Corporate Leverage and Financial Decision in the Indian Textile Industry

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In the presence of market imperfections, leverage has the potential to have an important influence on investment decisions. If a firm makes money on its borrowing (has favorable financial leverage), the shareholders realize higher earnings per share (EPS) than would be the case in the absence of debt, as the debt-equity ratio (DER) is a long term risk measure. In the present study 25 textile firms, which are listed in Bombay Stock Exchange are taken as a sample for the study period from 2004 to 2008. The study reveals that the firms i. e. ACM, AFL, ASL, BASML, BCIL, GSM, GDPM and GJML show significant growth rate in financial, operating and combined leverage.

Key Words: capital structure, financial leverage, operating leverage, corporate leverage, financial decision, debt equity ratio
JEL *Classification:* G30, G32, G35

Introduction

Financial Decision (FD) plays a crucial role in the survival of a firm. Business decisions of the firms in general and strategies in particular are molded by the business environment. Every businessman has to face tough competitions, uncertainty and risk prevailing in the trade. External factors like the economic, political/regulatory, social, demographic, technological and natural factors which make up the opportunities for and threats to business, and internal factors like the resources, capabilities and goodwill of the organization, internal power relationships etc., which decide the strength and weakness of the firm. The firm's capital structure (CS), which is the mix of debt and equity is considered to be optimum when the market value of the share is maximized. When the shareholders' return is maximized with minimum risk the market value

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per share will be maximized and the firm's cs would be considered optimum. Once the financial manager is able to determine the best combination of debt and equity, he must generate the appropriate capital through the best available sources. Hence, debt equity ratio (der) is determined to ascertain soundness of the long-term financial policies of the firm.

corporate leverage (col)

In the presence of market imperfections, leverage has the potential to have an important influence on investment decisions. Jensen (1986; 1989) argues that leverage limits managerial discretion over free cash flow and lowers the likelihood that resources are expended for negative net present value investments. In business parlance, *leverage* refers to the relationship between percentage of business changes in fixed cost and in earnings before interest and taxes (ebit) i. e. *operating profit* (op). In other words, leverage results from the use of fixed cost assets or funds to magnify returns to firm's owners. It is the employment of an asset or source of finance for which the firm pays fixed cost or fixed return. Leverage may be of three kinds: i. e. *financial leverage* (fl); *operating leverage* (ol); and *combined or composite leverage* (cl).

fl reflects the fds of the firm. It refers to the use of funds obtained by fixed cost or fixed return securities such as debentures, bonds, preference shares etc. in the hope of increasing the return to equity shareholders. *Favorable or positive leverage* is said to occur when the firm uses funds obtained at fixed cost to earn more than the fixed financing costs paid. *Unfavorable or negative leverage* occurs when the firm does not earn as much as the fixed financing costs.

If a firm is making money on its borrowing (*has favorable* fl), the shareholders are realizing higher earnings per share (eps) than would be the case in the absence of debt. ol occurs where a firm has fixed cost that must be met regardless of the volume or value of sales. With fixed cost, the percentage change in operating profit affirming a change in sales is greater than that of the percentage change in sales. In business terminology a high degree of ol, other factors held constant, implies that a relatively small change in sales results in a large change in ebit. The degree of ol depends upon the amount of fixed elements in the cost structure, and it is the function of three factors, i. e. the *fixed cost, the variable contribution margin, and the volume of sales.* ol and fl combine them in a multiplicative form to bring about a more proportionate change in eps for a given percentage change in activity. This is because the dispersion

and risk of possible EPS are increased. With the presence of fixed operating costs and fixed financing costs, a given change in sales is translated into a larger relative change in EPS through a two step magnification process.

Literature Review

Prior empirical research on leverage shows that leverage can constrain investment (Lang, Ofek, and Stulz 1996; Denis and Denis 1993). Merton (1974) suggested for highly leveraged firms, contingent claims. He predicted that almost all firms' value is in the hands of the debt holders. A small increase in cash reserves goes largely to increase the value of debt (and not equity value) and implies that the probability of bankruptcy decreases. Jensen and Meckling (1976) proposed that managerial ownership reduces their incentives to engage in non-optimal behavior. Firms with higher investment in intangible assets tend to use less debt in their cs to reduce the agency costs associated with risky debt (Myers 1977). For low-growth firms, this means that growth adds value to the firm, which increases borrowing capacity. Operating fixed costs (in effect a capacity constraint) could have an impact on the choice of FL (Huffman 1983). Mandelker and Rhee (1984) found a positive relationship between both degree of financial leverage (DFL), degree of operating leverage (DOL) and systematic risk (SR).

Later, Huffman (1989) replicated the study of Mandelker and Rhee and also found a consistent positive relationship between SR and DFL. Mandelker and Rhee and Huffman both tested to determine whether firms traded off the amount of total leverage which they faced by substituting one type of leverage for the other, and found evidence that firms with low levels of DFL tend to have higher levels of DOL and vice-versa. However, Huffman was, again, unable to re-confirm their findings with confidence. Mandelker and Rhee found no statistically significant relationships between the measures of leverage and the risk measures (only the correlation between DOL and SR was significant).

Information asymmetry induces the pecking order of FDS (Myers, Majluf and Nicholas (1984)). Stulz (1988) argued that when leverage is increased because of the firm's buying out other (passive) shareholders, the percentage of non-insider shares that an acquirer would need to purchase increases. Gordon and Mackie-Mason (1990) found that, after two years from the reform, the 1986 Tax Reform Act (TRA) produced a lower effect on the DER than that predicted by a theoretical model of immediate full

adjustment. Li and Henderson (1991) tested for the impact of both DOL and DFL on total risk. Similar to their result for SR, they found a significant positive relationship between total risk and DOL, but could not confirm a statistically significant relationship in the case of DFL. They also found a positive relationship between DFL and SR using the time-series estimates of degree of leverage measures suggested by O'Brien. However, they could not confirm that the inter-relationship between the two types of leverage had any influence on SR. Choe (1991) tested the proposition that substitution of short-term debt (STD) for long-term debt (LTD) increases the expected returns of common stocks.

Ang (1992) argued that the relationship between size and leverage is rather complex, and enough reasons can be found to justify both lower or higher leverage in (privately held) small firms when compared with larger firms. Indeed, empirical evidence does not provide support for a clear and monotone relationship between size and leverage, although small firms generally show higher leverage ratios and make greater use of short-term financing than the larger firms. Whited (1992) found that firms with high leverage display a higher sensitivity of investment to cash flow. John (1993) presented evidence for firm-level determinants of cash holdings, indicating that firms with higher costs of financial distress and higher cash flow volatility hold significantly more cash, while firms with higher leverage, higher growth rates, a longer cash conversion cycle, and more tangible assets hold less cash. Raad and Wu (1994) found that stockholders of mergers financed with stocks suffer significant losses.

Vogt (1994) found that the relationship between cash flows and investment spending differs significantly between small and large firms. Smaller growth firms conform more to the pecking order behavior. Rajan and Zingales (1995) found that there is a significant relationship between firms' leverage and variables measuring firms' size, asset tangibility, profitability and growth prospects, and that their relationships to leverage are broadly similar in each of the seven countries despite their institutional differences. Lord (1996) inferred that DOL, the ratio of net profits to firm value, and the variability of unit output are all found to be positively correlated with each of the three risk measures. The DFL, while positively related to total and unsystematic risk (UR), does not appear to be related to SR. Honohan (1997) advocated 'speed limits' to restrict the rate of growth of banks' loan portfolios. Kim, Mauer and Sherman (1998) inferred that cash holdings increase with a higher market-to-book

ratio and higher cash flow volatility, revealing that cash holdings decrease with firm size, leverage, the length of the cash conversion cycle, and the probability of financial distress.

Parrino and Weisbach (1999) found that the agency costs of debt can be so high that firms cannot raise funds and therefore forego profitable investment projects. Mahajan (1999) found three possible reasons for the decline in stockholders' wealth: changes in earnings, changes in beta, and changes in variance of earnings after the announcements. Opler et al. (1999) suggested that firms with low debt levels tend to hold more cash because a low leverage ratio makes the firm less subject to market monitoring. Gelb (2000) found that firms with lower levels of managerial ownership tend to provide more extensive disclosures in their annual reports, which suggests that managerial ownership mitigates agency costs and reduces investors' information needs.

Gelb and Siegel (2000) found that firms with high levels of intangible assets are more likely to emphasize dividend increase and stock repurchase (which are generally perceived as signaling favorable investment opportunities), instead of traditional accounting disclosures, as a means of overcoming adverse selection. Chen, Chen and Su (2001) found that the management in Chinese listed firms always manipulates the accounting profit in order to cater to the return on equity (ROE) requirement made by the Chinese Securities Regulatory Commission (CSRC); the ROE is easier to be twisted by earning management. Benito and Whitley (2003) found evidence that the external finance premium postulated by the 'pecking order hypothesis' has a non-linear relation with firms' capital leverage, where changes in leverage only affect the premium at high levels of leverage.

Olafsson (2003) pointed out that even when cash flows received in the future are assumed to be stochastic, resulting in a distribution for the NPV instead of a single number, the resulting framework does not provide a basis for a decision-making tool as no assumptions have been made on attitudes to risk. Iona, Leonida and Ozkan (2004) treated a firm as financially conservative if it has both low leverage and high cash reserves at the same time; they suggested that managerial ownership, board composition, and to some extent, ownership concentration influence the likelihood of firms to adopt a conservative financial policy. Faulkender (2004) reported that the determinants of cash holdings are somewhat different; small firms tend to hold more cash as their leverage increases, possibly because they have limited access to the CM.

Faccio, Lang and Young (2004) provided empirical evidence that in Europe, where the monitoring role of debt is effective due to the established and enforced capital market institutions, entrenched managers decrease leverage; in contrast, in Asia, where the monitoring role of debt is less effective than in Europe, entrenched managers abuse debt. Ferreira and Vilela (2004) reported that cash holdings are positively affected by growth opportunities and cash flows, whereas asset liquidity, leverage, bank debt, and firm size negatively impact cash holdings. Kytonen (2005) and Kim, Mauer and Sherman (2005) found that the funds allocation in the firms, where controlling shareholders have high cash flow rights are better aligned with the investment opportunities and, therefore, more efficient than in the firms where they have low cash flow rights. Francis, Khurana and Pereira (2005) found that firms with a greater external financing need to have higher voluntary disclosure levels. They also document that these firms benefit from higher voluntary disclosure by having lower cost of both debt and equity capital (EC).

Leary and Roberts (2005) found that firms are more likely to increase (decrease) leverage if their leverage is relatively low (high), if their leverage has been decreasing (accumulating), and if they have recently decreased (increased) their leverage through past FDs. Saibal (2005) suggested that the leverage ratio can serve as a useful signpost of asset quality and second, the analysis points to the need to improve the collection of data from the corporate sector.

Ruland and Zhou (2005) revealed a strong positive association between leverage and the values of diversified firms. The values of specialized firms do not increase with leverage. Faulkender and Wang (2006) inferred that the average marginal value of cash across all firms declines with larger cash holdings, and higher leverage. Moon and Tandon (2007) found that the association between equity ownership and leverage is significant for low-growth firms, but not for high-growth firms. Li and Tang (2007) found that low FL actually improves the profitability, stock expansion ability and market value of listed firms; however, as an important capital resource for the existence and development of a firm, FL also has a positive influence on the firm when increasing the debt to a certain degree, revealing that large scale firms perform better on their profitability, the stock expansion ability, operational efficiency, financial elasticity and safety, while their market value is lower. Drobetz and Gruninger (2007) found that the market to book ratio is a proxy for both growth opportunities and/or the importance of adverse selection costs, leading to

competing hypotheses in a pecking order framework. Jugurnath, Stewart and Brooks (2008) provided evidence that DER was positive and significant in the US only; they also provided evidence that FL influences CCI in the US.

The overall effect of leverage recapitalizations is to improve firm's value, as supported by the prior literature. However, the evidence also points to a straightforward indirect cost of FL that has received relatively little attention in the literature. High leverage generates interest payments that may be high relative to current levels of cash flow. When managers face substantial personal costs of financial distress, this can create incentives to emphasize investments that maximize the cash flow of the firm, possibly at the expense of undertaking investments with the highest net present value. This effect of high leverage is likely to influence the divisional allocation of investment within a firm. The estimates suggest that the increase in firm's value around the recapitalization would be larger in the absence of such changes in divisional allocation. In this regard, the study adds to a wide literature emphasizing the indirect costs of debt financing.

Objectives and Hypotheses Development

STATEMENT OF THE PROBLEMS

FD making is primarily concerned with developing the skills needed to make the FDs required in a rapidly changing corporate business environment. If the overall level of business activity is rising, most firms will need more money to expand their operations. The need for additional long-term funds will bring a firm to the money markets for either debt or equity funds. On the other hand, a decline in business activity may allow a firm to cut back its operations and use its cash to retire debt or equity securities.

Therefore, the present study mainly analyses how far the level of corporate leverage (COL) affects the FD making in the Textile industry in India. The debt equity ratio (DER) is employed, which is the most common indicator of COL. In effect, this ratio signifies how much business is financed through debt vis-à-vis equity. A very high leverage ratio implies greater risk to present or future investors.

SIGNIFICANCE AND SCOPE OF THE STUDY

Though many research studies have been undertaken in the field of COL and FDs, only very few studies have been undertaken to analyze the im-

pact of COL on FD. Therefore, the present study attempts to analyze the impact of COL on FD in the textile industry in India. The scope of the study is limited to the area of consumer textiles and industrial textiles only. The study comprises an attempt to provide an empirical support to the conjectured impact of leverage on FD.

RESEARCH QUESTIONS

The present study is proposed to seek answers to the following stated questions:

- What is the significance of various leverages and FDs?
- Is there a degree of relation between FL and FDs?
- How far are the leverage and FDs inter-related?
- How do the profitability and liquidity ratio influence the FD?

OBJECTIVES AND HYPOTHESES OF THE STUDY

The following are the objectives and hypotheses of the study:

- To analyze the impact of sales on EBIT on selected textile firms in India.
- To study the variance ratios of investment and borrowings as well as net worth and borrowings of selected textile firms in India.
- To study the various ratios of net worth and corporate leverage as well as net worth and financial leverage.
- To associate the FL with the FD with respect to the progress of the firm.

H_0^1 *There is no significant relationship between the sales and* EBIT *as well as the derived correlation coefficient from sales and* EBIT *with effect to leverage.*

H_0^2 *There is no significant relationship between the investment and borrowings with respect to leverages as well as FDs.*

H_0^3 *There is no significant relationship between the net worth and borrowings with respect to leverages as well as FDs.*

H_0^4 *There is no significant relationship between the net worth and combined leverage with respect to FDs.*

H_0^5 *There is no significant relationship between the net worth and FL with respect to FDs.*

Methodology

SOURCES OF DATA

The study used only secondary data, which are collected from the CMIE prowess (package). The data collected from this source have been compiled and used with due care as per the requirements of the study.

SAMPLING DESIGN

In the present study, 25 textile firms are chosen randomly from the listed firms in Bombay Stock Exchange based on the adequacy of data for the study period i. e. from 2004–2008. The firms chosen are the mixture of *small, medium* and *large* in sizes based on their capital.

TOOLS FOR ANALYSIS OF DATA

To analyze the data, statistical tools that have been used are correlation and regression methods to ascertain the best fitted model for making FDS.

Regression Analysis

1. The regression equation of X on Y is

$$X - \overline{X} = r\frac{\sigma_x}{\sigma_y}(Y - \overline{Y}),$$

$$r\frac{\sigma_x}{\sigma_y} = \frac{\sum xy}{\sqrt{\sum y^2}},$$

where $\overline{X}$ is the mean of X series, $\overline{Y}$ is the mean of Y series, and $r(\sigma_x/\sigma_y)$ is known as the regression co-efficient of X on Y.

2. Regression Equation of Y on X:

$$Y - \overline{Y} = r\frac{\sigma_y}{\sigma_x}(X - \overline{X}),$$

$$r\frac{\sigma_y}{\sigma_x} = \frac{\sum xy}{\sqrt{\sum x^2}},$$

where $r(\sigma_y/\sigma_x)$ is known as the regression co-efficient of Y on X.

Considered the COL as independent variable; FD as dependent variable, keeping other control variables constant.

PERIOD OF THE STUDY AND LIMITATIONS

Period of the Study

The data used for the analysis relate to the selected textile firms for the period of 5 years on a yearly basis ranging from 2004 to 2008.

Limitations

- The study is limited to 5 years' data only; therefore a detailed trend covering a lengthy period is not possible.
- The study is based on secondary data, which are collected from the CMIE Prowess (package), hence the quality of the study depends purely upon the accuracy, reliability and quality of the secondary data.
- The study is confined to only 25 firms of the textile industry, which are listed in Bombay Stock Exchange (BSE).

SIGNIFICANCE OF THE TEXTILE INDUSTRY IN INDIA

The Indian textile industry is estimated to be around USD 52 billion and is likely to reach USD 115 billion by 2012. The domestic market is likely to increase from USD 34.6 billion to USD 60 billion by 2012. It is expected that India's share of exports to the world would also increase from the current four per cent to around seven per cent during this period. India has overtaken the US to become the world's 2nd largest cotton producing country, after China, as per a study by International Service for the Acquisition of Agra-biotech Application. India is the largest exporter of yarn in the international market and has a share of 25 per cent in world cotton yarn exports and accounts for 12 per cent of the world's production of textile fibers and yarn. The country (India) has the highest loom capacity, including handlooms, with a share of 61 per cent in world loom age. India is the largest producer of jute in the world. It is the second largest producer of silk and the only country to produce all four varieties of silk – Mulberry, Tsar, Ere and Muga. The primary contribution of the Textile Industry is export earnings for the country; the textile industry occupies 16% of the country's export earning. Industrial output sums up to 14% of total industrial production and contributes to approximately 30% of total export products. In an effort to increase India's share in the world textile market, the Government of India has introduced a number of progressive steps.

The Indian textile industry is striving to realize its full potential and face the emerging challenges of globalization and liberalization. Thus leveraging firms lead to borrowing, which leads to debt. The DER is a long run risk measure. Debt to equity compares debt to the owner's investment in the business. An increase in the debt-equity ratio increases the firm's FL, because this makes additional debt financing available.

TABLE 1   FL of Textile Firms for the period 2004–2008

No.	Name of the Firm	2004	2005	2006	2007	2008
1.	Aditya Mills Ltd.	1.11	1	1	1	1
2.	Alka India Ltd.	1.03	6.78	1	1	1
3.	Ambika Cotton Mills Ltd.	1.39	1.30	1.31	1.89	1.58
4.	Anjani Fabrics Ltd.	1.46	1.39	1.20	1.70	1.53
5.	Arasan Syntex Ltd.	2.86	3.22	5.04	1.91	2.14
6.	Arunoday Mills Ltd.	0.33	0.39	0.26	1	0.98
7.	Asia Pack Ltd.	1	1	1	1	1.02
8.	Bannari Amman Spinning Mills Ltd.	1.08	1.04	1.10	1.28	1.57
9.	Birla Cotsyn India Ltd.	2	3.67	1.34	1.08	1.18
10.	Blue Blends (India) Ltd.	−0.45	1.04	1.01	2.47	0.58
11.	Bombay Dyeing & Mfg. Co. Ltd.	1.34	1.41	0.86	1.64	0.49
12.	Coimbatore Pioneer Mills Ltd.	0.78	0.48	0.11	1.01	0.69
13.	Damodar Threads Ltd.	1.32	1.37	1.23	1.18	2.10
14.	East India Commercial Co. Ltd.	2.67	1.46	1.19	1.17	1.21
15.	Futura Polyesters Ltd.	11.87	3.62	0.98	2.10	2.21
16.	Garden Silk Mills Ltd.	1.39	3.85	2.55	2.10	1.93
17.	Gemini Dyeing & Printing Mills Ltd.	5.71	1.91	1.48	1.51	1.94
18.	Gloster Jute Mills Ltd.	1.31	1.37	1.49	1.65	1.18
19.	Indo Rama Synthetics (India) Ltd	1.18	1.33	1.36	1.97	12.94
20.	Jindal Texofab Ltd.	1.39	1.49	0.54	3.37	5.70
21.	Modern Threads (India) Ltd.	0.37	0.86	0.77	1.13	−0.79
22.	Orient Craft Ltd.	1.14	1.41	1.41	1.49	2.12
23.	Pondicherry Spinners Ltd.	0.28	1	0.93	1	1
24.	Provogue (India) Ltd.	1.23	1.19	1.18	1.19	1.42
25.	Veejay Lakshmi Textiles Ltd.	1.29	1.14	1.14	1.41	0.63

Firms with high debt ratios pay lower dividends, because they have already committed their cash flows to make debt payments. The present study is intended to analyze how far the leverage has impact on the FDs, and to study the relationship between the firm's FL and FD.

Industry Analysis and Discussion

The principal focus of the study is to analyze the effect of leverages and ratios which help the (selected 25 textile firms) textile industry in India to

take significant decisions in risky situations. The secondary data relating to various facets of growth were analyzed with the use of appropriate statistical tools. The results of the analysis are presented and interpreted in the following paragraphs:

The calculated value of F is compared with the table values for v_1 and v_1 at 5% and 1% level of significances. If the calculated values of F are greater than the table values then the F ratio is significant, and H_0 is rejected. On the other hand, if the calculated values of F are lower than the table values the null hypothesis is accepted.

FINANCIAL LEVERAGE OF TEXTILE FIRMS

The FL is employed in the hope of increasing the return to common shareholders and is used to measure the solvency of the firm and the ability of a firm in order to test whether the firm can regularly pay interest against long-term borrowings. Table 1 shows the FL of 25 selected firms in India for the study period from 2004 to 2008. The firms, viz., Blue Blends ltd in 2004, Bombay Dyeing Ltd., in 2006, 2007, 2008, Coimbatore Pioneer Mills Ltd in 2006, Futura Polyesters Ltd in 2004 and 2006, Modern Threads India Ltd in 2006 and 2008 all show negative FL. This indicates that they might have faced loss; however, these firms have shown a positive FL for the remaining years of study. This reveals that these firms have earned more than the financial commitment such as interest on borrowings they had in those years. The FL is exactly one for Aditya Mills Ltd from 2005 to 2008, Alka India Ltd from 2006 to 2008, Arunoday Mills Ltd in 2007, Asia Pack Ltd in 2004 to 2007, Pondicherry Spinners Ltd in 2005, 2007 and 2008, which shows that these firms have shown a nil liability in respect of interest.

Firms i. e. Alka India in 2005 (6.78), Arasan in 2004 (2.86), 2005 (3.22), 2006 (5.04), 2008 (2.14), Birla in 2004 (2), 2005 (3.67), Blue in 2007 (2.47), Damodar in 2008 (2.10), East India in 2004 (2.67), Futura in 2005 (3.62), 2007(2.1), 2008 (2.21), Garden 2005 (3.85), 2006 (2.55), 2007 (2.10), Gemini in 2004 (5.71), Indo Rama in 2008 (12.94), Jindal in 2007 (3.37), 2008 (5.7), and Orient 2008 (2.12) show a positive FL value of more than 2, which proves that the firms gained more profit in these years.

OPERATING LEVERAGE OF TEXTILE FIRMS

Firms i. e. Aditya (2007), Alka (2005, 2006, and 2008), Arunoday (from 2004 to 2007), Blue (2008), Bombay (2008), Coimbatore Pioneer Mills (2005 and 2007), Jindal Texafab (2006), Modern (2004 and 2005), Pondicherry Spinners (from 2004 to 2007), Veejay (2008) show negative OL

TABLE 2   Operating Leverage of Textile firms for the period 2004–2008

No.	Name of the Firm	2004	2005	2006	2007	2008
1.	Aditya Mills Ltd.	0.33	2.06	21.3	10.15	0.54
2.	Alka India Ltd.	1.38	−1.13	−0.02	43.68	−1.88
3.	Ambika Cotton Mills Ltd.	1.72	1.64	1.43	2.39	1.45
4.	Anjani Fabrics Ltd.	6.43	4.68	2.41	4.52	1.46
5.	Arasan Syntex Ltd.	8.13	4.47	3.44	2.93	2.29
6.	Arunoday Mills Ltd.	−1.12	−1.96	−1.34	−0.12	0.43
7.	Asia Pack Ltd.	0.10	3.18	1.27	0.96	0.32
8.	Bannari Amman Spinning Mills Ltd.	2.23	0.69	1.26	1.27	1.35
9.	Birla Cotsyn India Ltd.	2.07	3.45	1.22	1.44	1.99
10.	Blue Blends (India) Ltd.	2.55	2.95	0.38	4.59	−3.49
11.	Bombay Dyeing & Mfg. Co. Ltd.	5.71	3.69	3.84	3.18	−2.22
12.	Coimbatore Pioneer Mills Ltd.	0.44	−0.29	17.25	−0.02	0.002
13.	Damodar Threads Ltd.	2.06	1.89	3.31	3.24	1.82
14.	East India Commercial Co. Ltd.	2.51	2.07	1.55	2.16	1.77
15.	Futura Polyesters Ltd.	4.21	4.65	10.97	4.17	2.51
16.	Garden Silk Mills Ltd.	4.58	6.62	3.56	2.92	2.72
17.	Gemini Dyeing & Printing Mills Ltd.	4.23	3.50	2.11	2.34	2.06
18.	Gloster Jute Mills Ltd.	3.69	2.36	1.89	2.99	1.59
19.	Indo Rama Synthetics (India) Ltd	2.29	4.66	6.57	2.31	3.88
20.	Jindal Texofab Ltd.	18.44	14.27	−14.68	11.39	6.21
21.	Modern Threads (India) Ltd.	−0.42	−0.05	1.37	0.09	1.59
22.	Orient Craft Ltd.	7.68	7.59	5.39	3.25	4.15
23.	Pondicherry Spinners Ltd.	−4.5	−0.5	−1.46	−1.67	0.15
24.	Provogue (India) Ltd.	1.52	3.33	2.41	2.68	2.26
25.	Veejay Lakshmi Textiles Ltd.	1.19	4.43	2.19	3.04	−2.21

due to operating loss during these years (see table 2). The OL value of
<1 proves that the OP is less than their liability. Among the selected firms
Ambika, Anjani, Arasan, Birla, Damodar, East India, Futura, Garden silk,
Gemini, Gloster, Indo Rama, Orient, Provogue have shown a positive OL
securing value >1 throughout the study period.

COMPOSITE LEVERAGE OF TEXTILE FIRMS

Firms i. e. Aditya (2007), Alka (2005, 2006, and 2008), Arunoday (2004–
2008), Blue (2004 and 2008), Bombay (2006–2008), Coimbatore (2005–

2008), Futura (2004 and 2006), Jindal (2006), Modern (2004–2006 and 2008), Pondicherry Spinners (2004–2007), and Veejay (2008) show negative CL values (see table 3). From the selected firms, Ambika, Anjani, Arasan, Bannari, Birla, Damodar, East India, Garden Silk, Gemini, Gloster, Indo Rama, Orient, Provogue show a positive CL with values >1. The highest values of CL of firms viz Arasan 2004 (23.38), Garden in 2005 (25.51), Gemini in 2004 (24.13), Indo Rama in 2008 (50.28), Jindal in 2004 (25.65), 2005 (21.26), 2007 (38.37) and 2008 (35.41) show a significant growth in sales, thereby profit.

TRENDS IN FL, OL, AND CL OF TEXTILE FIRMS IN INDIA

Firms i. e. Aditya from 2004–2008, Alka in 2005, 2006, 2008, Arunoday 2004–2008, Blue 2004–2008, Bombay 2006–2008, Coimbatore 2004–2008, Indo Rama 2008, Modern 2004–2008, Pondicherry Spinners 2004–2008, Veejay in 2008, Asia 2004–2005, Futura 2004–2006, Gemini in 2004 and Jindal in 2004, 2006, and 2007 all show negative values, thus proving that the firms incurred loss during those years (see table 4).

Firms i. e. Ambika, Anjani, Arasan, Asia, Bannari, Birla, etc show positive profitability ratios, which proves that there was a significant growth in the profit throughout the study period. Out of these firms, Ambika, Anjani, Arasan, Asia, etc show the highest values, which proves that these firms have gained huge profit, and thus the ratios (EBIT) over the total net income of profit and expenses, profit after tax over total net income shows growth in their calculated values. The return on investment (ROI) is the key indicator of profitability for a firm. It matches OP with the assets available to earn a return. Firms that are efficiently using their assets will have a relatively high return.

Firms, i. e. Ambika, Arasan, Birla, Blue, Coimbatore, Durairaj, Futura, Gemini, etc show an increasing trend in their values, which help the firms to meet their current obligations (see table 4, which shows the liquidity ratios, which help to examine the adequacy of funds, the solvency of the firm, and the firm's ability to pay its obligations). The higher the current ratio, the larger is the amount available per rupee of current liability; the more the firm's ability to meet current obligations, the greater is the safety of funds for short-term creditors. In case of CS, the lower the DER, the higher is the degree of protection enjoyed by the creditors.

The general thumb rule for this ratio is 2:1. The DERs of the firms Aditya (0.23), Alka (1.08), Ambika (2.51), Anjani (1.56), Arasan (1.63), Asia (0.17), Bannari (2.65), Birla (1.34), Bombay (10.22), Damodar (4.83),

TABLE 3   Combined Leverage of Textile Firms for the period 2004–2008

No.	Name of the Firm	2004	2005	2006	2007	2008
1.	Aditya Mills Ltd.	0.37	2.06	21.30	10.15	0.54
2.	Alka India Ltd.	1.43	−7.67	−0.02	43.68	−1.89
3.	Ambika Cotton Mills Ltd.	2.38	2.13	1.88	4.51	2.29
4.	Anjani Fabrics Ltd.	9.36	6.52	2.91	7.69	2.24
5.	Arasan Syntex Ltd.	23.28	14.43	17.33	5.62	4.90
6.	Arunoday Mills Ltd.	−0.37	−0.77	−0.35	−0.12	−0.42
7.	Asia Pack Ltd.	0.10	3.18	1.27	0.96	0.32
8.	Bannari Amman Spinning Mills Ltd.	2.41	0.71	1.39	1.62	2.12
9.	Birla Cotsyn India Ltd.	4.14	12.67	1.63	1.55	2.36
10.	Blue Blends (India) Ltd.	−1.15	3.08	0.39	11.36	−2.04
11.	Bombay Dyeing & Mfg. Co. Ltd.	7.67	5.21	−3.29	−5.22	−1.10
12.	Coimbatore Pioneer Mills Ltd.	0.34	−0.14	−1.97	−0.01	−0.49
13.	Damodar Threads Ltd.	2.73	2.61	4.08	3.81	3.81
14.	East India Commercial Co. Ltd.	6.71	3.01	1.85	2.54	2.14
15.	Futura Polyesters Ltd.	−50.02	16.83	10.78	8.77	5.55
16.	Garden Silk Mills Ltd.	6.35	25.51	9.08	6.15	5.25
17.	Gemini Dyeing & Printing Mills Ltd.	24.13	6.69	3.13	3.53	3.99
18.	Gloster Jute Mills Ltd.	4.85	3.24	2.84	4.94	1.88
19.	Indo Rama Synthetics (India) Ltd	2.71	6.19	8.97	4.55	50.28
20.	Jindal Texofab Ltd.	25.65	21.26	−7.98	38.37	35.41
21.	Modern Threads (India) Ltd.	−0.15	−0.04	−1.05	0.09	−1.26
22.	Orient Craft Ltd.	8.76	10.71	7.62	4.85	8.81
23.	Pondicherry Spinners Ltd.	−1.28	−0.5	−1.36	−1.67	0.15
24.	Provogue (India) Ltd.	1.86	3.98	2.83	3.20	3.22
25.	Veejay Lakshmi Textiles Ltd.	1.55	5.06	2.51	4.28	−1.39

Durairaj (1.44), East (0.84), Futura (1.16), Gemini (0.43), Gloster (0.70), Indo (2.07), Jindal (3.22), Orient (1.78), Pondicherry Spinners (0.01), Provogue (0.47) and Veejay (1.28) for 2008 are most impressive, except for firms viz Bannari, Bombay, Damodar, Jindal for which the values are less than 2, and firms viz Arunoday, Coimbatore and Blue which show 0 value, thus there is a higher degree of protection for those firms which show less DER. The high interest coverage ratio means the firm can easily meet its interest burden even if the EBIT suffer a considerable decline. A

TABLE 4 Trends in FL, OL, and CL of Textile Firms in India

(1)	(2)	(3)	(4)
AML	0.89	0.15	0.15
AIL	0.18	0.79	0.61
ACML	4.57*	0.52	1.08
AFL	5.15	1.69	2.06
ASL	0.05	0.79	2.14
ARML	1.21	0.91	0.14
APL	2.24	0.39	0.38
BASML	1.73	0.41	0.88
BCIL	1.06	2.09	1.51
BBIL	1.02	0.73	0.80
BDMCL	1.79	0.25	1.59
CPML	0.48	0.88	0.28
DTL	0.41	1.73	2.64
EICCL	1.23	2.78	0.27
FPL	0.94	0.45	0.92
GSML	2.34	0.73	0.36
GDPML	1.28	1.71	1.16
GJML	0.37	0.37	0.53
IRSIL	1.06	2.06	0.62
JTFL	2.11	2.06	0.16
MTIL	0.53	1.07	1.07
OCL	0.62	0.25	0.25
PSL	3.92*	1.81	2.63
PIL	1.34	3.12	0.55
VLTL	0.15	0.48	0.75

Column headings are as follows: (1) firm, (2) t-value for FL, (3) t-value for OL, (4) t-value for CL. * Significant at 1% level. Table value of t for $v = 5-1 = 4$ at 5% level is 2.776 and at 1% level is 4.604.

TABLE 5 Regression and Correlation Coefficient of Sales and EBIT of Selected Textile Firms in India

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
AML	$X = 0.29Y + 2.07$	$Y = 0.19X - 1.28$	2.39	1.11	0.24	5	3	0.44
AIL	$X = -2.53Y + 156.07$	$Y = -4.73X + 755.50$	160.06	1.5	0.11	5	3	0.19
ACML	$X = 3.49Y + 37.47$	$Y = 0.15X + 5.5$	118.89	23.33	0.72	5	3	2.59
AFL	$X = 12.23Y + 42.91$	$Y = 0.03X + 0.73$	81.92	3.19	0.59	5	3	1.57
ASL	$X = 1.49Y - 3.65$	$Y = 0.53X - 9.95$	23.40	2.45	0.89	5	3	7.33
ARML	$X = 0.94Y + 34.79$	$Y = 0.05X - 8.93$	41.25	6.87	0.21	5	3	0.38
APL	$X = 0.86Y + 1.17$	$Y = 1.14X - 1.27$	3.96	3.24	0.99	5	3	85.64
BASML	$X = 0.08Y + 104.56$	$Y = 3.28X - 327.36$	106.25	21.14	0.51	5	3	1.19
BCIL	$X = 0.05Y + 29.72$	$Y = 16.72X - 496.67$	29.82	1.92	0.96	5	3	20.76
BBIL	$X = 14.42Y - 240.16$	$Y = 2.82X - 350.45$	133.46	25.91	0.88	5	3	6.62
BDMCL	$X = 0.06Y + 950.22$	$Y = 6.33X - 5974.45$	954.13	65.19	0.62	5	3	1.73
CPML	$X = -1.89Y + 17.86$	$Y = -0.02X + 8.4$	2.06	8.36	0.21	5	3	0.38
DTL	$X = 15.07Y + 14.63$	$Y = 0.06X - 0.46$	80.79	4.39	0.25	5	3	0.46
EICCL	$X = 8.03Y + 53.68$	$Y = 0.11X - 4.73$	134.62	10.08	0.92	5	3	10.61
FPL	$X = -0.31Y + 496.81$	$Y = 0.02 + 37.32$	505.25	27.21	0.08	5	3	0.14
GSML	$X = 12.85Y - 98.35$	$Y = 0.07X + 1.39$	1156	82.33	0.96	5	3	20.76
GDPML	$X = 3.36Y + 18.77$	$Y = 0.23X - 3.82$	26.20	2.21	0.88	5	3	6.62
GJML	$X = 2.23Y + 108.46$	$Y = 0.28X - 26.16$	134.79	11.78	0.79	5	3	3.69
IRSIL	$X = -1.45Y + 2464.67$	$Y = 0.14X - 171.52$	2255	144.2	0.45	5	3	0.99
JTFL	$X = 8.48Y + 26.42$	$Y = 0.02X - 0.21$	29.98	0.42	0.42	5	3	0.89
MTIL	$X = 0.01Y + 82.25$	$Y = 14.92X - 1219.63$	82.36	9.14	0.43	5	3	0.91
OCL	$X = 3.89Y + 514.28$	$Y = 0.19X - 84.16$	689.51	44.99	0.85	5	3	5.25
PSL	$X = 8.57 + 2.25$	$Y = 0.04X - 0.14$	1.48	0.09	0.55	5	3	1.38
PIL	$X = 7.29Y + 19.13$	$Y = 0.25X - 21.59$	174.78	21.36	1.34	5	3	2.93
VLTL	$X = 1.41Y + 32.03$	$Y = 0.4X - 12.44$	33.75	1.22	0.75	5	3	2.95

Column headings are as follows: (1) firm, (2) regression equation X on Y, (3) regression equation Y on X, (4) mean of sales, (5) mean of EBIT, (6) r, (7) N, (8) df, (9) t-value. Table value of t for $v = 5 - 2 = 3$ at 5% level of significance is 3.182 and at 1% level of significance is 0.841.

low interest coverage ratio may result in financial embarrassment when EBIT declines. Firms i. e. Aditya, Alka, Arunoday, Asia, Blue, Bombay, Coimbatore, etc show a negative or less value, and firms viz Ambika, Anjani, Arasan, Bannari, Birla, Damodar, Durairaj, etc show a higher value. The debtor's ratio is to measure the liquidity of the receivables or to find out the period over which receivables remain uncollected. The debtor's turnover ratios determine the liquidity of the firms. The lesser the period, the more is the liquidity; and the greater the period, the less is the liquidity.

Firms i. e. Ambika, Arasan, Bannari, East, Gloster, Indo and Pondicherry Spinners show a lesser period of collections while the other firms show higher period of collection. In case creditor's payable ratio is longer, the period of outstanding payable is lesser. Firms, viz Bannari, Damodar, and East show a lesser period of payable, while the other firms show a longer period of payables. The calculated *t*-values for firms, viz ACML (4.57) AFL (5.15), and PSL (3.92) are higher than the table value at 5% level; and lower than the table value at 1% level of significance (see table 4). For all the other firms, the *t* values are lower than the table values at 5% level of significance.

H$_0^1$ *There is no significant relationship between the Sales and* EBIT *and the derived correlation coefficient from Sales and* EBIT *with respect to leverage.*

REGRESSION AND CORRELATION COEFFICIENTS OF SALES AND EBIT

As the *t*-values of most of the firms are lower than the table values, H$_0^1$ is accepted, therefore it is proved that there is no significant relationship between the Sales and EBIT and the derived correlation coefficient from Sales and EBIT with respect to leverage. However, *F*-values are higher than the table values at 5% and 1% level of significances (see table 5) for firms i. e. BASML (14951.17), BCIL (45.96), BDMCL (55.13), EICCL (64.47), GSML (20.24), GJML (48.64), OCL (59.59), and VLTL (813), and for a few firms, i. e. BBIL, CPML, DTL, JTFL, MTIL, and PSL it shows nil value.

VARIANCE RATIO TESTS OF INVESTMENT AND BORROWINGS AS WELL AS NET WORTH AND BORROWINGS

H$_0^2$ *There is no significant relationship between the investment and borrowings with respect to leverages as well as* FDs.

TABLE 6   Variance Ratio Tests of Investment and Borrowings as well as Net Worth and Borrowings of Selected Textile firms in India

(1)	(2)	(3)	(4)	(5)	(6)	(7)
AML	0.04	0.59	10	3.09	0.59	0
AIL	19.20	2.26	2.32	60.00	2.26	18.43
ACML	177.34	159.37	1.06	84.88	159.37	11.18
AFL	13.87	13.88	1.04	11.53	13.88	6.89
ASL	20.04	19.29	1.00	9.56	19.29	1.03
ARML	33.12	81.91	3.51	55.39	81.91	1.90
APL	2.08	3.86	5.43	6.97	3.86	2.65
BASML	3.60	163.59	14951.17	110.73	163.59	5.99
BCIL	3.71	20.91	45.96	32.64	20.91	1.36
BBIL	10.74	142.74	0	110.12	142.74	1.04
BDMCL	151.97	750.62	55.13	398.28	750.62	114.54
CPML	0.02	38.93	0	38.20	38.93	1.30
DTL	0.02	34.85	0	11.64	34.85	48.26
EICCL	0.65	31.06	64.47	29.13	31.06	6.19
FPL	25.14	146.09	11.09	160.44	146.09	296.87
GSML	87.44	609.18	20.24	349.04	609.18	14.68
GDPML	3.04	8	1.37	19.95	8.00	4.04
GJML	0.84	30.87	48.64	30.44	30.87	2.09
IRSIL	80.57	792.6	6.98	662.79	792.6	165.04
JTFL	0	9.29	0	3.18	9.29	29.43
MTIL	0.01	272.35	0	374.63	272.35	10.78
OCL	24.54	301.35	59.59	185.95	301.35	10.08
PSL	0	0.28	0	0.89	0.28	2.67
PIL	58.51	63.86	1.98	146.79	63.86	6.87
VLTL	0.15	17.22	813	20.76	17.22	1.76

NOTES   Column headings are as follows: (1) firm, (2) investment mean (X), (3) borrowing mean (Y), (4) F-value, (5) net worth mean (X), (6) borrowing mean (Y), (7) F-value. Table value of F for $v = 5 - 1 = 4$ at 5% level of significance is 6.39 and at 1% level of significance is 15.98.

H_0^2 is rejected as per the calculated F value, and it is concluded that there is a significant relationship between the investment and borrowings with respect to leverages as well as FDs. Observation of table 6 indicates that the F values of AIL (18.43), BDMCL (114.54), DTL (48.26), FPL

(296.87), IRSIL (165.04), JTFL (29.43) are higher than the table value at 5% and 1% levels of significance, and for all other firms the values are lower than the table values, hence H_0^2 is accepted.

VARIANCE RATIO TESTS OF NET WORTH AND CL AS WELL AS NET WORTH AND FL

H_0^3 *There is no significant relationship between the net worth and borrowings with respect to leverages as well as FDs.*

H_0^3 is rejected based on the computed *F* value, since it is concluded that there is a significant relationship between the net worth and borrowings with respect to leverages as well as FDs.

Observation of the results indicates (see table 7) that the calculated *F* values of AIL (8.97), AFL (1.09), FPL (5.76), GSML (10.64), IRSIL (1.25), VLTL (7.93) are lower than the table values at 5% and 1% levels of significance, and the *F* values for the other firms are higher than the table values.

H_0^4 *There is no significant relationship between the net worth and combined leverage with respect to FDs.*

H_0^4 is rejected with the support of calculated *F* value, hence it is concluded that there is a significant relationship between the net worth and combined leverage with respect to FDs. Further, table 7 also reveals that only few firms' *F* values are lower than the table values at 5% and 1% levels of significances [AIL (12.64), ASL (2.32), GDPML (1.64), IRSIL (12.27), and PSL (1.6)], and for all the other firms the *F* values are higher than the table values.

H_0^5 *There is no significant relationship between the net worth and FL with respect to FDs.*

H_0^5 is not proved based on calculated *F* value, hence H_0^5 is rejected and thus it is found that there is a significant relationship between the net worth and FL with respect to FDs.

Summary of Results, Concluding Remarks & Suggestions and Scope for Further Studies

SUMMARY OF RESULTS

There is no major change in the FL of firms viz AMI, APL, BASML, GJML, etc. however, there is a significant growth in the FL of ASL, ARML, DTL, GSML, etc. for the study period. Firms i. e., BBIL, BDMCL, CPML, FPL,

TABLE 7 Variance Ratio Tests of Net worth and CL as well as Net worth and FL of Selected Textile firms in India

(1)	(2)	(3)	(4)	(5)	(6)	(7)
AML	0.95	130.38	137.24	0.95	0.003	316.67
AIL	47.92	429.98	8.97	47.92	3.79	12.64
ACML	617.83	1.13	546.75	617.83	0.06	10297.17
AFL	8.61	9.44	1.09	8.61	0.04	215.25
ASL	3.57	61.62	17.26	3.57	1.54	2.32
ARML	497.81	0.89	559.34	497.81	0.14	3555.79
APL	130.77	1.49	87.77	130.77	0	0
BASML	4513.76	0.44	10258.55	4513.76	0.05	90275.2
BCIL	838.31	22.09	37.95	838.31	1.16	722.69
BBIL	4179.72	29.27	142.79	4179.72	1.10	3799.29
BDMCL	1944.09	30.78	63.16	1944.09	1.59	1222.69
CPML	556.33	0.80	695.41	556.33	0.18	3090.72
DTL	33.05	0.47	70.32	33.05	0.14	236.07
EICCL	75.94	3.93	19.32	75.94	0.42	180.81
FPL	4082.02	708.34	5.76	4082.02	39.86	102.41
GSML	774.17	72.75	10.64	774.17	0.86	900.19
GDPML	1.98	1120.78	566.05	1.98	3.25	1.64
GJML	77.12	1.75	44.07	77.12	0.03	2570.69
IRSIL	324.44	404.46	1.25	324.44	26.45	12.27
JTFL	0.14	168.02	1200.14	0.14	4.27	30.50
MTIL	10891.82	0.81	13446.69	10891.82	0.81	13446.07
OCL	1677.79	3.99	420.49	1677.79	0.13	12906.08
PSL	0.16	3.18	19.88	0.16	0.10	1.60
PIL	17710.69	0.59	30018.12	17710.69	0.01	17771.07
VLTL	50.89	6.42	7.93	50.89	0.09	565.44

NOTES Column headings are as follows: (1) firm, (2) net worth variance, (3) CL variance, (4) *F*-value, (5) net worth variance, (6) FL variance, (7) *F*-value. Table value of *F* for $v = 5 - 1 = 4$ at 5% level of significance is 6.39 and at 1% level of significance is 15.98.

MTIL show a negative leverage for few years of the study period, while firms viz BCIL, VLTL show a decreasing trend in the FL, and the other firms show a triggering trend. Among the selected 25 textile firms there is an increase in the position of OL for two firms, i. e. IRSIL, PIL, while there is a decrease in the position of OL for 10 firms i. e. AMI, AIL, ARML,

bbil, bdmcl, cpml, etc. during the study period, and the other firms show a triggering trend.

The cl of 11 firms viz., ami, ail, arml, bbil, bdmcl, cpml, fpl, jtfl, mtil, psl and vltl show a negative trend, while a significant growth rate is found for five firms i. e., irsil, ocl, pil, basml and dtl in terms of cl during the study period. However, there is a decreasing trend in the cl of firms viz., afl, apl, gjml, vltl; the other firms show a triggering trend during the study period.

There is no significant difference between the financial variables of sales and ebit; the derived correlation coefficient from sales and ebit is significant with effect to leverage as the calculated t value is lower than the table value for $v = 3$ at 5% level of significance (3.182) and at 1% level of significances (5.841). However, there is a significant relationship between the investment and borrowings with effect to leverage and fd as most of the firms' F-value is higher than the table value for $v = 4$ at 5% (6.39) and at 1% level of significances (15.98). Also there is a significant relationship between the net worth and borrowings as well as a relationship between the net worth and cl with respect to fd as the computed F value is higher than the table value; there is a significant relationship between the net worth and fl with effect to fd.

Profitability ratios of the firms, ami from (2004–2008), ail in (2005–2006 and 2008), arml (2004–2008), bbil (2004–2008), bdmcl (2006–2008), cpml (2004–2008), irsil (2008), mtil (2004–2008), psl (2004–2008, vltl (2008), apl (2004–2005), fpl (2004–2006), gdpml (2004), and jtfl (2004, 2006, and 2007) show negative values, thereby proving that the firms faced loss during those years. Firms like acml, afl, asl, apl, basml, bcil, etc. show positive profitability ratios, which prove that there is a significant growth in the profit throughout the study period. Among these firms, acml, afl, asl, apl, basml, dtl, eiccl, gsml, gsml and pil show higher profitability ratios, which prove that they have gained huge profit over the study period.

acml, asl, bcil, bbil, cpml, fpl, gdpml, etc. show an increasing trend in their current ratios, which helps the firms to meet their current obligations. The der for the year 2008 for firms viz., ami (0.23), ail (1.08), acml (2.51), afl (1.56), asl (1.63), apl (0.17), basml (2.65), bcil (1.34), bdmcl (10.22), etc. except for firms viz., basml, bdmcl, dtl, jtfl, where the values are less than 2 and firms viz arml, cpml and bbil show 0 value, thereby leading to conclude that there is a higher degree of protection for those firms which show less der.

CONCLUDING REMARKS

Leverage represents the influence of one financial variable over some other related financial variables, while business risk refers to the volatility of EBIT. In other words, leverage refers to the use of fixed costs in an attempt to increase OP. OL is due to fixed operating costs associated with the production of goods or services, and FL is due to the existence of fixed financing costs. Both types of leverages affect the level and volatility of the firm's after tax earnings and thereby the firm's overall risk and return.

FL is employed in the hope of increasing the return to common stockholders. The purpose of the leverage is to maximize the profits; a high degree of leverage gives a huge increase in profits, however one can't ignore that the higher the degree of leverage the greater is the risk. Hence, the term *risk* implies the degree of uncertainty the firm has to face in meeting fixed payment obligations, so it is said to be a *double-edged weapon.* If it is used in the right (appropriate) way it serves the purpose (positively) very well, and if not it acts reversely (negatively); its effects are favourable or unfavorable depending upon the use of it.

Increasing leverage is the easiest way to increase returns in a rising market, and there were incentives to chase these returns and to ignore or downplay the risks. FL may also be an effective weapon in the battle for corporate control. Certain Employee Stock Ownership Plans (ESOPs) are 'leveraged', in that the trust fund borrows funds in order to quickly place a large number of the firm's shares in friendly hands.

In the present study 25 textile firms, which are listed in Bombay Stock Exchange, are taken as sample units for the study period on a year-to-year basis from 2004 to 2008. Firms viz ACM, AFL, ASL, BASML, BCIL, GSM, GDPM and GJML show a *significant growth rate in financial, operating and combined leverages.* The selected financial variables viz sales, EBIT, investment, borrowings and net worth influence the leverage in both the positive and negative way. As a general rule, a firm having low FL should have a high operating leverage and vice versa. Since OL is related to the fixed cost of the firms these firms have large fixed cost and thus much of the marginal contribution must be applied to cover fixed cost. Firms i. e. DTL, FPL, GSML, PVL and GJML have high OL and low FL. Firms viz AFL, ASL, FPL, GSML and OCL show high OL. In this case the firm should finance its new investment from sources other than debt, which will help in reducing the OL.

A low OL means high controllable costs and low uncontrollable costs or fixed costs and therefore leads to a less risky situation. A high FL suggests that a firm has taken adequate help from fixed interest bearing securities, in planning its CS, in order to maximize the return to the shareholders. CL is the result of these two leverages and measures the total risk.

In the present study firms viz APL, GJML have low OL and high FL. High leverage generates interest payments that may be highly relative to current levels of cash flow. The results show that the effect of high leverage is likely to influence the divisional allocation of investment within a firm, which further suggests that high leverage has the potential to distort a firm's internal investment policy. This evidence, however, comes from a sample of firms that chose to undergo a dramatic increase in leverage. Since firms have self-selected into the sample, it is possible that the indirect costs of high leverage are less important.

Leverage is positively related to firm's value for low growth firms, but negatively related to firm's value for high growth firms. Much of the evidence regarding the effect of leverage on investment comes from the analysis of firm-level data, while the effect of leverage in determining the level of the overall firm's investment is clearly of interest. The effect of leverage on firms' investment policies has been a question of long standing interest. In the presence of market imperfections, leverage has the potential to have an important influence on investment decision. The managerial ownership aligns the interests of shareholders and managers through eliciting increased leverage, whereas institutional investors discourage managerial overspending through the board of directors and encourage firms to preserve borrowing capacity. This finding *supports the theory that leverage has a disciplining role on this kind of firms and it is also in conformity with the results of the previous literature.*

SUGGESTIONS AND SCOPE FOR FURTHER STUDIES

Suggestions

- Firms i. e. ASL, AFL and GSML show high FL and OL, thus binding risky, and these firms have high fixed cost and high level of debt financing. This combination is risky as both the leverages are high, and these risks can be avoided by managing the leverages to the appropriate level.
- Firms i. e. DTL, FPL, GSML, PVL and GJML have high OL and low FL;

hence these firms should finance their new investment from sources other than debt so that it may help them in reducing the OL.

- Firms i. e. APL, BASML, BCIL, GDPML and GJML show an almost balanced OL and FL, which is not a risky situation. FL is employed in the hope of increasing the return to the common shareholders and the leverage is favorable in these firms.

- Firms i. e. AFL, ASL, FPL, GSML and OCL show high OL. Since OL is related to the fixed cost, these firms have large fixed cost, thus much of their marginal contribution must be applied to cover fixed cost. If the firm has high OL, even a small change in sales will have a large effect on EBIT. If the change is a small rise in sales, profits will rise dramatically, but if the change is a small decline in fore-casted sales, EBIT may be wiped out and loss may be reported. As a general rule, firms do not like to operate under conditions of a high OL. This is a high risk situation in which a small drop in sales can be excessively damaging to the firm's efforts to achieve profitability. The firm prefers to operate sufficiently above break-even to avoid the danger of a fluctuation in sales and profits. In this case these firms should be careful while making FDs.

- Profitability ratio of firms i. e., ACML, AFL, ASL, APL, BASML, BCIL, etc shows a positive increase in their ratios and there is a significant growth in their profit rate, hence these firms could expect an increase in EBIT in the years to come, provided other things (variables) remain the same.

- ACML (19%), BASML (87%), BCIL (55%), VLTL (13%), JTFL (93%), GSML (6%), GDPML (20%), and BDMCL (7%) show a significant growth in their profit level, thus income comprises the variable cost and fixed cost as the income increases and the variable cost also increases but the fixed cost remains stable, thus more profit could be gained by these firms.

- Efficiency ratio of firms i. e. AFL (1.4), MTIL (1.03), EICCL (1.57), IRSIL (1.06), GJML (1.64), GSML (1.4), FPL (1.06), and DTL (1.72) >1, which shows more income than the average asset and thus increases in the ratio.

- FL, OL and CL are influenced by the selected financial variables such as net worth, investment and borrowings. CL of firms i. e., AFL, ASL, BCIL, GSML, GDPML, IRSIL and OCL is high. CL is used to compare changes in revenues with changes in EBT. It is viewed as the total

impact of fixed charges in the firm's operating and financial structure to magnify the effects of changes in sales on the firm's EPS, a proper balance between the two leverages can only provide an ideal CL. Maintaining an ideal situation would require a firm to have low OL and high FL, in order to keep the risk profile of the firm within a reasonable limit and maximize the return to the shareholders. The findings suggest several novel insights into the interdependency of CL and FD, which helps the firms to determine the business risk in terms of FL and OL.

Scope for Further Studies

The present study suggests a number of interesting avenues for future research. Further studies can be conducted also in the following areas:

- The relationship between ownership structure and leverage based on the size of the firms as the significance of the relationship differs with the size.
- The important implications on the relationship between leverage and investment in emerging markets where crises and macroeconomics fluctuations are very common and business risk can be dogged.
- The leverage influence on the resources of diversified firms, which undergo recapitalization, to determine the effects on the business environment.
- The relationship between CL and product differentiation strategy, as drastic product differentiation strategies allow firms with healthy balance sheets to sustain superior product market rents, while firms with high leverage and poor balance sheets should be deterred from adopting overly drastic differentiation choices.

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