

Impact of Cost Optimization on Economic Value Added in Selected Consumer Product Companies

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ABSTRACT

The Global Economic Meltdown severely affected the world economy, causing the corporate sector to experience significant drops in business volume and profitability. Facing intense pressure to create shareholder value, companies have been forced to re-examine their corporate strategies, particularly regarding cost management. While there is limited global research on value creation through cost optimization, such studies are non-existent in India. This gap motivated the researcher to conduct the present study in the consumer product sector. Five market leaders were selected, and cost and financial data from 2008 to 2012 were collected from their annual reports and other official records.

Key words: Beta, Cost Optimization, Cost of Capital, Economic Value Added, Employees Cost

Introduction

The Global Economic Downturn and rising inflation have exerted severe pressure on the profit margins of Corporate India, particularly within the consumer product manufacturing sector. To survive, companies have deployed various cost-cutting measures, yet few have focused on holistic cost optimization—which creates value through cost minimization. Motivated by this industry challenge, this study investigates cost optimization strategies across all major departments, including procurement, production, sales, and transportation. The paper analyzes the relationship between cost components, cost structures, and value addition. Furthermore, it assesses the awareness of cost optimization among industry managers and the impact of these strategies on value creation. Ultimately, the study proposes actionable cost optimization strategies designed to improve corporate bottom lines and maximize shareholder value.

Literature Review

Aziz Moallen (2006) examined the cost optimization of a factory's production line and developed an algorithmic solution for it. Kanahalli (2013) conducted a study on cost optimization strategies in the food and beverage sector in India, concluding that cost optimization is not a one-time exercise but a continuous process. This process aims to take a holistic view of various functional areas of management, identifying waste and potential areas for improvement without compromising product quality. Mittal et al. (2007) examined cost optimization in the Indian cement industry and suggested an approach and framework for an effective study to achieve these benefits. Neetha Bapurikar (2012) attempted to develop approaches for building a competitive advantage, which in turn helps reduce strategic costs in financial services institutions. According to her, a firm that makes an organizational commitment to design, implement, and monitor a strategic cost reduction programme can achieve a dramatic increase in efficiency. Saurine Doshi et al.

(2009) took the view that controlling the total delivered cost of products is key to profitability, suggesting that companies should adopt strategic sourcing and redesign distribution networks to achieve cost optimization objectives..

Objectives of the Study

- 1) To assess the level of awareness among managers regarding cost optimization practices.
- 2) To analyze cost trends across various organizational cost centers.
- 3) To establish the correlation between costs incurred and corresponding value added to the business.
- 4) To evaluate the impact of cost-reduction initiatives on overall value creation.
- 5) To offer suggestion for enhancing value creation through targeted cost optimization.

Research Methodology

The study is descriptive in nature and covers the period from 2008-09 to 2012-13. Data was collected from both primary and secondary sources. Primary sources included interactions with the cost managers of sample companies, while secondary sources comprised annual reports, research articles, accounting and finance journals, and business newspapers such as Business Line and Economic Times. Data analysis was conducted using Beta and Economic Value Added (EVA) tools. Beta was calculated using the designated formula, and EVA was calculated using the formula. The cost of equity was determined using the Capital Asset Pricing Model (CAPM) methodology, and the gathered data was analyzed using the percentage method.

Limitations of the study

The study is restricted to a few cost centers of the sample companies. The storage, production, sales, packaging, advertising, and transportation departments, among others, were excluded from the scope of the study. Furthermore, the consumer durables sector, which was also severely affected by rising costs and inflation, was not analyzed.

Economic value-added

It is a tool of monitoring and measuring the performance of business. It is calculated by deducting cost of capital from after-tax cash flow generated by a business. It can help the company in business planning. The researcher tried to use EVA as a mean of measurement of relationship between various cost and EVA itself.

Data analysis

Dabur India Ltd.

Dr. S.K. Burman started a small scale enterprise in the year 1884 to manufacture healthcare products. Over a period of time, the enterprise had grown and in the year 1936 Dabur India limited becomes a full-fledged company. This company is the fourth largest FMCG Company in India with revenue of over Rs.6146 crore and market capitalization 5 billion of US dollar. Dabur operates in key consumer products categories like Hair care, oral care, Health care, skin care, Home care and Foods. The impact of employee cost on economic value added is presented in table-1

Table-1: Year-wise Employee cost and EVA

Year	Emp. Cost (Crores)	% change	Beta	Rf %	Rm %	CoC %	NPBT (Crores)	Tax (Crores)	NOPA T (Crores)	CoC (Crores)	EVA (Crores)	% Change
2008-09	149.69	-	0.06	0.04	0.85	-0.01	365.18	48.4	316.78	13.56	303.21	-
2009-10	167.37	11.77	1.03	0.06	0.15	-0.09	425	51.44	373.56	5.10	368.45	21.51

2010-11	212034	26.89	-5.47	0.07	-0.25	-1.82	527.03	93.7	433.33	-305.21	738.54	10.44
2011-12	230.84	8.71	-0.19	0.09	0.29	0.06	596.26	124.85	471.41	23.90	447.50	-39.40
2012-13	243.37	5.42	0.85	0.08	-0.08	0.12	631.92	123.79	508.13	40.56	467.56	4.48

The data in the table-1 demonstrates no correlation between employee cost and economic value added. Consequently, altering employee costs has no discernible effect on economic value added; indicating that optimizing these costs yields no bearing on value creation.

Table-2: Year-wise Material Cost and EVA (in Crores)

Year	Material cost	%Change	EVA	% Change
2008-09	1026.98	-	303.21	-
2009-10	1271.74	23.83	368.45	21.51
2010-11	1393.97	09.61	738.54	100.44
2011-12	1740.68	24.87	447.50	-39.40
2012-13	2092.87	20.23	467.56	4.48

Analysis of Table -2 reveals a direct correlation between material costs and Economic Value Added (EVA). Specifically, a reduction in material costs during 2010–11 resulted in an increase in EVA, whereas an increase in material costs during 2011–12 led to a decrease in EVA. Therefore, it is concluded that there is a viable opportunity for cost optimization within the material cost category

Table-3: Year-wise Operating Cost and EVA (in Crores)

Year	Total cost	%Change	EVA	% Change
2008-09	1706.82	-	303.21	-
2009-10	2003.12	17.35	368.45	21.51
2010-11	2325.50	16.09	738.54	100.44
2011-12	2728.36	17.32	447.50	-39.40
2012-13	3158.74	15.77	467.56	4.48

Table 3 demonstrates a correlation between operating costs and Economic Value Added (EVA). The decrease in operating costs during 2010–2011 resulted in an increase in EVA, whereas the marginal increase in operating costs during 2011–2012 led to a significant decline. Consequently, it can be concluded that operating costs and EVA are strongly correlated

Table-4: Year-wise Financial Cost and EVA (in Crores)

Year	Interest	Pref. Dividend	Equity Dividend	Total FC	% Change	EVA	% Change
2008-09	10.92	-	129.60	140.52	-	303.21	-
2009-10	14.47	-	151.39	165.86	18.03	368.45	21.51
2010-11	13.28	-	173.60	186.88	12.67	738.54	100.44
2011-12	12.93	-	200.19	213.12	14.04	447.50	-39.40
2012-13	13.40	-	226.47	239.87	12.55	467.56	4.48

The data in table -4 indicates a strong correlation between financial costs and economic value added. A reduction in financial costs during the 2010-11 period correlated with an increase in Economic Value Added (EVA), whereas a marginal increase in costs during 2011-12 resulted in a significant decline in EVA. Consequently, it is reasonable to conclude that financial costs and EVA are strongly correlated.

ITC LTD

ITC was incorporated in the year 1910 under the name Imperial Tobacco Company of India Limited. As the Company's ownership progressively Indianized, the name of the Company was changed from Imperial Tobacco Company of India Limited to India Tobacco Company Limited in 1970 and 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 with effective from 18th September 2001. The Company now stands rechristened 'ITC Limited'. The correlation between employee cost and EVA was presented in the table-5.

Table-5: Year-wise Employee Cost and EVA (in Crores)

Year	Emp. cost	% change	Beta	Rf %	Rm %	CoO %	NPBT	Tax	NOPAT	CoC	EVA	% Change
1	2	3	5				7	8	9(7-8)			
2008-09	745	-	0.29	0.04	0.85	0.27	4571.77	1480.97	3090.8	152.33	2938.46	-
2009-10	903.37	21.25	1.18	0.06	0.15	0.11	4825.74	1565.13	3260.61	136.08	3124.52	6.33
2010-11	1014.87	12.34	-2.51	0.07	-0.25	0.80	6015.31	1965.43	4049.88	700.28	3349.59	7.20
2011-12	1178.46	16.11	-3.25	0.09	0.29	-0.66	7268.16	2287.69	4980.47	-431.12	7699.28	129.85
2012-13	1265.41	7.37	3.38	0.08	-0.08	-0.57	8897.53	2737.08	6160.45	-367.43	9264.96	20.33

Table 5 reveals a correlation between employee cost and EVA. Specifically, employee costs have an inverse bearing on EVA; an increase in employee costs results in a decrease in EVA, and vice-versa

Table-6: Year-wise Operating Cost and EVA

Year	Total cost (in Crores)	%Change	EVA (in Crores)	% Change
2008-09	9615.51	-	2938.46	-
2009-10	10694.09	11.21	3124.52	6.33
2010-11	11987.59	12.09	3349.59	7.20
2011-12	14230.22	18.70	7699.28	129.85
2012-13	16317.60	14.66	9264.96	20.33

Table 6 indicates no statistically significant correlation between operating cost and economic value added (EVA). Because the data shows that increases in operating costs do not consistently lead to higher EVA, it highlights a disconnect that challenges conventional cost optimization theories..

Table-7: Year-wise Material Cost and EVA

Year	Material cost (in Crores)	%Change	EVA (in Crores)	% Change
2008-09	6307.79	-	2938.46	-
2009-10	6864.96	08.83	3124.52	6.33
2010-11	7140.69	04.01	3349.59	7.20
2011-12	8601.13	20.45	7699.28	129.85
2012-13	9933.19	15.48	9264.96	20.33

Table 7 demonstrates a strong correlation between material cost and Economic Value Added (EVA). The decrease in material cost during 2010-11 resulted in an increase in EVA, while the increase in material cost during 2011-12 led to a fall in EVA. Therefore, it can be concluded that material cost and EVA are inversely correlated

Table 8 shows no correlation between financial cost and Economic Value Added (EVA). Although financial costs increased during 2010-11, this resulted in only a slight increase in EVA. Therefore, it can be concluded that financial cost and EVA are not correlated.

Table-8: Year-wise Financial Cost and EVA (in Crores)

Year	Interest	Pref. Dividend	Equity Dividend	Total FC	% Change	EVA	% Change
1	2	3	4	5(2+3+4)	6	7	8
2008-09	24.61	-	1319.01	1343.62	-	2938.46	-
2009-10	47.65	-	1396.53	1444.18	07.48	3124.52	6.33
2010-11	90.28	-	3818.18	3908.46	170.63	3349.59	7.20
2011-12	78.11	-	3443.47	3521.58	-09.89	7699.28	129.85
2012-13	87.02	-	3518.29	3605.31	02.37	9264.96	20.33

Hindustan Unilever Ltd

In 1931, Lever Brothers of England set up Hindustan Vanaspati Manufacturing Company, followed by Lever Brothers India Limited (1933) and United Traders Limited (1935). These three companies merged to form HUL in November 1956. HUL offered 10% of its equity to the Indian public, being the first among the foreign subsidiaries to do so. Unilever now holds 52.10% equity in the company. The rest of the shareholding is distributed among about 360,675 individual shareholders and financial institutions. Over a period of time, HUL acquired popular brands in India which

include Broke Bond, Lipton, Pond, etc. The growth process of HUL was accompanied by judicious diversification. The liberalisation of the Indian economy, started in 1991, clearly marked an inflexion in HUL's and the Group's growth curve. Removal of the regulatory framework allowed the company to explore every single product and opportunity segment, without any constraints on production capacity. Today, HUL is a market leader in FMCG sector.

Table-9: Year-wise Employee cost and EVA (in Crores)

Year	Emp. cost	% change	Bet a	Rf %	Rm %	Co C%	NPBT	Tax	NOPA T	CoC	EVA	% Change
1	2	3	5				7	8	9(7-8)			
2008-09	767.81	-	0.018	0.04	0.85	0.05	2184.53	417.14	1767.39	36.98	1730.40	-
2009-10	1152.12	50.05	0.10	0.06	0.15	0.016	3020.86	572.94	2447.92	10.52	2437.39	40.85
2010-11	936.3	-18.73	2.70	0.072	-0.25	-0.91	2806.42	648.36	2158.06	-197.11	2355.17	-3.37
2011-12	961.27	2.66	-7.07	0.09	0.29	-1.46	2882.9	573.87	2309.03	-315.0	2624.10	11.41
2012-13	1095.54	13.96	1.79	0.084	-0.08	-0.31	3469.03	785.28	2683.75	-65.91	2749.66	4.78

Table 9 shows that there is no correlation between employee cost and economic value added. The decrease in employee cost during 2010-11 resulted in a greater fall in EVA. Therefore, it cannot be definitively concluded that employee cost and EVA are strictly correlated based on this isolated observation.

Table-10: Year-wise Operating Cost and EVA

Year	Total cost (in Crores)	%Change	EVA (in Crores)	% Change
2008-09	11966.19	-	1730.40	-
2009-10	17973.67	50.20	2437.39	40.85
2010-11	14990.89	-16.59	2355.17	-3.37
2011-12	17320.50	15.54	2624.10	11.41
2012-13	18662.44	07.74	2749.66	4.78

The data in Table 10 exhibits that operating costs and Economic Value Added (EVA) are positively correlated. During 2010-11, a decrease in operating costs resulted in a corresponding decrease in EVA. Therefore, it can be concluded that operating costs and EVA share a positive relationship.

Table-11: Year-wise Material Cost and EVA

Year	Material cost (in Crores)	%Change	EVA (in Crores)	% Change
2008-09	7542.78	-	1730.40	-
2009-10	11380.05	50.87	2437.39	40.85
2010-11	9003.97	-20.87	2355.17	-3.37
2011-12	10494.33	16.55	2624.10	11.41
2012-13	11701.45	11.50	2749.66	4.78

The table-11 shows that material cost and economic value added are positively correlated with each other. The decrease in material cost during 2010-11 had resulted decrease in EVA. Therefore, it can be concluded that the material cost and EVA are positively correlated with each other.

Table-12: Year-wise Financial Cost and EVA (in Crores)

Year	Interest	Pref. Dividend	Equity Dividend	Total FC	% Change	EVA	% Change
1	2	3	4	5(2+3+4)	6	7	8
2008-09	25.50	-	1976.12	2001.62	-	1730.40	-
2009-10	25.32	-	1634.51	1659.83	-17.07	2437.39	40.85
2010-11	06.98	-	1417.94	1424.92	-14.15	2355.17	-3.37
2011-12	00.24	-	1410.60	1410.84	-00.98	2624.10	11.41
2012-13	01.24	-	1620.94	1622.18	14.97	2749.66	4.78

The above table shows that financial cost and economic value added are positively correlated with each other. The decrease in financial cost during 2010-11 had resulted decrease in EVA. Therefore, it can be concluded that the financial cost and EVA are positively correlated with each other.

Britannia Company

Britannia Company was established in 1892, with an investment of Rs.295. Initially, biscuits were manufactured in a small house in central Kolkata. Later, the enterprise was acquired by Nalin Chandra Gupta, a renowned attorney and operated under the name of "V.S. Brothers". In 1918, C.H. Holmes, an English businessman was taken on as a partner and The Britannia Biscuit Company Limited was launched. The Mumbai factory was set up in 1924 and Peek Freans, UK acquired a controlling interest in Biscuit Company Limited. Biscuits were in big demand during World War II, which gave a boost to the company's sales. The company name was finally changed to the current "Britannia Industries Limited" in 1979. Kerala businessman Rajan Pillai secured control of the group in the late 1980s, becoming known in India as the 'Biscuit King'. Today it is market leader in biscuit segment

Table-13: Year-wise Employee Cost and EVA (in Crores)

Year	Emp. cost	% change	Beta	Rf	Rm	CoC	NPBT	Tax	NOPAT	CoC	EVA	% Change
1	2	3	5				7	8	9(7-8)			
2008-09	90.53	-	-0.16	0.04	0.85	-0.09	232.26	41.26	191	13.72	177.27	-
2009-10	96.02	-6.06	0.075	0.06	0.15	0.01	232.52	52.12	180	8.52	171.47	-3.27
2010-11	99.52	3.64	-1.68	0.07	-0.25	0.53	120.78	4.27	116.51	52.78	63.72	-62.83
2011-12	118.48	19.05	0.026	0.09	0.29	0.02	198.14	40.5	157.64	38.65	118.98	86.70
2012-13	145.87	23.11	-0.05	0.08	-0.08	-0.01	252.37	65.63	186.74	37.71	149.02	25.24

The data in Table 13 indicates a negative correlation between employee cost and Economic Value Added (EVA). The rise in employee costs during the 2010–11 period led to a decline in EVA, suggesting that there is significant potential for cost optimization in employee-related expenses

Table-14: Year-wise Operating Cost and EVA

Year	Total cost (in Crores)	%Change	EVA (in Crores)	% Change
2008-09	2338.49	-	177.27	-
2009-10	2907.66	24.33	171.47	-3.27
2010-11	3218.70	10.69	63.72	-62.83
2011-12	4005.39	24.44	118.98	86.70
2012-13	4699.75	17.33	149.02	25.24

The table-14 shows a positive correlation between operating cost and economic value added; therefore, it can be concluded that there is no scope for cost optimization in this area

Table-15: Year-wise Material Cost and EVA

Year	Material cost (in Crores)	%Change	EVA (in Crores)	% Change
2008-09	1546.74	-	177.27	-
2009-10	1936.66	25.20	171.47	-3.27
2010-11	2197.74	13.48	63.72	-62.83
2011-12	2789.23	26.91	118.98	86.70
2012-13	3193.06	14.47	149.02	25.24

The table -15 exhibits a positive correlation between material cost and economic value added. Therefore, it can be concluded that cost optimization in the area of material costs should remain a primary focus for the company.

The data in Table 16 reveals that financial costs and EVA are positively correlated. Therefore, it can be concluded that the company does have an opportunity for cost optimization in the area of financial costs.

Table-16: Year-wise Financial Cost and EVA (in Crores)

Year	Interest	Pref. Dividend	Equity Dividend	Total FC	% Change	EVA	% Change
1	2	3	4	5(2+3+4)	6	7	8
2008-09	09.73	-	43.00	52.73	-	177.27	-
2009-10	16.01	-	95.56	111.57	111.58	171.47	-3.27
2010-11	08.21	-	59.73	67.94	-39.10	63.72	-62.83
2011-12	40.08	-	77.64	117.72	73.27	118.98	86.70
2012-13	38.07	-	101.53	139.60	18.58	149.02	25.24

Nestle India Ltd.

The Nestle India Ltd. is one of the leading manufacturers of food and beverage in India. Nestle India Ltd was established in the year 1956. The company set up their first production facility in the year 1961 at Moga in Punjab. In the year 1967, they set up their second plant at Choladi in Tamil Nadu as a pilot plant to process the tea grown in the area into soluble tea. In the year 1989, they set up a factory at Nanjangud in Karnataka. In the year 1990, the company

entered into the chocolate business by introducing Nestle Premium Chocolate. In the year 1991.1994- During the year company launched a number of new products viz., Cerelac Soya, Milk maid, Dessert Mixes, Maggo Tonit's Special Cooking Bases, Maggi 1-2-3 noodles, Contodina snack dressing and the chocolate items, milky base marbles and bar one peanut. In 1995, instant noodles factory was constructed and commissioned. During the same year company launched Kit Kat manufactures at new factory at Ponda, Goa. Today, Nestle India Ltd is one of the leading market player in FMCG sector.

Table-17: Year-wise Employee Cost and EVA (in Crores)

Year	Emp. cost	% change	Beta	Rf	Rm	Co C%	NPBT	Tax	NOPAT	COC	EVA	% Change
1	2	3	5				7	8	9(7-8)			
2008-09	314.58	-	0.44	0.04	0.85	0.39	772.83	214.8	558.03	39.20	518.82	-
2009-10	432.38	37.44	0.46	0.06	0.15	0.05	916.98	261.97	655.01	5.96	649.04	25.09
2010-11	433.44	0.24	3.90	0.07	-0.25	-1.31	1145.11	326.45	818.66	-117.34	936.00	44.21
2011-12	546.46	26.07	-0.44	0.09	0.29	-0.07	1387.92	426.38	961.54	19.51	942.02	0.64
2012-13	663.38	21.39	-0.11	0.08	-0.08	0.01	1552.62	484.69	1067.93	27.56	1040.36	10.43

Table 17 shows that the employee cost and EVA of Nestle India are negatively correlated with each other. Therefore, there is ample scope for cost optimization in Nestlé India Ltd.

Table-18: Year-wise Operating Cost and EVA

Year	Total cost (in Crores)	%Change	EVA (in Crores)	% Change
2008-09	3519.78	-	518.82	-
2009-10	4119.44	17.03	649.04	25.09
2010-11	5089.27	23.54	936.00	44.21
2011-12	5993.61	17.76	942.02	0.64
2012-13	6601.21	10.13	1040.36	10.43

Table 18 shows a positive correlation between operating costs and economic value added; however, this does not imply that cost optimization efforts should be abandoned. Continuous cost management remains necessary to ensure that operations generate sustainable value.

Table-19: Year-wise Material Cost and EVA

Year	Material cost (in Crores)	%Change	EVA (in Crores)	% Change
2008-09	2153.85	-	518.82	-
2009-10	2478.94	15.09	649.04	25.09
2010-11	3168.18	27.80	936.00	44.21
2011-12	3671.64	15.89	942.02	0.64
2012-13	3909.06	06.46	1040.36	10.43

Table 19 reveals a positive correlation between material cost and Economic Value Added. However, this does not mean there is no scope for material cost optimization

Table-20: Year-wise Financial Cost and EVA (in Crores)

Year	Interest	Pref. Dividend	Equity Dividend	Total FC	% Change	EVA	% Change
1	2	3	4	5(2+3+4)	6	7	8
2008-09	01.64	-	409.77	411.41	-	518.82	-
2009-10	01.40	-	467.62	469.02	14.00	649.04	25.09
2010-11	01.07	-	467.62	468.69	-00.07	936.00	44.21
2011-12	09.06	-	467.62	476.68	01.70	942.02	0.64
2012-13	26.60	-	467.62	494.22	03.67	1040.36	10.43

Table 20 shows that the financial cost and EVA of Nestlé India are negatively correlated. In the year 2010-11, the financial cost decreased by 0.7 percent, which resulted in a 44.2 percent increase in EVA. Therefore, there is ample scope for cost optimization in Nestlé India Ltd

Conclusions

- 1) The study reveals that Dabur India Ltd. has opportunities for cost optimization, specifically within the material cost center. However, there is no scope for cost optimization in the labor cost center and finance department.
- 2) The study indicates that there is no scope for cost optimization in Hindustan Unilever Limited or Britannia Industries Limited.
- 3) The findings show that there are ample opportunities for cost optimization in ITC Ltd., and the company should explore these options within its employee and material areas.
- 4) The analysis reveals that Nestle India Limited has scope for cost optimization in both the HR and finance departments

Suggestions

1. It is suggested that Dabur India Ltd, ITC Ltd, and Nestle India Ltd use Economic Value Added as a means to measure the outcomes of their adopted cost optimization strategies.
2. In addition to Economic Value Added, these companies should also explore the possibility of using other techniques to measure the benefits of cost optimization strategies, such as environmental value added and the lean and green cost index.
3. HUL and Britannia India Ltd have not yet implemented any cost optimization measures. Therefore, it is recommended that these companies explore developing innovative cost optimization strategies to create value for their shareholders.
4. All of the aforementioned companies should develop a formal cost optimization policy, as none of them have established such a policy to date.

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