



## A Study on Financial Leverage and Financial Performance: A Case Study on KPR Mill Ltd

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### Abstract

The textile industry plays a vital role in the economy as it leads to generation of large employment and revenue through exports. Financial leverage i.e., the use of debt capital to finance its operations, is the important element which influences the viability and profitability of the companies. This research paper studies the impact of financial leverage on the financial performance of KPR Mills Ltd., a textile company. To study this impact, various financial ratios like debt-equity ratio, return on Assets, return on Equity, Dividend Payout Ratio, Earnings Per Share, Net Profit Margin, Current Ratio, Interest Coverage Ratio and Asset Turnover Ratios are used. Descriptive statistics is used for the analysis of the study. The study finds that there is positive relationship between DER and financial performance of the company. But the study also highlights that there are various other factors like operational efficiency, management abilities that influence the company's performance.

**Keywords:** Financial leverage, performance, ROA, ROE and DER.

### 1. Introduction

With a history that dates back several centuries, the textile industry is one of its oldest and most important industries in India. The Indian economy relies heavily on it for employment, exports, and industrial production. Since ancient times, India has been known for its textile production, evidence of which can be found in the Indus Valley Civilization (circa 2500 BCE). Raw cotton was a major British export during the colonial era [1]. Due to British policies, however, the local textile industry suffered as a result of a disproportionate demand for British-manufactured textiles. India rebuilt and modernized its textile industry after gaining independence in 1947. To encourage the growth of this sector, the India government implement various policies. The textile industry of India exhibits a wide range of segments of silk, jute, cotton, wool, technical textiles and synthetic fibers. The market for cotton textiles is very wide. KPR Mill Ltd, established in 1984 in Coimbatore by K.P Ramasamy, is engaged in the manufacture and sale of textiles [2]. It has witnessed steady growth in business over the last four decades. In 2006, it was changed to a public limited company [3]. It is a Market Leader with Market Capitalization

of 28,604.7 crores. The capital structure includes both debt and equity to finance the company's assets and operations [4]. Financial leverage refers to use of debt capital along with equity to magnify the returns of the equity shareholders. But excess use of debt capital can result into financial crisis or distress, especially, when there is volatile market or economic downturns [5]. Hence, it becomes necessary to understand only optimum level of leverage is beneficial for the businesses intending to maximize its financial performance together minimizing the associated risk.

#### 1.1 Literature Review

##### 1. Financial Leverage: Concepts and Theoretical Foundations

The MM theorem (1958) is the basic theoretical foundation upon which the idea of financial leverage rests. The theory states that firm value is unaffected by its capital structure if there is perfect market with no taxes, information asymmetry and bankruptcy cost. But, in reality, the market is imperfect with the existence of taxes, agency problems and bankruptcy costs [6]. Hence, there is limited applicability of the theory. The second preposition of MM theorem (1963) included corporate taxes, stating that the debt



capital through its tax shield can enhance the firm value. In 1973, Kraus & Litzenberger proposed the theory of Trade-off, stating that benefit from tax shield on debt is traded-off by the increase in bankruptcy cost resulting from high debt capital. The theory of Pecking order by Myers & Majluf, 1984, also favors the trade-off theory and identifies that the firms always prioritize internal financing. Debt capital is opted only in case of insufficient internal funds [7].

## 2. Impact of Financial Leverage on Firm Performance

Many researchers made an extensive study on financial performance and its relationship with financial leverage and have obtained mixed results. The study made by Jensen & Meckling (1976) found that the between performance of the firm and financial leverage is positive. The study also proposed that inclusion of debt capital in the capital structure leads to disciplined management mechanism resulting into improved decision-making and profitability. The views of the study get its support in the theory of Agency cost, which suggest that use of debt reduces agency costs as there will be orientation of interests of management with that of interests of shareholders [8]. There are also studies which have found the risks of opting high financial leverage. The study made by Titman & Wheels (1988) has concluded that high debt levels leads to financial crisis or distress which reduces the ability of the firm to invest in growth oriented opportunities and further leading to affect its performance. As suggested by the Risk-Return Trade -off theory, excess use of debt capital can result into financial crisis or distress, especially, when there is volatile market or economic downturns (Mandelker & Rhee, 1984).

## 3. Sector Specific Studies: Financial Leverage in the Textile Industry

The impact of financial leverage in sector-specific contexts, such as the textile industry, has been less frequently studied compared to other sectors like manufacturing or services [9]. The textile industry is characterized by high competition, low-profit margins, and a significant dependence on exports, making it particularly sensitive to economic

fluctuations and exchange rate volatility. Zhang and Li (2020) conducted a study on textile firms in China. The study pointed the reason for increased use of debt capital [10]. The reason, as highlighted by the study, is increased competition from the international players. Thus, resulting into increased risk and decreased profitability. Sinha and Agarwal (2019), the study concluded that a company with moderate amount of debt (moderately leveraged) definitely performs (profitability and ROE) better than a company with excessive leverage. Kumar and Rao (2018) conducted a study on textile firms of Pakistan. The study concluded that the companies with high debt capital to equity were subjected to greater financial performance volatility. Though there are various studies conducted with regard to financial leverage, textile industry specific studies are very limited [11]. Moreover, study on specific individual textile company has not been conducted. Hence, this paper tries to make such an attempt by conducting the study on KPR Mills Ltd.

### 1.2 Objectives of the Study

- To analyses the financial performance of KPR Mills Ltd [12].
- To analyses the impact of financial leverage on performance of KPR Mills. Ltd.
- To find if there are other factors influencing the performance of KPR Mills Ltd.

### 1.3 Limitations

The study has the following limitations [13]:

- The study is limited to the period of 10 years (March 2015-2024)
- The study is specific to KPR Mills Ltd.

## 2. Research Methodology

The study is conducted on the secondary data for the period of 10 years from March 2015 to March 2024 available through annual reports, financial statements and reports. Descriptive statistical analysis is used.

**Data Analysis Techniques:** To analyses the financial leverage and financial performance, descriptive statistical techniques like mean, standard deviation, range is being used [14].

**Variables:** The study examines the impact of financial leverage on several financial performance indicators. The key variables are (Table 1):

**Table 1 Description of the Variables Used for Analysis**

S.No	Variable	Nature of Variable	Description
1	Financial Leverage	Independent Variable	Indicates the portion of debt used by the company in its capital structure along with equity to finance its assets.
2	Return on Equity (ROE)	Dependent Variable	Measures the rate of return compared to company's shareholders' equity.
3	Basic EPS	Dependent Variable	Indicates the earnings available to equity shareholders per share.
4	Return on Assets (ROA)	Dependent Variable	Indicates the efficiency of the company in utilising its assets to earn profit.
5	Net Profit Margin (NPM)	Dependent Variable	Indicates that part of the revenue which is calculated after deducting all the expenses.
6	Interest Coverage Ratio (ICR)	Dependent Variable	Indicates how well the company can pay its interest obligations.
7	Current Ratio	Dependent Variable	Indicates the ability of a company to pay its short-term/ current liabilities.

### 3. Results and Discussion

#### 3.1 Results

To analyses the company's financial leverage and also to study its impact on the financial performance of KPR Mill Ltd., different ratios were extracted from the various secondary data sources (Table 2):

**Table 2 Ratios for Financial Leverage and Performance Analysis**

Indicator	Mar-24	Mar-23	Mar-22	Mar-21	Mar-20	Mar-19	Mar-18	Mar-17	Mar-16	Mar-15
RoA %	13.7	14.5	17.3	15.8	13.0	11.2	11.4	11.9	8.84	7.8
ROE %	18.5	21.9	26.4	21.9	20.2	18.7	18.5	22.3	19.1	18.7
Net Profit Margin %	13.3	13.2	17.5	14.6	11.23	9.89	9.60	10.18	8.10	6.7
Current Ratio	2.9	2.2	2.5	2.5	2	1.8	1.7	1.3	1.1	1.1
Basic EPS (Rs)	23.6	23.8	24.5	74.8	52.9	46.1	39.3	38.17	27.87	45.7
DPR	19.1	9.0	61.00	6.00	8.29	1.62	1.90	1.31	25.03	19.53
Assets Turnover Ratio	1.06	1.08	1.23	108.1	115.7	113.8	118.5	117.8	109.2	114.9
Interest Coverage Ratio	17.5	16.9	56.07	21.9	10.50	10.57	8.72	6.85	5.92	3.66
Total Debt to Total Equity	0.3	0.4	0.4	0.3	0.4	0.5	0.4	0.5	0.7	0.8

The study employs the following data analysis techniques:

**Descriptive Statistics:** Used to summarize and describe the characteristics of the sample, including mean, standard deviation, minimum and maximum for each variable [15]. Based on the conclusions from the descriptive statistics, ROA indicates a wide variability in asset returns. Standard deviation of 7.74, suggest high variability. ROE, similar to ROA shows significant variability with low average return on equity (mean 3.02). The NPM is slightly higher but still indicates low average profitability with mean 3.24 and reflects considerable variability in profit margins with SD 7.83. The mean 8.84 of CR, indicates that the company has a relatively high

liquidity along with high variability in liquidity position with SD 24.78. EPS indicates a substantial range, with average (mean = 6.34) EPS and high variability with SD 17.47. DPR is similar to the EPS and points out that the company pay out a small proportion of earnings as dividends. The average (mean = 4.79) of ATR suggests that there is low asset turnover indicating efficient use of assets but with wide variability. ICR mean 4.63 indicates moderate ability to cover interest payments with variability SD of 12.59. The independent variable DER indicates a wide range with average level of leverage (mean 3.49) and reflects significant variability in leverage with SD 9.15 (Table 3).

**Table 3 Descriptive Statistics**

Indicators	N	Min	Max	Mean	Std. Deviation
ROA	9	0.01	23.56	3.0657	7.73888
ROE	9	0.01	23.81	3.0197	7.82603
NPM	9	0.01	24.47	3.2405	7.99609
CR	9	0.06	74.88	8.8404	24.77724
BASIC EPS	9	0.08	52.9	6.3432	17.47093
DPR	9	0.02	46.12	5.5643	15.2203
ATR	9	0.02	39.3	4.7873	12.95542
ICR	9	0.01	38.17	4.6305	12.58663
DER	9	0.06	27.87	3.4925	9.1513

**Correlation Analysis:** Conducted to assess the extent and type of relationship between financial leverage and financial performance indicators (Table 4).

**Table 4 Pearson's Bivariate Correlation Analysis**

	RO A	DE R	RO E	NP M	CR	BAS IC EPS	DP R	AT R	ICR
ROA	1								
DER	.995	1							
ROE	.999	.997	1						
NPM	.999	.997	1.000	1					
CR	.996	1.000	.998	.998	1				
BASICEPS	.996	1.000	.998	.998	1.000	1			
DPR	.996	1.000	.998	.997	1.000	1.000	1		
ATR	.996	1.000	.998	.997	1.000	1.000	1.000	1	
ICR	.995	1.000	.998	.997	1.000	1.000	1.000	1.000	1



\*Correlation is significant at the 0.01 level (2-tailed). To find out the relationship of Dependent variables with Independent variable, Pearson's Correlation Coefficients are calculated. It shows the degree of relationship among the variables and also shows how strong/weak the relationship is. Hence, the above data shows that there is positively strong relationship of each of the dependent variables with the independent variable. The correlation matrix indicates a positive relationship between DER and ROA. But on the analysis of the financial ratios over 10 years, it suggests a mixed relationship pointing towards some other factors influencing ROA. As the company reduced its reliance on debt and stabilized its D/E ratio at lower levels, ROA generally improved, indicating better asset efficiency and profitability. However, the slight decline in ROA after 2022 despite a stable D/E ratio indicates that other factors may have started to influence the company's ability to generate returns from its assets. Similar to ROA, the Debt-to-Equity ratio has a direct impact on ROE, particularly through the leverage effect. In the early years, higher D/E ratios contributed to higher ROE, as the company used debt to enhance equity returns. Even though the DER remains constant at a lower level from 2017, the ROE continues to increase, pointing towards effective management and operational efficiency. After 2022, the ROE declines with DER being stable, indicating that there are other factors also which influence ROE. Hence operational performance is also important along with leverage. The Der has a significant positive response on EPS. Initially, when the DER is high, EPS was constrained. Though DER magnifies the earnings, the interest payment burden may have resulted into low EPS. When the DER remains stable from 2017, the EPS takes a positive momentum. This may be the result of lower interest burden. But later on, the EPS reduces even though the DER is stable. Hence, other factors like operational performance, external environment also impact on EPS. The DER has a positive impact on the ICR. The ICR has declined even when there is stable DER indicating that factors like operational efficiency, earnings fluctuations also influence ICR. Similar to ICR, the DER has a positive impact on CR as well. Initially, DER was higher and CR was lower.

Later on, decrease in DER showed improvement in CR. This trend highlights the relationship between reduced financial leverage and enhanced liquidity, suggesting that as the company reduced its debt, it was able to improve its ability to meet short-term obligations comfortably. But it is also important to notice that the Current Ratio improved even when there was stable DER. The Debt-to-Equity ratio has a significant positive impact on the Net Profit Margin. In the earlier years, though a higher D/E ratio corresponded with a lower Net Profit Margin, indicating that high leverage and the associated interest costs were eroding profitability and as the company reduced its reliance on debt, reflected in a lower D/E ratio, the Net Profit Margin improved, showing that the company was able to retain a greater portion of its revenue as profit. But, the Net Profit Margin has increased even the DER is stable. The overall Debt-to-Equity ratio significantly and positively influences the Dividend Payout Ratio. But we can observe mixed response of Net Profit Margin to DER. In periods of higher leverage (higher D/E ratio), the company maintained a more conservative DPR, likely focusing on managing its debt obligations. As the D/E ratio decreased, the company had more flexibility to increase dividends, as seen in the sharp rise in DPR in 2022. However, the fluctuations in DPR, even when the D/E ratio stabilized, indicate that dividend policy is also influenced by other factors such as profitability, strategic goals, and cash flow needs. Reducing leverage (lower D/E ratio) allowed the company to increase its dividends when financial conditions were favorable. The DER shows a significant positive impact on ATR. Initially higher DER was associated with higher ATR, indicating efficient use of leverage. Later on, decrease in DER resulted into decrease in ATR.

### 3.2 Discussion

From the overall analysis of the impact of DER on various financial metrics (ROA, ROE, EPS, Interest Coverage Ratio, Current Ratio, DPR, NPM and Asset Turnover Ratio), several key conclusions can be drawn about on company's financial strategy and performance for the period from March 2015 to March 2024:

## 1. Impact of Leverage on Profitability and Returns

ROE and ROA: The overall impact of DER on ROE and ROA over the period of ten years shows a positive relationship.

## 2. Debt Management and Profit Distribution

- **Net Profit Margin:** The overall impact of DER on NPM over the period of ten years shows a positive relationship.
- **Dividend Payout Ratio (DPR):** The overall impact of DER on DPR over the period of ten years shows a positive relationship. However, the fluctuations also indicate that dividend policy was influenced by other factors also, such as the company's reinvestment needs or strategic goals.

## 3. Efficiency in Asset Utilization

**Asset Turnover Ratio:** The overall impact of DER on ATR over the period of ten years shows a positive relationship. The Asset Turnover Ratio, initially decreased with the decrease in the D/E ratio, indicating that the KPR Mills Ltd. efficiency in generating revenue by using its assets diminished as it became less leveraged. However, in later years, this ratio stabilized, suggesting that the company found a balance between efficient asset use and maintaining lower debt levels.

## 4. Financial Stability and Risk Management

- **Interest Coverage Ratio:** The overall impact of DER on ICR over the period of ten years shows a positive relationship.
- **Current Ratio:** The overall impact of DER on CR over the period of ten years shows a positive relationship.

## 5. Strategic Shifts Over Time

EPS: The overall influence of DER on EPS over the period of ten years shows a positive relationship. EPS showed a mixed response with the D/E ratio, with significant fluctuations. This suggests that while reducing debt might have provided some benefits, other factors, such as changes in the shares outstanding or variations in net income, played a vital role in EPS determination.

## Conclusion

The overall analysis indicates that reducing the DER led to significant improvements in several financial

metrics, reflecting better profitability, stronger financial stability, and improved returns on both equity and assets. The company's strategy of reducing leverage over time appears to have been effective in enhancing its financial health, reducing risk, and improving its ability to reward shareholders through dividends. However, the analysis also highlights though reducing leverage was beneficial, it required careful management of other aspects of the business, such as maintaining asset efficiency and balancing profit distribution with reinvestment needs. The KPR Mills Ltd. ability to stabilize its financial performance in the later years, despite a lower D/E ratio, indicates a successful shift towards a more sustainable and balanced approach to growth and profitability. To conclude, the company's strategic focus on reducing debt paid-off by strengthening its financial position, enhancing profitability, and creating value for shareholders, although it required careful balancing of various financial and operational factors.

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