Effect of Taxes and Government Laws on Cigarette Industry in India

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ABSTRACT: Taxes and Government Laws in any economy play a huge role on the cigarette industry worldwide and hence this paper is an attempt to analyze the effects of the government policies and literacy rates on the cigarette industry in India. Trend of the industry over the past fifteen years is analyzed and the effect of government policies of 2003, 2008 and 2013 is studied using the benchmark analysis via comparison with industrial average. DuPont 5 point ratios are being used to compare the companies with the market trends. Also Regression analysis has been performed to comprehend the relative impact of all the five DuPont ratios on return on equity. The study shows that the policies of 2008 and 2013 has helped the government of India to generate more revenue, resulting in the rise in cigarette prices and hence reduced relative consumption. The policies of 2003 resulted in reduced shareholder’s equity and as the tax increased in the next decade the tax burden ratio also decreased in 2008 and 2013. The study also shows that the operating profit ratio has decreased as the profit to the company has reduced in comparison to the sales made. As per the normal convention, with increase in literacy rates, the sales of the cigarette industry should decline, however we found out that the sales of cigarettes has increased with time at almost the same rates which has been proved via DuPont ratios.

KEYWORDS: Finance, Ratios, Du-pont, Cigarette Industry, Government laws

1. INTRODUCTION

The cigarette industry is one of the biggest in the world. With an estimated revenue of half a trillion dollar every year, if we consider it a country, the GDP will be comparable to that of oil giants Saudi Arabia, European countries like Sweden and Poland. 81% of the total world’s market is controlled by the 6 major cigarette firms, namely China Tobacco Corporation, Philip Morris International, British American Tobacco, Japan Tobacco International, Imperial Tobacco, and Altria group. Cigarette companies play a major role in the Indian economy too and roughly have a share of 90% in the market - ITC, Godfrey Philips India, Golden Tobacco, being the prominent leaders in this sector.

Financial reviews of a firm can be analyzed by various methods. Different ratios are being calculated using balance sheets and profit & loss statements. DuPont ratios is one of the advanced and unexplored options of calculating return on equity using a set of five ratios. The decisions that incorporate the management of firm’s operating liabilities (accruals and accounts payable) and operating assets (mostly accounts receivable and inventories) and the disposal and procurement of fixed assets are referred as company’s operating decisions. These are reflected in the first two ratios-

1. Operating profit margin: (Earnings before Interest Taxes or EBIT / sales)
2. Capital turnover: (sales / invested capital)

The decisions that regulate the mix of equity and debt utilized to fund the company’s operating decisions are referred as
firm’s financing decisions. These are reflected in the third and fourth ratios of the five-step DuPont model. These are:

3. Financial cost ratio: (Earnings before Taxes or EBT / EBIT)
4. Financial structure ratio: (invested capital / equity)
5. The last factor of a company’s ROE takes into consideration the effect of business taxation. The return on equity ROE is inversely proportional to the tax rate on company’s earnings before taxes (EBT). This is reflected in the fifth ratio of the five-step DuPont model- Tax effect ratio: (Earnings After Taxes or EAT / EBT)

2. LITERATURE REVIEW

2.1 LEADING COMPANIES IN INDIAN CIGARETTE SECTOR

2.1.1 ITC:
ITC is the market leader in cigarettes in India. With its wide range of invaluable brands, ITC has a leadership position in every segment of the market. ITC’s highly popular portfolio of brands includes Insignia, India Kings, Lucky Strike, Classic, Gold Flake, Navy Cut, Players, Scissors, Capstan, Berkeley, Bristol, Flake, Silk Cut, Duke & Royal.

2.1.2 Godfrey Phillips India:
Godfrey Phillips India, one of the renowned companies of India, is into diversified businesses of tea, tobacco and pan masala. The Company manufactures some of the most popular cigarette brands in the country like FS1, Four Square, Red and White, Cavanders, Tipper and North Pole. Godfrey Phillips India is known for its innovations. The company has created popular products like Stellar, India’s first slim cigarette and ‘i-gen’ a king-size cigarette, the first in India to confirm to EU norms of 10-1-10 in their kitty.

2.1.3 Golden Tobacco:
Golden Tobacco Limited is a professionally managed organization in the field of tobacco and tobacco related products. Established in the year 1930 by the late Shri. Narsee Monjee, Golden Tobacco is the first wholly owned indigenous company in the country, taken over by Dalmia Group in the year 1979. The group is headed by Mr. Sanjay Dalmia as Chairman & Mr. Anurag Dalmia as Vice Chairman. Name of cigarette Brands are Panama, Taj Chhap, Chancellor, Style, June, Just Black etc.

2.1.4 NTC Industries:
The Company was incorporated with the main object of real estate development. The Company took over business of the firm M/s. R.D.BUILDERS’as a going concern with effect from the close of 30th April, 1992. The Company has constructed various buildings in and around Calcutta. In April, 1994, the Company had taken over the assets of New Tobacco Company on lease in terms of the Hon’ble Calcutta High Court order dated 23rd February, 1994. The Company has started commercial production on May 31st, 1994 at Agarpara, West Bengal factory and launched brands of Cigarettes namely REGENT, NUMBER TEN FILTER, NUMBER TEN VIRGINIA, COOL, PRINCE HENRY (Pipe Tobacco), and REGENT MINI KINGS.

2.1.5 VST Industries:
Manufacturer, Exporters & Importers of Cigarettes, Tobacco Products and Un-manufactured tobacco. The Company has a manufacturing facility at Hyderabad (A.P).

2.2 RULES AND REGULATIONS IN INDIA

2003: The Cigarettes and Other Tobacco Products Act, 2003 or COTPA is an Act to prohibit the advertisement of, and to provide for the regulation of trade and commerce in, and production, supply and distribution of, cigarettes and other tobacco products and for matters connected therewith or incidental thereto.

Under this act:

- Smoking in open areas is prohibited.
- Advertisement of tobacco products including cigarettes is prohibited.
- No cigarette or any other tobacco product can be sold to person below the age of 18 years.
• Packets of cigarette should have pictorial warning showing Smoking is dangerous or Smoking kills etc.

2008:
• Smoking in workplace, restaurants, pubs, public transport, educational institute, café theatre and other public places was prohibited nationwide from 2 October 2008 under the Prohibition of Smoking in Public Places Rules, 2008 and COTPA.
• Tax rates were increased.

2013:
• Significant increase in custom duty and tax rates were observed.

Impacts of these regulations has been discussed in following ratio analysis and all the conclusions were drawn on the basis of these ratios.

3. RESEARCH METHODOLOGY

3.1 MARKET SHARE

Cigarette companies in India that roughly have a share of 90% in the market are ITC, Godfrey Philips India, Golden Tobacco, NTC industries, VST industries, Kothari products with the market share of 72, 12, 7, 7, 1% respectively.

![Market Share Chart](image_url)

Fig. 1. Market share of Cigarette sector

Government plays an important role in the sales of the cigarettes, which could be seen through the ratios affected by the reforms of 2003, 2008 and 2013. Government increased excise duties in 2008 and 2013 and banned the advertisements in 2003. The effects of all these reforms have been explained in detail.
3.2 RATIO ANALYSIS

3.2.1 INDIAN TOBACCO COMPANY:

Fig. 2. Year wise analysis of different ratios for ITC

Effects of 2003 reforms: Equity multiplier ratio (assets/equity) decreases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) increases, Tax burden ratio (eat/ebt) increases and the return on equity decreases.

Effects of 2008 reforms: Equity multiplier ratio (assets/equity) decreases, Asset turnover ratio (sales/assets) increases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) decreases, Tax burden ratio (eat/ebt) decreases and the return on equity decreases.

Effects of 2013 reforms: Equity multiplier ratio (assets/equity) increases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) increases, Interest burden ratio (ebt/ebit) increases, Tax burden ratio (eat/ebt) decreases and the return on equity decreases.

3.2.2 GODFREY PHILIPS:

Fig. 3. Year wise analysis of all ratios for Godfrey Philips
Effects of 2003 reforms: Equity multiplier ratio (assets/equity) increases, Asset turnover ratio (sales/assets) increases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) decreases, Tax burden ratio (eat/ebt) increases and the return on equity decreases.

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3.2.3 VST:

Fig. 4. Year wise analysis of different ratios for VST

Effects of 2003 reforms: Equity multiplier ratio (assets/equity) decreases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) increases, Interest burden ratio (ebt/ebit) increases, Tax burden ratio (eat/ebt) decreases and the return on equity decreases.

Effects of 2008 reforms: Equity multiplier ratio (assets/equity) almost same, Asset turnover ratio (sales/assets) almost same, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) almost same, Tax burden ratio (eat/ebt) increases and the return on equity decreases.

Effects of 2013 reforms: Equity multiplier ratio (assets/equity) increases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) almost same, Tax burden ratio (eat/ebt) decreases and the return on equity decreases.
3.2.4 GOLDEN TOBACCO:

**Fig. 5. Year wise analysis of all ratios for Golden Tobacco**

**Effects of 2003 reforms:** Equity multiplier ratio (assets/equity) decreases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) increases, Interest burden ratio (ebt/ebit) increases, Tax burden ratio (eat/ebt) increases and the return on equity decreases.

**Effects of 2008 reform:** Equity multiplier ratio (assets/equity) increases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) decreases, Tax burden ratio (eat/ebt) decreases and the return on equity decreases.

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3.2.5 NTC:

**Fig. 6. Year wise analysis of different ratios for NTC**

**Effects of 2003 reforms:** Equity multiplier ratio (assets/equity) increases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) decreases, Tax burden ratio (eat/ebt) decreases and the return on equity decreases.
Effects of 2008 reforms: Equity multiplier ratio (assets/equity) increases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) decreases, Tax burden ratio (eat/ebt) increases and the return on equity decreases.

Effects of 2013 reforms: Equity multiplier ratio (assets/equity) decreases, Asset turnover ratio (sales/assets) increases, operating profit ratio (ebit/sales) increases, Interest burden ratio (ebt/ebit) increases, Tax burden ratio (eat/ebt) decreases and the return on equity increases.

3.2.6 Kothari:

Fig. 7. Year wise analysis of different ratios for Kothari

Effects of 2003 reforms: Equity multiplier ratio (assets/equity) almost same, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) increases, Tax burden ratio (eat/ebt) decreases and the return on equity decreases.

Effects of 2008 reforms: Equity multiplier ratio (assets/equity) decreases, Asset turnover ratio (sales/assets) decreases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) decreases, Tax burden ratio (eat/ebt) increases and the return on equity decreases.

Effects of 2013 reforms: Equity multiplier ratio (assets/equity) decreases, Asset turnover ratio (sales/assets) increases, operating profit ratio (ebit/sales) decreases, Interest burden ratio (ebt/ebit) decreases, Tax burden ratio (eat/ebt) decreases and the return on equity decreases.

3.3 TRENDS IN THE RATIOS AND THE SIGNIFICANCE

The return on equity decreases on all the 3 occasions for all the firms. It shows that these government reforms have a negative impact on the industry and reduce the efficiency of the companies. The study shows that the policies of 2008 and 2013 has helped the government of India to generate more revenue, resulting in the rise in cigarette prices and hence reduced relative consumption. The policies of 2003 resulted in reduced shareholder’s equity and as the tax increased in the next decade the tax burden ratio also decreased in 2008 and 2013. Also, the return on equity decreased on each of these occasions. Asset turnover ratio decreased in most of the cases which shows that the company fails to utilize its resources with increase in government interference. The study also shows that the operating profit ratio has decreased as the profit to the company has reduced in comparison to the sales made. As per the normal convention, with increase in literacy rates, the sales of the cigarette industry should decline, however we found out that the sales of cigarettes has increased with time at almost the same rates which has been proved via DuPont ratios. It basically shows that the effects of 2003 policies which involved the cigarette advertisement ban has been negligible, cigarette industry being a matured industry could be one of the reason for that.
Cigarettes volume sales fell by 1% to 100.9 billion sticks in 2013. This decline was mainly due to the growth of illicit cigarette trade and increases in VAT by state governments across India. However, the increased taxes and rise in retail prices led to retail value growth of 12% in 2013.

3.4 Regression Analysis

\[ ROE = \alpha + \beta_1 (OPM) + \beta_2 (CT) + \beta_3 (FCR) + \beta_4 (FSR) + \beta_5 (TER) + \gamma \]

Where, \( \alpha \) is a constant

\( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \) are standardized coefficients

\( \gamma \) is the estimate error
All the Fig 8.1 to 8.5 demonstrates the regression analysis of the five ratios of Du Pont principle.

The final equation is:

\[ \text{ROE} = \alpha - 85.67 \times (\text{OPM}) + 3.563 \times (\text{CT}) - 1.1429 \times (\text{FCR}) + 0.28 \times (\text{FSR}) - 9.32 \times (\text{TER}) + \gamma \]

3.5 Relation with Literacy Rate

As thought the consumption of cigarette should decrease with increased literacy rate but the trend is proportional. There is no decrement in consumption even if people became well acknowledged of all the harmful effects because addicted customers can’t leave even after knowing harmful effects. Smoking has a lot of symbolic and emotional values attached along with being status symbol. Low switching costs in terms of price is also a pro for increasing options. One more reason is lack of no close alternative. Herbal Cigarette and nicotin patches had done no harm to cigarette because it had acquired a status symbol. To show off one more advanced technology evolved id E-cigarette.
4. CONCLUSION

4.1 ROLE OF GOVERNMENT:

The effects of increase in taxes are clearly visible in the ratios. Increase in taxes can save a lot of lives. But, still they are not being raised so much as they offer a lot of revenues to the government. They have raised the excise duties, but there's room for improvement. In India, with a tax rate increase from 38% to 50%, the Indian government would gain Rs.11 billion, and consumption of cigarettes would be reduced by 8 billion sticks (John et al.2009a).

4.2 CIGARETTE INDUSTRY:

With only 12% cigarette share in the tobacco industry, there is a lot of scope for the industry but these taxes and government policies pose an entry barrier. What the companies are doing against these taxes: Companies had come up with innovative ways of seeking out of claws of taxes and one of them is selling smaller sticks. On smaller sticks company have to pay less tax and collect same revenue. One of the reason of high potential is low bargaining power of buyers.

4.3 ADVERTISEMENT BAN:

Cigarette manufacturers in India have already agreed to evolve and adopt a voluntary code. In the interests of consumers, given the fact that many adults do make personal choices, in favour or otherwise of tobacco use, and only about 12% of tobacco users smoke cigarettes, there is a strong case to adopt a voluntary industry code towards advertising rather than resort to legislation.

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