analysis

The Indian sugar production has grown at a CAGR of 4.9 percent over the last 46 years. Sugar production has been increasing steadily but there have been periods of low production, due to a variety of reasons including pests and drought. Production has been cyclical, with the typical cycle duration ranging between 4 to 6 years.

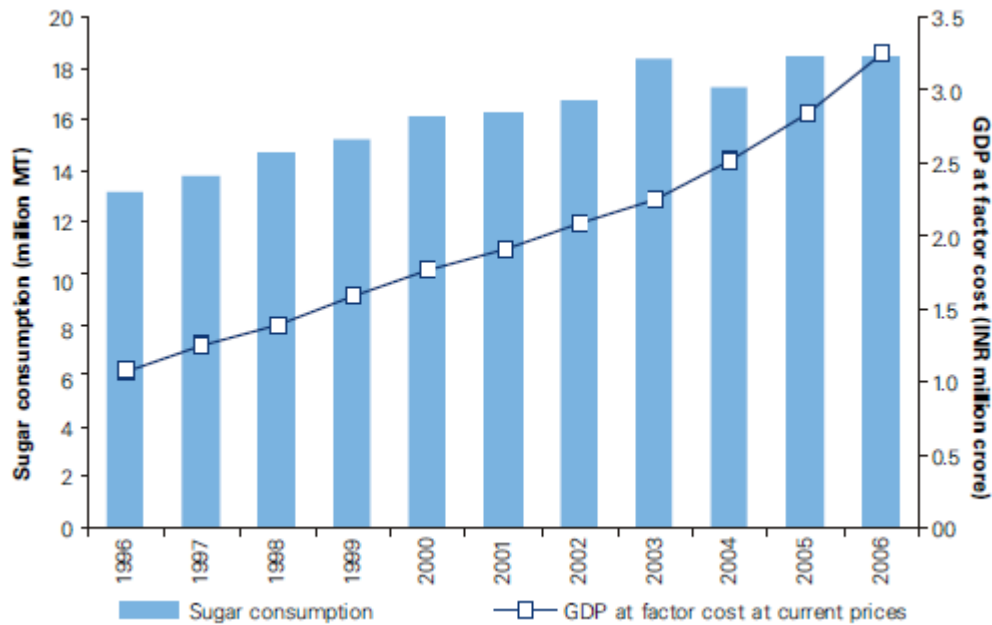


5.2.2.ii Demand Analysis

The Indian sugar consumption has steadily increased at 3.5 percent since 1996. Typically, sugar consumption is driven by the GDP growth and this has been the case

for India as well. The per capita consumption has seen a steady growth of 2.1 percent CAGR over this period, while the population has grown at a CAGR of 1.4 percent.

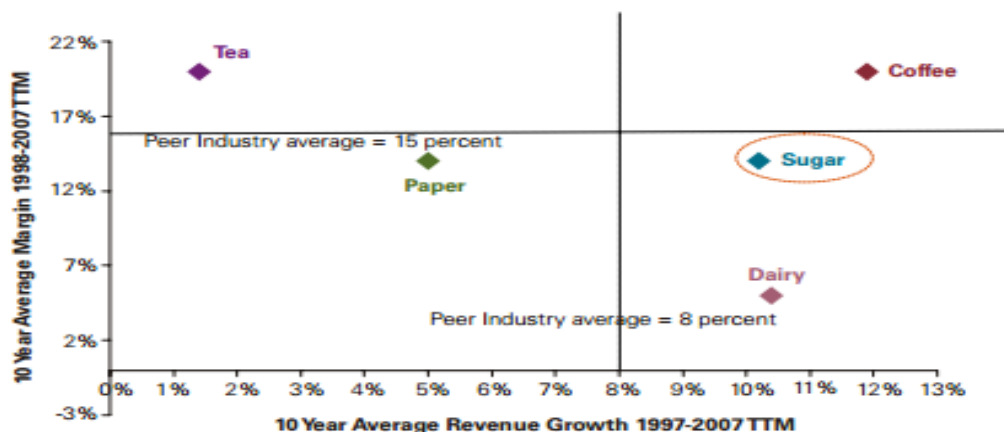
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Sugar consumption and GDP (1996-2006)

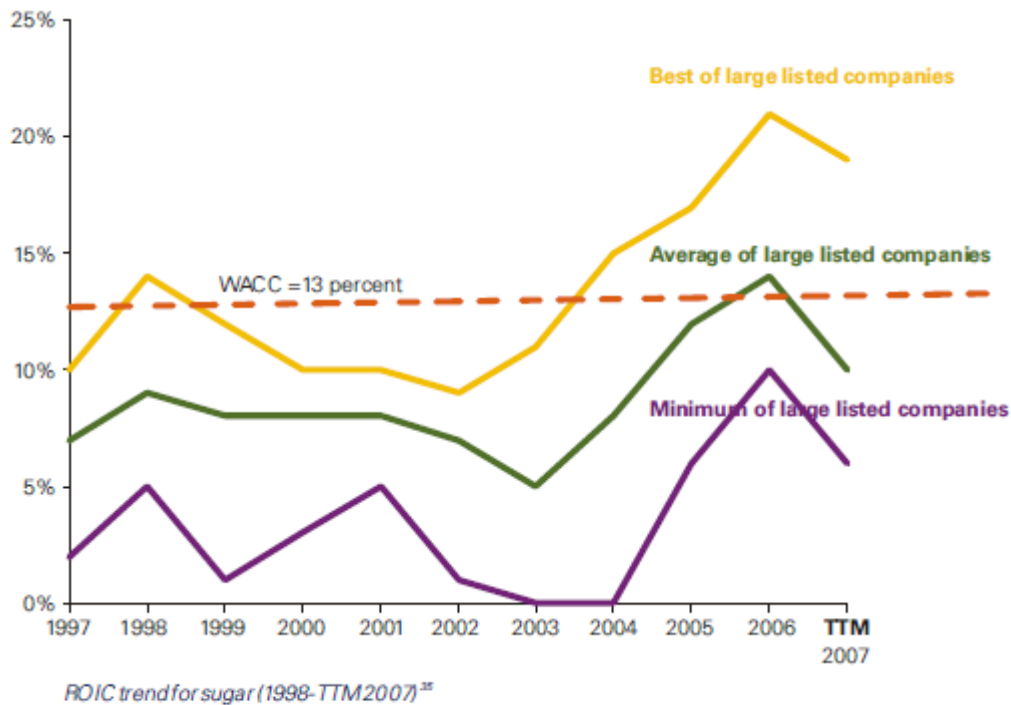
5.2.2.iii Revenue and Margins

While sugar has grown at a fast pace, its average margin is below the peer industry average. Its growth is comparable to dairy and coffee. However, in the past, tea and coffee have had better margins than sugar. In fact sugar's margin is comparable to paper, which has traditionally been a low margin industry. Therefore while large sugar firms and to some extent, the industry as a whole have grown in line with demand and new capacities have continuously been added, the growth has not been as profitable as some of the other industries.



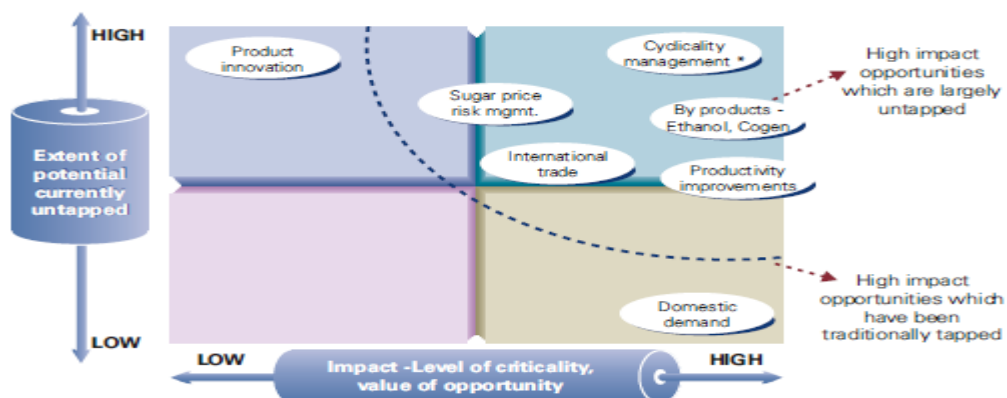
5.2.2.iv Return on Invested Capital (ROIC)

The cooperative sector and smaller sugar mills account for a significant proportion of the total sugar production. Their ROIC is typically lower than that of the large listed companies.



5.2.3 Synergy

- Diversification of the consumer products portfolio by adding a product with growing demand
- Vertical diversification as sugar is a important constituent raw material of many of the food product items in the portfolio



5.2.4 M&A activity in Sugar sector

- Dhampur Sugar acquired JK Sugar in share swap (275:1000) (2012)
- EID Parry acquired Cauvery Sugar in share swap (1 share of EID Parry for 20 shares of Cauvery Sugar) (2000)
- Merger of Mawana Sugar and SIEL (2 shares of Mawana for every 3 shares of SIEL) (2008)

Share swap is the predominant mode of M&A in Sugar sector

5.2.5 Valuation

About Balrampur Chini Ltd.

- one of the largest integrated sugar manufacturing companies in India
- allied business - Ethyl Alcohol & Ethanol, generation and selling of power and manufacturing and marketing of organic manure
- Company has sugar 11 factories located in U.P. having an aggregate crushing capacity of 79,000 tons per day
- Nearly 16% Market share

Ratios: Balrampur and Competitors (March 2014)

Table 5.1

Ratio	Balrampur Chini ltd.	Dhampur Sugar	EID Parry	Dwarikesh Sugar	Mawana Sugars
DEBT/EQUITY	0.55	2.93	1.4	3.8	--
DEBT SERVICE COVERAGE RATIO	0.7	--	4.03	--	--
INTEREST SERVICE COVERAGE RATIO	2.04	0.43	--	0.55	-1.35
EV/EBITDA	8.62	12.32	29.35	1.88	4.44

Source : money control, InFinancials

Effective Pricing & Valuation Models for Mergers & Acquisitions

- Lower the value of EV/EBITDA, cheaper the company is.
- Two companies are cheaper (Dwarkiesh and Mawana) but they are insolvent. They have huge debt and no profit. Therefore not fit for acquisition purpose.
- Interest service coverage ratio and debt equity of Balrampur Chini Ltd. is best amongst the peers.

Cash position of ITC

Current Investments + Cash and Bank Balances = Rs. 9600 Cr.

Table 5.2

Balance Sheet as at 31st March, 2014

	Note	As at 31st March, 2014 (₹ in Crores)		As at 31st March, 2013 (₹ in Crores)	
EQUITY AND LIABILITIES					
Shareholders' funds					
Share capital	1	795.32		790.18	
Reserves and surplus	2	25466.70	26262.02	21497.67	22287.85
Non-current liabilities					
Long-term borrowings	3	51.00		66.40	
Deferred tax liabilities (Net)	4	1296.96		1203.72	
Other Long term liabilities	5	5.09		3.11	
Long-term provisions	6	110.00	1463.05	125.62	1398.85
Current liabilities					
Short-term borrowings	7	0.14		-	
Trade payables		1987.59		1668.98	
Other current liabilities	8	3631.88		3528.62	
Short-term provisions	9	5884.71	11504.32	5133.13	10330.73
TOTAL			39229.39		34017.43
ASSETS					
Non-current assets					
Fixed assets	10				
Tangible assets		11948.69		11118.55	
Intangible assets		64.05		90.79	
Capital work-in-progress - Tangible assets		2272.94		1472.80	
Intangible assets under development		22.79		14.99	
		14308.47		12697.13	
Non-current investments	11	2512.17		2000.86	
Long-term loans and advances	12	1480.02	18300.66	1727.97	16425.96
Current assets					
Current investments	13	6311.26		5059.43	
Inventories	14	7359.54		6600.20	
Trade receivables	15	2165.36		1163.34	
Cash and bank balances	16	3289.37		3615.00	
Short-term loans and advances	17	783.51		512.14	
Other current assets	18	1019.69	20928.73	641.36	17591.47
TOTAL			39229.39		34017.43

Source: ITC Annual Report 2013-2014

ITC : FMCG (sans cigarette) fastest growing

Table 5.3

	Full Year		GOLY(%)
	2013-14	2012-13	
Segment Revenue (Net)			
a) FMCG - Cigarettes	15456	13970	10.6
- Others	8099	6983	16.0
Total FMCG	23555	20953	12.4
b) Hotels	1133	1074	5.5
c) Agri Business	7752	7201	7.7
d) Paperboards, Paper & Packaging	4861	4237	14.7
Total	37301	33464	11.5
Less : Inter segment revenue	4418	3859	14.5
Net sales / income from operations	32883	29606	11.1

Amount in crore, Source : ITC Annual Report 2013-2014

Valuation Calculation

Table 5.4

Particulars	2012	2013	2014	2015	2016	2017	2018	2019	2020
EBIT	15,519.12	35,442.30	13,051.65	15,764.71	18,863.81	22,398.22	26,423.22	31,000.83	36,200.64
NOPAT	12,578.61	28,726.82	10,578.67	12,777.67	15,289.56	18,154.28	21,416.64	25,126.90	29,341.47
FCF		17,901.08	-366.37	-8,382.52	1,515.32	3,336.73	5,474.64	7,972.78	10,880.45
Terminal Val									421910.7
				1	2	3	4	5	6
PV				-8,382.52	1367.804	2718.682	4026.345	5292.776	252820.7
PV at 13% WACC				-8382.52	1340.995	2613.152	3794.202	4889.856	228996.2

Amount in Lakh

Table 5.5

	In Rs. Lakhs
Enterprise Value at 13% WACC	233,251.92
Debt	112,140.88
Equity Val(EV - debt)	121,111.04
40.84% Promoters stake	49461.748

5.2.6 Stock or Cash?

Table 5.6

Overvalued or Undervalued?	
ITC	Balrampur Chini Ltd.
D1 = 6.85, r = .16, g =14	D1 = 2.2, r = .13, g =.10
Share price = 342	Share price = 74
Market Price = 332	Market Price = 50
Rightly Priced	Under Valued
Suits ITC to go for All Stock deal	

5.2.7 Synergy Risk

Table 5.7

ITC	Balrampur Chini Ltd.
Factors :	Cash strapped promoters may like to exit the business with cash.
Sugar being a highly controlled product,	
cyclical due to debt/production cycle,	
cheap imports	
There exists a real risk of shortfall in anticipated synergy benefits.	
Therefore, for ITC an all-Stock deal is a desirable mode of transaction. (Distribution of risk between acquirer and target)	

Table 5.8

Pre-closing Risk (Risk of fall in share price of acquirer between deal and closure.)	
ITC	
Very low	
Beta of ITC – 0.51 w.r.t. NSE	

5.2.8 Cost of acquisition

Acquiring controlling stake

- 40.84% of promoters stake
- Valued at Market price – 40.84% of 1,223.36 cr = 499.62 cr
- 40.84% of equity valuation – 494.62 cr
- Around Rs. 550 cr(with 10% premium)

Merging BCML with ITC

- Issue 4,05,73,478 shares for (1:6.04) share swap
- Ownership of existing ITC shareholders diluted by only 0.5%
- Equity value + Premium (10%)

Calculations for Projections of BCM

Table 5.9

Balance Sheet										
Particulars		Available Data For the FY		Projections for the FY						
		2012	2013	2014	2015	2016	2017	2018	2019	2020
I	Equity and Liabilities									
	1) Shareholder's funds									
	a) Share Capital	2,443.14	2,443.14	2,448.41	2,448.41	2,448.41	2,448.41	2,448.41	2,448.41	2,448.41
	b) Reserves and surplus	119,368.36	129,861.84	119,402.71	120,670.10	125,858.05	135,228.87	149,106.82	167,882.81	192,020.01
		121,811.50	132,304.98	121,851.12	123,118.51	128,306.46	137,677.28	151,555.23	170,331.22	194,468.42
	2) Non - current liabilities									
	a) Long - term borrowings	49,465.65	22,639.83	49,109.45	49,109.45	49,109.45	49,109.45	49,109.45	49,109.45	49,109.45
	b) Deferred tax liabilities (net)	22,447.22	23,059.94	26,450.30	29,514.85	32,934.46	36,750.27	41,008.18	45,759.42	51,061.14
	c) Other long - term liabilities	292.93	396.33	503.01	561.29	626.32	698.89	779.86	870.21	971.04
	d) Long - term provisions	1,096.01	979.03	235.42	262.70	293.13	327.09	364.99	407.28	454.47
		73,301.81	47,075.13	76,298.18	79,448.29	82,963.36	86,885.70	91,262.49	96,146.37	101,596.10
	3) Current liabilities									
	a) Short - term borrowings	122,122.15	126,020.32	85,690.58	95,618.75	106,697.21	119,059.22	132,853.51	148,246.01	165,421.89
	b) Trade payables	61,708.67	71,200.92	101,539.06	113,303.45	126,430.86	141,079.23	157,424.77	175,664.12	196,016.69
	c) Other current liabilities	41,689.02	40,040.80	30,037.88	30,037.88	30,037.88	30,037.88	30,037.88	30,037.88	30,037.88
	d) Short - term provisions	220.92	5,979.22	302.24	337.26	376.33	419.93	468.59	522.88	583.46

Effective Pricing & Valuation Models for Mergers & Acquisitions

		225,740.76	243,241.26	217,569.76	239,297.34	263,542.28	290,596.27	320,784.75	354,470.89	392,059.92
	Total	420,854.07	422,621.37	415,719.06	441,864.13	474,812.11	515,159.25	563,602.46	620,948.48	688,124.44
II	Assets									
	1) Non - current assets									
	a) Fixed assets									
	i) Tangible assets	161,167.28	152,039.73	152,180.70	152,180.70	152,180.70	152,180.70	152,180.70	152,180.70	152,180.70
	ii) Intangible assets	80.97	73.63	55.81	55.81	55.81	55.81	55.81	55.81	55.81
	iii) Capital work-in-progress	42.55	510.98	30.13	30.13	30.13	30.13	30.13	30.13	30.13
		161,290.80	152,624.34	152,266.64	152,266.64	152,266.64	152,266.64	152,266.64	152,266.64	152,266.64
	b) Non - current investments	4,424.94	4,323.49	4,087.33	4,087.33	4,087.33	4,087.33	4,087.33	4,087.33	4,087.33
	c) Long - term loans and advances	6,208.58	6,618.73	7,110.03	7,110.03	7,110.03	7,110.03	7,110.03	7,110.03	7,110.03
	d) Other non - current assets	84.53	17,108.25	17,108.45	19,083.84	21,287.59	23,746.13	26,488.92	29,548.87	32,962.67
		172,008.85	180,674.81	180,572.45	182,547.84	184,751.59	187,210.13	189,952.92	193,012.87	196,426.67
	2) Current assets									
	a) Inventories	199,779.04	188,657.10	209,228.86	233,470.26	260,520.29	290,704.36	324,385.57	361,969.11	403,907.11
	b) Trade receivables	14,695.99	18,137.74	6,405.67	16,469.91	18,378.12	20,507.43	22,883.43	25,534.72	28,493.19
	c) Cash and bank balances	1,147.42	19,119.15	14,344.36	4,208.40	5,994.38	11,569.62	21,212.82	35,264.05	54,129.75
	d) Short - term loans and advances	15,911.85	15,600.57	2,829.42	2,829.42	2,829.42	2,829.42	2,829.42	2,829.42	2,829.42
	e) Other current assets	17,310.92	432.00	2,338.30	2,338.30	2,338.30	2,338.30	2,338.30	2,338.30	2,338.30
		248,845.22	241,946.56	235,146.61	259,316.29	290,060.52	327,949.12	373,649.54	427,935.60	491,697.77
	Total	420,854.07	422,621.37	415,719.06	441,864.13	474,812.11	515,159.25	563,602.46	620,948.48	688,124.44

Effective Pricing & Valuation Models for Mergers & Acquisitions

Profit and Loss										
Particulars		2012	2013	2014	2015	2016	2017	2018	2019	2020
I	Revenue from operations (Gross)									
	Sale of Goods (Gross)	239,031.15	338,403.03	275,870.88						
	Less: Excise duty	8,076.52	10,919.00	9,376.45						
	Net sale of goods	230,954.63	327,484.03	266,494.43	266,494.43	266,494.43	266,494.43	266,494.43	266,494.43	266,494.43
	Other operating revenue	-	-							
	Revenue from operations (net)	230,954.63	327,484.03	266,494.43	297,370.66	331,824.24	370,269.63	413,169.33	461,039.42	514,455.77
II	Other income	2,773.86	4,280.13	2,594.47	2,788.00	2,995.97	3,219.46	3,459.61	3,717.68	3,995.00
III	Total revenue (I + II)	233,728.49	331,764.16	269,088.90	300,158.67	334,820.21	373,489.09	416,628.94	464,757.10	518,450.77
IV	Expenses:									
	Cost of materials consumed	226,263.21	241,090.95	227,500.10	253,858.42	283,270.64	316,090.57	352,713.05	393,578.64	439,178.93
	Changes in inventories of finished goods, by products and work-in-progress	-48,709.68	10,804.50	-18,410.17	-19,783.47	-21,259.21	-22,845.03	-24,549.15	-26,380.38	-28,348.22
	Employee benefits expense	11,774.27	12,945.82	14,170.17	15,510.31	16,977.20	18,582.82	20,340.29	22,263.97	24,369.58
	Finance cost	14,741.11	14,386.70	11,784.26	10,576.76	9,492.99	8,520.27	7,647.22	6,863.63	6,160.34
	Depreciation and amortisation expense	11,078.09	10,825.74	10,945.04	11,732.22	12,576.02	13,480.50	14,450.04	15,489.31	16,603.32
	Other expenses	17,803.48	20,654.85	21,832.11	23,076.47	24,391.75	25,782.01	27,251.50	28,804.75	30,446.52

Effective Pricing & Valuation Models for Mergers & Acquisitions

	Total Expenses	232,950.48	310,708.56	267,821.51	294,970.72	325,449.39	359,611.14	397,852.95	440,619.90	488,410.47
V	Profit before exceptional and extra ordinary items and tax (III-IV)	778.01	21,055.60	1,267.39	5,187.95	9,370.82	13,877.95	18,775.99	24,137.20	30,040.30
VI	Exceptional items	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VII	Profit before extraordinary items and tax (V-VI)	778.01	21,055.60	1,267.39	5,187.95	9,370.82	13,877.95	18,775.99	24,137.20	30,040.30
VIII	Extraordinary items	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IX	Profit before tax (VII-VIII)	778.01	21,055.60	1,267.39	5,187.95	9,370.82	13,877.95	18,775.99	24,137.20	30,040.30
X	Tax expense									
	Current tax (MAT)	156.00	4,240.00	360.00						
	Deferred tax	-37.56	612.72	3,390.36						
	Tax provision for earlier years written back	-2.92	0.00	-2,847.05						
		115.52	4,852.72	903.31	982.99	1,775.55	2,629.55	3,557.61	4,573.43	5,691.93
XI	Profit for the year (IX-X)	662.49	16,202.88	364.08	4,204.95	7,595.27	11,248.40	15,218.38	19,563.77	24,348.37
XII	Earning per share (Nominal value per share Rs. 1/-)									
	- Basic (Rs)	0.27	6.63	0.15						
	-Diluted (Rs.)	0.27	6.63	0.15						
	Number of shares used in computing Earnings per share									
	- Basic	245,840,964.00	244,313,923.00	244,840,817.00						

Effective Pricing & Valuation Models for Mergers & Acquisitions

	-Diluted	245,972,374.00	244,440,797.00	244,962,929.00						
		Cash Flow Statement								
Particulars		2012	2013	2014	2015	2016	2017	2018	2019	2020
Cash from Operations										
	PAT		16,202.88	364.08	4,204.95	7,595.27	11,248.40	15,218.38	19,563.77	24,348.37
	Adjust for interest		14,386.70	11,784.26	10,576.76	9,492.99	8,520.27	7,647.22	6,863.63	6,160.34
	Adjust for D&A		10,825.74	10,945.04	11,732.22	12,576.02	13,480.50	14,450.04	15,489.31	16,603.32
	Increase/(Decrease) in Deferred tax liabilities (net)		612.72	3,390.36	3,064.55	3,419.61	3,815.81	4,257.91	4,751.24	5,301.72
	Increase/(Decrease) in Other long - term liabilities		103.40	106.68	58.28	65.03	72.57	80.97	90.36	100.82
	Increase/(Decrease) in Long - term provisions		-116.98	-743.61	27.28	30.44	33.96	37.90	42.29	47.19
	Increase/(Decrease) in Short - term borrowings		3,898.17	-40,329.74	9,928.17	11,078.46	12,362.01	13,794.29	15,392.50	17,175.89
	Increase/(Decrease) in Trade payables		9,492.25	30,338.14	11,764.39	13,127.42	14,648.37	16,345.54	18,239.35	20,352.57
	Increase/(Decrease) in Other current liabilities		-1,648.22	-10,002.92	0.00	0.00	0.00	0.00	0.00	0.00

Effective Pricing & Valuation Models for Mergers & Acquisitions

	Increase/(Decrease) in Short - term provisions		5,758.30	-5,676.98	35.02	39.07	43.60	48.65	54.29	60.58
	Decrease/(Increase) in Inventories		11,121.94	-20,571.76	-24,241.40	-27,050.03	-30,184.07	-33,681.21	-37,583.54	-41,938.00
	Decrease/(Increase) in Trade receivables		-3,441.75	11,732.07	-10,064.24	-1,908.22	-2,129.30	-2,376.00	-2,651.29	-2,958.47
Cash from Financing										
	Increase/(Decrease) in Share Capital		0.00	5.27	0.00	0.00	0.00	0.00	0.00	0.00
	Increase/(Decrease) in Long - term borrowings		-26,825.82	26,469.62	0.00	0.00	0.00	0.00	0.00	0.00
	Dividend paid		-5,709.40	-10,823.21	-2,937.56	-2,407.32	-1,877.58	-1,340.44	-787.77	-211.17
	Financing cost		-14,386.70	-11,784.26	-10,576.76	-9,492.99	-8,520.27	-7,647.22	-6,863.63	-6,160.34
Cash from Investing										
	Decrease/(Increase) in Tangible assets		9,127.55	-140.97	0.00	0.00	0.00	0.00	0.00	0.00
	Decrease/(Increase) in Intangible assets		7.34	17.82	0.00	0.00	0.00	0.00	0.00	0.00
	Decrease/(Increase) in Capital work-in-progress		-468.43	480.85	0.00	0.00	0.00	0.00	0.00	0.00
	Decrease/(Increase) in Non - current investments		101.45	236.16	0.00	0.00	0.00	0.00	0.00	0.00

Effective Pricing & Valuation Models for Mergers & Acquisitions

	Decrease/ (Increase) in Other non - current assets		-17,023.72	-0.20	-1,975.39	-2,203.75	-2,458.54	-2,742.80	-3,059.95	-3,413.80
	Decrease/ (Increase) in Other current assets		16,878.92	-1,906.30	0.00	0.00	0.00	0.00	0.00	0.00
	Decrease/ (Increase) in Long - term loans and advances		-410.15	-491.30	0.00	0.00	0.00	0.00	0.00	0.00
	Decrease/ (Increase) in Short - term loans and advances		311.28	12,771.15	0.00	0.00	0.00	0.00	0.00	0.00
	Maintenance Capex (= depreciation)		-10,825.74	-10,945.04	-11,732.22	-12,576.02	-13,480.50	-14,450.04	-15,489.31	-16,603.32
	Cash and bank balances		17,971.73	-4,774.79	-10,135.96	1,785.98	5,575.24	9,643.20	14,051.23	18,865.70
	Cash and bank balances		17,971.73	-4,774.79	-10,135.96	1,785.98	5,575.24	9,643.20	14,051.23	18,865.70

Effective Pricing & Valuation Models for Mergers & Acquisitions

Assumptions for Projections of BCML

Table 5.10

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Remarks
Income										
Revenue from operations	230954.63	327484.03	266494.43	297370.66	331824.24	370269.63	413169.33	461039.42	514455.77	Fixed Growth
yoy growth		41.80%	-18.62%	11.59%	11.59%	11.59%	11.59%	11.59%	11.59%	
Other income	2773.86	4280.13	2594.47	2788.00	2995.97	3219.46	3459.61	3717.68	3995.00	Fixed Growth
yoy growth		54.30%	-39.38%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	
RM Costs	226263.21	241090.95	227500.10	253858.42	283270.64	316090.57	352713.05	393578.64	439178.93	% of Rev
% of rev from ops	97.97%	73.62%	85.37%	85.37%	85.37%	85.37%	85.37%	85.37%	85.37%	
Changes in inventories of finished goods, by products and work-in-progress	-48709.68	10804.50	-18410.17	-19783.47	-21259.21	-22845.03	-24549.15	-26380.38	-28348.22	%of COGS
		4.48%	-8.09%	-6.50%	-6.50%	-6.50%	-6.50%	-6.50%	-6.50%	
Employee benefits expense	11774.27	12945.82	14170.17	15510.31	16977.20	18582.82	20340.29	22263.97	24369.58	Fixed growth

Effective Pricing & Valuation Models for Mergers & Acquisitions

		9.95%	9.46%	9.46%	9.46%	9.46%	9.46%	9.46%	9.46%	
Finance cost	14741.11	14386.70	11784.26	10576.76	9492.99	8520.27	7647.22	6863.63	6160.34	Fixed growth
		-2.40%	-18.09%	-10.25%	-10.25%	-10.25%	-10.25%	-10.25%	-10.25%	
Depreciation and amortization expense	11078.09	10825.74	10945.04	11732.22	12576.02	13480.50	14450.04	15489.31	16603.32	% of tangible assets
	6.87%	7.12%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	7.19%	
Other expenses	17803.48	20654.85	21832.11	23076.47	24391.75	25782.01	27251.50	28804.75	30446.52	Fixed growth
		16.02%	5.70%	5.70%	5.70%	5.70%	5.70%	5.70%	5.70%	
Tax	115.52	4852.72	903.31	982.99	1775.55	2629.55	3557.61	4573.43	5691.93	Fixed growth
% of PBT	15%	23%	71%	19%	19%	19%	19%	19%	19%	
a) Share Capital	2443.14	2443.14	2448.41	2448.41	2448.41	2448.41	2448.41	2448.41	2448.41	
b) Reserves and surplus	119368.36	129861.84	119402.71	123607.66	131202.93	142451.34	157669.72	177233.49	201581.86	R&S + profit
b)Deferred tax liabilities (net)	22447.22	23059.94	26450.30	29514.85	32934.46	36750.27	41008.18	45759.42	51061.14	% of Rev
	0.10	0.07	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
c) Other long - term liabilities	292.93	396.33	503.01	561.29	626.32	698.89	779.86	870.21	971.04	% of rev
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Effective Pricing & Valuation Models for Mergers & Acquisitions

d) Long - term provisions	1096.01	979.03	235.42	262.70	293.13	327.09	364.99	407.28	454.47	% of rev
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
a) Short - term borrowings	122122.15	126020.32	85690.58	95618.75	106697.21	119059.22	132853.51	148246.01	165421.89	
	0.54	0.52	0.38	0.38	0.38	0.38	0.38	0.38	0.38	
b) Trade payables	61708.67	71200.92	101539.06	113303.45	126430.86	141079.23	157424.77	175664.12	196016.69	% of COGS
As % of COGS (RM)	0.27	0.30	0.45	0.45	0.45	0.45	0.45	0.45	0.45	
d) Short - term provisions	220.92	5979.22	302.24	337.26	376.33	419.93	468.59	522.88	583.46	% of COGS
	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Assets										
1) Non - current assets										
a) Fixed assets										Constant
i) Tangible assets	161167.28	152039.73	152180.70							
ii) Intangible assets	80.97	73.63	55.81							
iii) Capital work-in-progress	42.55	510.98	30.13							
	161290.80	152624.34	152266.64	152266.64	152266.64	152266.64	152266.64	152266.64	152266.64	constant
		-5.37%	-0.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

Effective Pricing & Valuation Models for Mergers & Acquisitions

b) Non - current investments	4424.94	4323.49	4087.33							constant
c) Long - term loans and advances	6208.58	6618.73	7110.03							constant
d) Other non - current assets	84.53	17108.25	17108.45	19,083.84	21,287.59	23,746.13	26,488.92	29,548.87	32,962.67	% of Rev
	0.00	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
2) Current assets										
a) Inventories	199779.04	188657.10	209228.86	233470.26	260520.29	290704.36	324385.57	361969.11	403907.11	% of COGS
	0.88	0.78	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
b) Trade receivables	14695.99	18137.74	6405.67	16469.91	18378.12	20507.43	22883.43	25534.72	28493.19	% of rev
% of rev	6%	6%	2%	6%	6%	6%	6%	6%	6%	

Effective Pricing & Valuation Models for Mergers & Acquisitions

M&A Exchange Ratio and Accretion/Dilution Calculation

Table 5.11

Data		
	BCL	ITC
Share price	50	332
EPS forecast	2.4	12.22
Shares outstanding	244,916,267	7,995,435,531
Assumptions		
100% equity purchase		
10% premium		
40% stock, 40% debt, 20% cash		
Debt interest 10%		
Acquirer tax rate 33%		
Pre tax synergies		
Goodwill amortization		

Table 5.12

Input	
Premium	10%
Stock portion	100%
Debt portion	0%
cash portion	0%
Interest Rate	10%
Tax Rate	33%
Synergy	500
Years to Amortize	10

Effective Pricing & Valuation Models for Mergers & Acquisitions

Table 5.13

Calculation		
	Target	Acquirer
Total Equity	12245813350.00	2654484596292.00
PE	20.83	27.17
Premium	5.00	
Offer price	55.00	
Offer value	13470394685.00	
Equity portion	13470394685.00	
Debt portion	0.00	
cash portion	0.00	
Shares issued		40573477.97
Exchange ratio	0.17	6.04
Goodwill created		1224581335.00
Goodwill amortization		122458133.50
Additional Interest expense		0.00

Table 5.14

Accretion/Dilution	Target	Acquirer	Pro Forma
Share Price	50	332	
EPS	2.4	12.22	
Shares Outstanding	244916267	7995435531	8036009008.97
Net Income Pre-Adjustments	587799041	97704222189	98292021230
Adjustments			
Planned Synergies			500
Interest Expense			0.00
Goodwill Amortization			122458133.50
Total Pretax Adjustments			-122457633.50
Tax effect			-40411019.06
Total Adjustments			-82046614.45
Proforma Net Income			98209974615.18
Diluted Shares Outstanding			8036009008.97
Proforma EPS			12.2212375
Accretion/Dilution per share			0.001237496
Accretion/Dilution %			0%

Formaulas Used

1. WACC computation for a company funded only through Debt and Equity is as follows:

$$WACC = k_d \times (1 - T_c) \times \frac{D}{D + E} + k_e \times \frac{E}{D + E}$$

Where

- k_d = cost of interest bearing debt
- D = market value of debt
- k_e = cost of equity
- E = market value of equity
- T_c = marginal tax rate

2. Cost of Equity

$$K_e = R_f + (R_m - R_f) * \beta$$

Key components of the cost of equity are:

- the risk free rate (R_f)
- the market risk premium ($R_m - R_f$)
- the equity beta (β)

Effective Pricing & Valuation Models for Mergers & Acquisitions

Valuation using Future Cash Flows (FCF)

$$\text{Value} = \text{FCF}_1/(1+r)^1 + \text{FCF}_2/(1+r)^2 + \dots + \text{FCF}_5/(1+r)^5 + \text{FCF}_6/r/(1+r)^6$$

$$\text{NOPAT} = \text{EBIT} (1-T)$$

$$\text{FCF} = \text{NOPAT} - \text{new net CAPEX}$$

$$k \text{ (Capitalization Rate)} = \text{WACC} - g$$

$$\text{Terminal Value} = \text{FCFn} / k$$

5.3 Recommendation

- Sugar is a product with ever increasing demand, with no real substitute
- 3-4 years cycle of over production to shortage due price risk mismanagement
- ITC with its agri biz experience can manage the risk
- Scope for operating efficiency improvement and exports
- Valuation cheap at present
- Can go for acquisition in a share swap deal (1:6.04)

5.4 Limitations of the Project

Due to the time constraint, the project has been limited upto calculating and projecting the future cash flows, valuation of the target company, exchange ratio and inference on the basis this output whether to go for M&A or not and which option to exercise i.e. through cash or stock option

Discussion

It's hard for investors to know when a deal is worthwhile. The burden of proof should fall on the acquiring company. To find mergers that have a chance of success, investors should start by looking for some of these simple criteria:

1. A reasonable purchase price - A premium of, say, 10% above the market price seems within the bounds of level-headedness. A premium of 50%, on the other hand, requires synergy of stellar proportions for the deal to make sense. Stay away from companies that participate in such contests.
2. Cash transactions - Companies that pay in cash tend to be more careful when calculating bids and valuations come closer to target. When stock is used as the currency for acquisition, discipline can go by the wayside.
3. Sensible appetite – An acquiring company should be targeting a company that is smaller and in businesses that the acquiring company knows intimately. Synergy is hard to create from companies in disparate business areas. Sadly, companies have a bad habit of biting off more than they can chew in mergers.
4. Mergers are awfully hard to get right, so investors should look for acquiring companies with a healthy grasp of reality

CONCLUSION

M&As have become very popular over the years especially during the last two decades owing to rapid changes that have taken place in the business environment. Business firms now have to face increased competition not only from firms within the country but also from international business giants thanks to globalization, liberalization, technological changes and other changes. Generally the objective of M&As is wealth maximization of shareholders by seeking gains in terms of synergy, economies of scale, better financial and marketing advantages, diversification and reduced earnings volatility, improved inventory management, increase in domestic market share and also to capture fast growing international markets abroad. But astonishingly, though the number and value of M&As are growing rapidly, the results of the studies on the impact of mergers on the performance from the acquirers' shareholders perspective have been highly disappointing.

Examination of the financial position of the target company is quite significant before the takeovers are concluded. Areas that require thorough examination are stocks, salability of finished products, value and quality of receivables, details and location of fixed assets, unsecured loans, claims under litigation, and loans from the promoters. A London Business School study in 1987 highlighted that an important influence on the ultimate success of the acquisition is a thorough audit of the target company before the takeover. When ITC took over the paper board making unit of BILT near Coimbatore, it arranged for comprehensive audit of financial affairs of the unit. Many a times the acquirer is misled by window-dressed accounts of the target.

The risk of failure can be reduced by conducting detailed evaluation of the target company's business condition by the professionals in the line of business. Detailed examination of the manufacturing facilities, product design features, and rejection rates, marketing net work, profile of key people and productivity of the employees is a pre-requisite for the success of the merger. Decision to acquire the target company should not be influenced by the state of the art physical facilities which include, among other, a good head quarters building, guest house on a beach and plenty of land for expansion.

Effective Pricing & Valuation Models for Mergers & Acquisitions

Making the mergers work successfully is a complicated process which involves not only putting two organizations together but also involves integrating people of two organizations with different cultures, attitudes and mindsets. Meticulous pre-merger planning including conducting proper due diligence, effective communication during the integration, committed and competent leadership, and speed with which the integration plan is integrated, together will pave for the success of M&As.

Further Scope

The project may further be extended to calculate key business ratios, pre and post-acquisition, purchase price, structure, and terms, Projected Financial Statements Based upon New Ownership Assumptions for the M&A taking / have taken place.

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