



## An Impact of DOL and DFL on Firm Performance of Bata Pakistan Limited: An Empirical Study

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### Abstract

Liquidity has a key importance in the financial management of the firm. This study checks the impact of leverage on firm performance. To check this the Bata Pakistan Limited has taken as case study. In this present research study, an attempt is made to study the relationship between leverage and profitability in Bata Pakistan Limited. The secondary data is collected to check the relation between the 2 variables. The financial statements of Bata Pakistan Limited have been collected over a period of 7 years (2012-13 to 2020-21). The data collected is analyzed by the percentages, averages, ratios and correlation analysis tools reveals that the research evidence of the study indicates that, that degree of operating leverage is statistically significant positive correlation with the ROA. It is observed that degree of financial leverage is positively correlated with the ROA. It means that degree of financial leverage of Bata Pakistan was not at optimum level. It is suggested to Bata to revise its capital structure which should include the optimum blend of equity and borrowed funds so that it has positive impact on Return on Assets. More over degree of combined leverage is positively correlated with ROA of Bata Pakistan. The financial performance of the Bata Pakistan is satisfactory. The Bata Pakistan is employing less debt funds so it can't get the financial leverage benefits. Therefore, the Bata Pakistan has to revise its capital structure so that financial leverage will help to maximize the shareholders wealth.

**Keywords:** Combined Leverage, Financial Leverage, Operating Leverage, Profitability and ROI

### 1. Introduction

Profitability and Leverage are two significant metrics which helps businesses and shareholder's to be aware of their financial health of their business. The concept of leverage is used by both investors and companies. Investors use leverage to significantly increase the returns that can be provided on an investment. In other words, instead of issuing stock to raise capital, companies can use debt financing to invest in business operations in an attempt to increase shareholder value. With help of leverage financial ratios, a company can calculate how much debt a company is leveraging in an attempt to maximize profits. Leverage is not always a negative thing. Utilizing leverage to finance business expansion and asset acquisition helps companies grow and thrive. However, if the business borrows excessively, it might not be able to settle all of its debts

#### 1.1. Importance of The Study

It is crucial to research how financial leverage affects profitability at Bata Pakistan since doing so can shed light on how it affects the company's financial performance. Profitability assesses a company's capacity to make money, whereas leverage refers to the use of debt financing to fund operations and expansion. Leverage and profitability have a complicated relationship that varies depending on a number of variables, including the financial structure of the business, the state of the market, and operational efficiency. Knowing how these two factors interact can enable Bata Pakistan to make wise financial choices, such altering the amount of debt it carries to improve its financial performance. Investors, creditors, and other stakeholders may find this information helpful in assessing Bata Pakistan's financial stability and health.

#### 1.2. Research Gap

With help of the study, we are able to understand that the degree of financial leverage is statistically significant positive correlation with ROA. It is observed that degree of financial leverage is correlated with ROA. With this information we will be able to identify steps Bata Pakistan need to take in order to achieve its desired financial leverage. This may involve adjusting its capital structure, such as raising equity capital, reducing debt, or both, or it may involve making operational changes to improve its financial problem.

#### 1.3. Main Research Questions

- What is relationship between financial leverage and company's financial performance?
- How changes in interest rate do affect financial leverage?
- How does financial leverage impact a company's cost of capital?
- How do firms determine the optimal level of financial leverage?
- How does financial leverage impact a company's dividend policy?

#### 1.4. Sub-Objectives of The Study

- Impact of financial leverage on risk and return.
- Types of financial leverage (operating Leverage, Financial Leverage, Combined Leverage).
- Measurement of Financial leverage (Debt-to-Equity Ratio, Debt-to-Capital Ratio).

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- Role of financial leverage in Corporate Finance
- Factors affecting the optimal level of financial leverage

## 2. Literature Review

The efficiency of either bond covenants or implicit capital market surveillance is diminished particularly in the presence of weak form market efficiency. When the market is unable to effectively monitor investment choices, it instead restricts the utilization of debt. As high-growth firms cannot be monitored effectively, they tend to have a lower reliance on financial leverage (Benjamin, 1985).

In order to examine the impact of leverage on shareholder return, this study purposes that profitability has a significant impact on financial leverage and on the returns of shareholders in the engineering sector in Pakistan (Shekhar, 1997).

Financial leverage, which is an increase in financial efficiency measured by the variation in return on equity, is dependent on both the return on assets and the cost of credit, such as interest rates. The financial leverage also reflects the effect of financial obligations from loans on the return on equity of a company (Brezeanu, 1999).

Financial risk assessment can be performed by examining the breakeven point and by analyzing variations in return on equity resulting from financial strategy, which can then be followed by the impact of financial leverage (Eros-Stark, 2001).

This study explores the relationship between financial leverage and its effect on shareholder return in the Pakistan cement industry. The findings indicate that a firm's profitability is positively correlated with its financial leverage. However, there has been a lack of research on the impact of financial leverage on cost of capital and firm valuation, making this paper an attempt to contribute to this area (Bhayani, 2006).

Financial leverage has the potential to both enhance shareholder return and increase a firm's risk. The use of financial leverage by a company aims to earn a higher return on its fixed funding than the cost of the funding itself (Pandey, 2007).

The effectiveness of risk management encompasses both the capability to seize opportunities and avoid negative economic impacts, and has a strong positive correlation with performance. This relationship is positively influenced by investment in innovation and lower financial leverage (Andersen, 2009).

This study found no effect of financial leverage on the cost of capital in the cement industry, meaning there is no significant linear relationship between financial leverage and cost of capital.

A high level of financial leverage enables shareholders to receive a high return on equity, but it also exposes them to a greater risk of substantial loss if the return on assets is low. Additionally, borrowing can limit a company's management autonomy, and creditors are concerned about the company's level of debt. Financial leverage works in conjunction with operating leverage, and their combined effect is equal to the product of the two (Nicoleta, 2010).

Financial leverage is influenced by factors such as sales, interest, cash flow, asset structure, interest coverage, firm size, retained earnings, earnings before interest and tax, and intrinsic value of shares (Franklin, 2011).

The study found that the overall effect of financial leverage on earnings per share of both high-leverage and low-leverage companies in Pakistan does not exist, and there is no impact on the price-earnings ratio for either high-leverage or low-leverage company (Negi Pushpa, 2012).

It is crucial to be aware that financial leverage is a risky method and involves unique challenges and expenses. There is no guarantee that a financial leverage strategy will be effective while it is being utilized (Pachori Sachchidanand CA, 2012).

The paper examines the relationship between residual income and leverage in banking sector worldwide and findings show that equity capital is positively related to residual income after controlling for various bank and country variables (Andrea Beltratti, 2015).

The study investigates the impact of capital structure on the profitability of manufacturing firms in china and reveals an inverted U-shaped relationship between financial leverage and profitability, with the positive impact being due to the tax shield and negative impact being due to financial distress (Dalci, 2018).

The research analyzes the effect of working capital turnover, liquidity, and leverage on the profitability of property, real state, and building construction companies in Indonesia. It is found that working capital turnover and liquidity have no effect on profitability while leverage has a negative effect (Rista Bintara, 2020).

The study examines the effect of capital structure on firm performance in Bangladesh and found a positive relationship between earnings per share and short-term debt, and a negative relationship between long-term debt and ROA. It concludes that capital structure has a negative impact on firm performance, consistent with the Pecking Order Theory (Md. Bokhtiar Hasan, 2014).

### 2.1. Under Pinning Theory

The Trade-off Theory best supports the entire concept of the relationship between leverage and profit, as it acknowledges both perspectives, the positive effect of leverage on profitability while also recognizing the risk associated with it. This theory states that a firm can increase their profitability by increasing their leverage, but that also increases the risk of bankruptcy.

The Trade-off theory provides a more nuanced understanding of the relationship between leverage and profit because it acknowledges that there is a trade-off between both of them. It recognizes that leverage can potentially increase the firm's profits, at the same it also contributes as increasing the risk of financial distress and bankruptcy. As a result, firms need to carefully balance and monitor their use of debt financing to ensure that they can achieve the desired level of profitability but along should also be minimizing the risk of financial distress for the safer side.

In conclusion, the Trade-off theory provides a more comprehensive understanding of the relationship between leverage and profitability as it offers both the positive and negative effects of leverage, and it is considered the most applicable when it comes to real world scenarios.

### **2.2. Degree of Financial Leverage (DFL)**

As the name suggests that this financial variable signifies the fixed cost funds (fixed interest and rate bonds) used to raise capital. It is used to analyse the sensitivity of business facing changes in their earnings per share and operating income. The higher the DFL the more volatile and erratic will be the earnings.

It is calculated as

$DFL = \text{percentage change in EPS} / \text{percentage change in EBIT}$

### **2.3. Degree of Operating Leverage (DOL)**

It is another financial metric which aids the businesses to analyze the sensitivity of operating income to sales. This illustrates how a change in sales may impact operational income for the company. A higher DFL will indicate that a small change in sales prompts a moderately large change in operating income.

It is calculated as

$DOL = \text{percentage change in EBIT} / \text{percentage change in Sales}$

### **2.4. Degree of Combined Leverage (DCL)**

As the name suggests that this a combination of degree of financial leverage (DFL) and degree of operating leverage (DOL) has on sales and net income. This ratio helps to determine the business to select the appropriate level of degree of financial leverage and degree of operating leverage to be applied in the business.

It is calculated as

$DCL = DFL * DOL$

### **2.5. Liquidity Ratio**

It is one of the most essential ratios as it helps the businesses to be able to calculate and be aware of their liquidity of the business. It helps to determine the ability of the business to pay short-term debts obligations.

### **2.6. Hypotheses**

- H1: There is significant positive correlation between Operating Leverage and Profitability of Bata Pakistan.
- H2: There is significant positive correlation between Financial Leverage and Profitability of Bata Pakistan.
- H3: There is significant positive correlation between combined leverage and Profitability of Bata Pakistan.

## **3. Research Methodology**

### **3.1. Population**

The population for this study consisted of all financial statements of Bata Pakistan Limited from 2012 to 2021. These financial statements contained information on the company's assets, liabilities, and equity, which were used to calculate the Debt-to-Equity (D/E) ratio, Return on Assets (ROA), and Return on Equity (ROE) for each year of the study period.

### **3.2. Sample/ Sampling Techniques**

Due to the availability of the entire population, the study used a census sampling technique. All financial statements of Bata Pakistan Limited from 2012 to 2021 were included in the study, and no sampling was done. This technique allowed for the inclusion of all available data, thus increasing the accuracy and generalizability of the results.

### **3.3. Data and Data Collection**

The data for this study were collected from the financial statements of Bata Pakistan Limited, which were publicly available on the company's website and other online databases. The variables of interest were the Debt-to-Equity (D/E) ratio, Return on Assets (ROA), and Return on Equity (ROE). The D/E ratio was used as a measure of leverage, while ROA and ROE were used as indicators of profitability.

### **3.4. Nature of The Study**

This study aimed to investigate the relationship between leverage and profitability in Bata Pakistan Limited using secondary data collected from the company's financial statements from 2012 to 2021. The study employed a quantitative research design, empirical study analysis and utilized a correlational analysis to identify any relationships between the variables of interest.

### **3.5. Data Analysis Techniques/ Data Processing and Analysis**

The collected data were analyzed using statistical software (e.g., Excel) to compute the D/E ratio, ROA, and ROE for each year of the study period. Descriptive statistics, such as means and standard deviations, were calculated to

summarize the data, and inferential statistics, such as correlation coefficients, were used to examine the relationships between the variables.

### 3.6. Ethical Considerations

While no sampling was done, certain financial statements were excluded from the analysis if they were incomplete or inconsistent. Additionally, financial statements that contained errors or were suspected of fraudulent activity were excluded from the analysis to ensure the integrity of the data.

### 3.7. Limitations

This study has several limitations that should be acknowledged. Firstly, the study used only secondary data, which may not accurately reflect the company's current financial situation. Secondly, the study focused only on the relationship between leverage and profitability and did not consider other factors that may affect the company's financial performance. Finally, the study was limited to Bata Pakistan Limited and may not be generalizable to other companies or industries.

## 4. Results and Discussion

**Table -1: Degree of Operating Leverage**

Year	Sales	Operation profit/(loss)	%EBIT	%Sales	DOL
2012-13	12,774,438	1,740,903	***	***	***
2013-14	13,767,156	1,919,321	10.25	7.77	1.32
2014-15	14,781,520	2,131,784	11.07	7.37	1.50
2015-16	15,082,171	2,140,580	0.41	2.03	0.20
2016-17	15,496,810	2,220,158	3.72	2.75	1.35
2017-18	16,795,231	2,307,940	3.95	8.38	0.47
2018-19	17,424,894	1,504,279	-34.82	3.75	-9.29
2019-20	11,710,771	-908,049	-160.36	-32.79	4.89
2020-21	13,983,497	807,279	-188.90	19.41	-9.73

The degree of operating leverage of the firm was in mixed trend during the study period from 2012 to 2021. The average of leverage ratio maintained by the Bata Pakistan is -1.16. The largest effect of DOL in the year 2014-2015 was 1.50 and 2019-2020 to 3.43 due to high percentage in EBIT than the percentage change in sales. The low effect of operating leverage in the year 2018-2019 to -9.29 and 2020-2021 to -9.73 due to high increase in sale than the increase in the EBIT. Therefore, it is observed that the firm is not maintaining optimum operating leverage. A low level or moderate operating leverage is good for the firm. It is suggested to the firm to maintain low operating leverage to moderate operating leverage which optimizes the percentage increase in sales than the percentage increase in the EBIT.

**Table -2: Degree of Financial Leverage**

Year	EPS(Rs)	Operation profit/(loss)((Rs.Cr)	%EPS	%EBIT	DFL
2012-13	163.02	1,740,903	***	***	***
2013-14	177.17	1,919,321	8.68	10.25	0.85
2014-15	191.2	2,131,784	7.92	11.07	0.72
2015-16	190.74	2,140,580	-0.24	0.41	-0.58
2016-17	201.65	2,220,158	5.72	3.72	1.54
2017-18	198.6	2,307,940	-1.51	3.95	-0.38
2018-19	144.03	1,504,279	-27.48	-34.82	0.79
2019-20	-82.98	-908,049	-157.61	-160.36	0.98
2020-21	72.23	807,279	-187.05	-188.90	0.99

The financial leverage of the firm was in mixed trend during the study period from 2012 to 2021. The average financial leverage ratio maintained by the Bata Pakistan is 0.61. The largest effect of DFL in the year 2016-2017 was 1.54 due to high percentage in EPS than the percentage change in EBIT. The low effect of financial leverage in the year 2015-2016 was (-0.58) and 2017-2018 was -0.38 due to high increase in EBIT than the increase in the EPS. Therefore, it is observed that the firm is not maintaining optimum financial leverage. A moderate financial leverage is good for the firm. It is suggested to the firm to maintain moderate financial leverage which optimizes high percentage in EPS than the percentage change in EBIT.

The degree of combined leverage of the firm was in mixed trend during the study period from 2012 to 2021. The average degree of combined leverage maintained by the Bata Pakistan is -1.02. The Bata attained a maximum DCL of 4.81 and a minimum level of -9.64. The percentage change in EPS is huge in 2020-21 where DCL was minimum and operating leverage was at lowest and negative level. In 2019-20, When DCL was 4.81, There was maximum change in EPS and operate leverage was less than the previous year .Therefore; it is observed that the firm is not maintaining optimum combined leverage. A moderate financial leverage and low operating leverage

is desirable the firm. It is suggested to the firm to maintain moderate combined leverage which optimizes high percentage increase in sales than the percentage increase in EPS.

**Table -3: Degree of Combined Leverage**

Year	% change in EPS	% change in Sales	DOL	DFL	DCL=DOL*DFL
2012-13	***	***	***	***	***
2013-14	8.68	7.77	1.32	0.85	1.12
2014-15	7.92	7.37	1.50	0.72	1.07
2015-16	-0.24	2.03	0.20	-0.58	-0.12
2016-17	5.72	2.75	1.35	1.54	2.08
2017-18	-1.51	8.38	0.47	-0.38	-0.18
2018-19	-27.48	3.75	-9.29	0.79	-7.33
2019-20	-157.61	-32.79	4.89	0.98	4.81
2020-21	-187.05	19.41	-9.73	0.99	-9.64

#### 4.1. Liquidity Ratios

These ratios measure the liquidity position or capacity of the firm that meet the short term obligations.

**Table-4 : Current Ratio**

Year	Current Assets (Rs.Cr)	Current Liabilities (Rs.Cr)	Current Ratio
2012-13	5,206,538	1,746,343	2.98
2013-14	5,909,432	1,977,587	2.99
2014-15	6,684,071	2,025,534	3.30
2015-16	7,585,132	2,264,332	3.35
2016-17	7,930,147	2,235,773	3.55
2017-18	8,970,446	3,051,863	2.94
2018-19	9,259,645	4,325,671	2.14
2019-20	7,602,604	3,883,160	1.96
2020-21	9,505,254	5,806,866	1.64

The current ratio of the firm was in mixed trend during the study period from 2012 to 2021. The average of current ratio maintained by the Bata Pakistan is 2.76. The average current ratio was more than standard norm of 2:1. The maximum level of current ratio was 3.55 in the year 2016-2017 and minimum level of current ratio was 1.64 in the year 2020-2021.

Therefore, it is observed that the liquidity position of the Bata Pakistan Ltd is satisfactory so the firm can meet its short term obligations effectively. An excessively high current ratio, above 3, could indicate that the company can pay its existing debts three times. It could also be a sign that the company isn't effectively managing its funds.

**Table-5 : Quick Ratio**

Year	Quick Assets (Rs.Cr)	Current Liabilities (Rs.Cr)	Quick Ratio
2012-13	2838236	1,746,343	1.63
2013-14	3179725	1,977,587	1.61
2014-15	3716872	2,025,534	1.84
2015-16	4683229	2,264,332	2.07
2016-17	4447793	2,235,773	1.99
2017-18	4999593	3,051,863	1.64
2018-19	5204318	4,325,671	1.20
2019-20	4789792	3,883,160	1.23
2020-21	5526483	5,806,866	0.95

The Quick Ratio of the firm was in mixed trend during the study period from 2012 to 2021. The average of Quick ratio maintained by the Bata Pakistan is 1.57. The average Quick ratio was more than standard norm of 1:1. The maximum level of Quick ratio was 2.07 in the year 2015-2016 and a minimum level of Quick ratio was 0.95 in the year 2020-2021. Therefore, it is observed that the liquidity position of the Bata Pakistan Ltd is satisfactory so the firm can meet its short term obligations effectively.

The debt equity ratio of the firm was in mixed trend during the study period from 2012 to 2021. The average of debt equity ratio maintained by the Bata Pakistan is 0.21. The average debt – equity ratio was less than standard norm of 2:1. Therefore, the firm will not get the leverage benefits. It is observed that Bata Pakistan used less debt capital than the equity funds. It is suggested to the firm to revise the capital structure by employing sufficient debt funds so that it has positive impact on the shareholders wealth.

The total Assets turnover ratio of the firm was in mixed trend during the study period from 2012 to 2021. The average of Total Assets turnover ratio maintained by the Bata Pakistan is 1.48. The higher total assets turnover ratio is desirable for any firm. Therefore, the firm did not utilize total assets effectively in generating the sales of the firm. It indicates that firm's

Management efficiency was not superior. It is suggested to the firm's management to optimize the utilization of total assets to generate maximum sales. Moreover, Management of the firm should focus on employing the appropriate total assets so that percentage change in sales should be more than percentage change in total assets.

Year	Total Debt (Rs.Cr)	Net Worth (Rs.Cr)	Debt-Equity Ratio
2012-13	142280	4500647	0.03
2013-14	158111	5255391	0.03
2014-15	162540	6051192	0.03
2015-16	157630	6662594	0.02
2016-17	161829	7126724	0.02
2017-18	149931	7491327	0.02
2018-19	4108109	7444589	0.55
2019-20	3749722	6372599	0.59
2020-21	3636216	6159421	0.59

Year	Sales (Rs.Cr)	Total Asset	TATR
2012-13	12,774,438	6,389,270	2.00
2013-14	13,767,156	7,391,089	1.86
2014-15	14,781,520	8,239,266	1.79
2015-16	15,082,171	9,084,556	1.66
2016-17	15,496,810	9,524,326	1.63
2017-18	16,795,231	10,693,121	1.57
2018-19	17,424,894	15,878,369	1.10
2019-20	11,710,771	14,005,481	0.84
2020-21	13,983,497	15,602,503	0.90

Year	Sales (Rs.Cr)	Net Working Capital (Rs.Cr)	WCTR
2012-13	12,774,438	3460195	3.69
2013-14	13,767,156	3931845	3.50
2014-15	14,781,520	4658537	3.17
2015-16	15,082,171	5320800	2.83
2016-17	15,496,810	5694374	2.72
2017-18	16,795,231	5918583	2.84
2018-19	17,424,894	4933974	3.53
2019-20	11,710,771	3719444	3.15
2020-21	13,983,497	3698388	3.78

The Working Capital turnover ratio of the firm was in mixed trend during the study period from 2012 and 2021. The average of Working Capital turnover ratio maintained by the Bata Pakistan is 3.25 times. The attained a maximum working capital turnover of 3.78 times in 2020-21 and a minimum value of 2.72 times in the 2016-17 years. The higher working capital turnover ratio is desirable for any firm. Therefore, the firm utilized working capital effectively in generating the sales of the firm. It indicates that firm's management efficiency was higher. It is suggested to the firm's management to continue the present utilization of working capital in future also.

Year	Net Profit /(Loss)	Total Asset	ROA(%)
2012-13	1,232,422	6,389,270	19.29
2013-14	1,339,412	7,391,089	18.12
2014-15	1,445,500	8,239,266	17.54
2015-16	1,442,016	9,084,556	15.87
2016-17	1,524,466	9,524,326	16.01
2017-18	1,501,409	10,693,121	14.04
2018-19	1,088,862	15,878,369	6.86
2019-20	-627,345	14,005,481	-4.48
2020-21	546,089	15,602,503	3.50

The firm's Return on Asset was in mixed trend during the study from 2012-13 to 2020-21. The ROA is used for measuring the overall profitability of a firm. As the primary objective of business is to maximize its earnings; this ratio indicates the extent to which this primary objective of business is being achieved. This ratio is of great importance to the present and

Prospective shareholders as well as the management of the firm. As this ratio reveals how well the resources of a firm being utilized, higher the ratio, better are the results. The firms attained maximum ROA of 19.29 % in 2012-13 and were a minimum of -4.48% in 2019-20. The average ROA maintained by Bata Pakistan was 11.86 % during the study period from 2012 to 2021. The firms overall efficiency is satisfactory as an Industry leader. Therefore, it is suggested to the firm to continue it in future also and try to enhance it by controlling losses simultaneously enhancing the total asset.

#### 4.2. Hypothesis Testing and Interpretation

##### Relationship between Leverage and Profitability

A statistical test called correlation examines the relationship or association between two or more variables. Simple correlation is a form of correlation that occurs when there is an association or relationship between two variables. Multiple correlations are a term utilized to describe correlation when there is an association or connection between several variables (more than two variables). KARLIN PEARSON .The range of the correlation coefficient is from -1 to +1.

	<i>DOL</i>	<i>ROA(%)</i>
<i>DOL</i>	1	
<i>ROA(%)</i>	0.20844	1
	<i>DFL</i>	<i>ROA(%)</i>
<i>DFL</i>	1	
<i>ROA(%)</i>	-0.2711	1
	<i>DCL</i>	<i>ROA(%)</i>
<i>DCL</i>	1	
<i>ROA(%)</i>	0.18599	1

The correlation is known as negative correlation and the Karl Pearson coefficient of correlation is negative when two variables are negatively linked. Karl Pearson's coefficient of correlation is positive when two variables are positively correlated, which is when the correlation is known as positive correlation. Zero correlation, typically known as the Karl Pearson coefficient, is the lack of any relationship between two variables. There is perfect negative correlation if the correlation coefficient between two variables is -1. A complete positive correlation exists if the correlation coefficient between two variables is one.

Correlation coefficient between DOL (Degree of Leverage) and ROA (Return on Asset) is 0.20844 which is statistically insignificant at 0.01 level of significant. Therefore, it is observed that degree of operating leverage is significant positively correlated with the ROA It means that degree of operating leverage of Bata Pakistan was at bad position. It is suggested to Bata to continue implementing its new operating leverage practice

The correlation coefficient between DFL (Degree of Financial Leverage) and ROA (Return on Asset) is -0.2711 which is statistically not significant at 0.01 level. Therefore, it is observed that degree of financial leverage is negatively correlated with the ROA. It means that degree of financial leverage of Bata Pakistan was not at optimum level. It is suggested to Bata to revise its capital structure which should include the optimum blend of equity and borrowed funds so that it has positive impact on Return on Investment.

The correlation coefficient between DCL (Degree of Financial Leverage) and ROA (Return on Asset) is 0.18599 which is statistically not significant at 0.01 level as the relationship between both variable is very weak. Therefore, it is observed that degree of combined leverage is positively correlated with the ROA but not significant statistically. It means that degree of combined effect of leverage of Bata Pakistan was not at optimum level. It is suggested to Bata to revise its capital structure which should include the optimum blend of equity and borrowed funds so that it has positive impact on Return on Asset.

#### 5. Conclusions

The Bata Pakistan is one of the largest retail firms in the footwear industry in Pakistan. The leverage analysis indicates the long-term financial performance. The research study concentrates on relationship between leverage and profitability has reveals that average ratio is maintained by Bata Pakistan is -1.16. Therefore, it is observed the firm is not maintaining optimum operating leverage. The average financial leverage ratio maintained by Bata Pakistan is 0.61. Therefore, it is observed that firm is not maintaining optimum financial leverage. The average degree of combined leverage maintained by Bata Pakistan is 1.01; therefore, it is observed that the firm is not maintaining optimum level of combined leverage. A moderate financial leverage and low operating leverage is desirable the firm.

With regard to liquidity, the average of current ratio maintained by Bata Pakistan is 2.76 which are more than standard norm of 2:1. Therefore, it is observed that the liquidity position of the Bata Pakistan Ltd is satisfactory so the firm can meet its short-term obligation effectively. The Quick Ratio of the firm was in mixed trend during the study period from 2006-07 to 2012-13. Moreover, the average of Quick ratio is 1.57 which is more than standard norm of 1. Therefore, it is observed that the liquidity position of Bata Pakistan is satisfactory so the firm can meet its short-term obligations effectively.

With regards to financial policy the average total debt capital employed by the Bata Pakistan was 8.34 percent over the total capital employed only. Therefore, it is observed that the firm is heavily depending on the shareholders fund to extent of 88.14 percent for its capital requirements and utilizing very less borrowed funds nearly to the extent of 11.86 percent. Hence, the firm did not get leverage of borrowed funds which enhances the wealth of the shareholders. Moreover, the average of debt equity ratio maintained by Bata Pakistan is 0.21. It is observed that Bata Pakistan uses less debt capital than equity funds and hence the firm can't get leverage benefits. The total assets turnover ratio of the firm was in mixed trend during the study period from 2006-07 to 2012-13. The average of total asset turnover ratio maintained by Bata Pakistan is 1.48. Therefore, the firm did not utilize

total assets effectively in generating the sales of the firm. It indicates that firm's management efficiency was not superior.

The average of working capital turnover ratio maintained by the Bata Pakistan is 3.25 times. The higher working capital turnover ratio is desirable for any firm. Therefore, the firm utilized working capital effectively in generating the sales of the firm. It indicates that firm's management efficiency was higher.

With regard to Profitability performance, the average ROA maintained by Bata Pakistan was 11.86 during the study period from 2006-07 to 2012-13. The firm's overall efficiency is satisfactory as an industry leader.

### 5.1. Recommendations

With regard to profitability and leverage relationship analysis it is observed that degree of operating leverage is significant positively correlated with ROA. It means that degree of operating leverage of Bata Pakistan was at bad position as it depicts a positive weak relationship between both variables. The degree of financial leverage is negative correlated with ROA and statistically not significant. It means that the degree of financial leverage of Bata Pakistan was not optimum level. It is found that degree of combined leverage is positively correlated with the ROA but not significant statistically. It means that degree of combined effect of leverage of Bata Pakistan was not at optimal level. It is suggested to Bata to revise its capital structure which should include the optimal blend of equity and borrowed funds so that is positive impact on Return on Assets. With regard to profitability performance, the performance of Bata is satisfactory but not with leverage as leverage is not maintained at optimum level.

### 5.2. Managerial Implications

Financial leverage can be very helpful in a way that it can help in making decisions regarding dividend policy by evaluating the impact of debt financing on the company's cash flow and profitability. By analyzing the company's leverage ratios, managers can determine the optimal dividend payout ratio and ensure that the company maintains strong financial position. It also helps in determine the optimal mix of debt and equity financing to achieve the company's financial objective. Managers can use financial leverage ratios, such as debt to equity ratio and debt-to-total assets ratio, to evaluate the impact of debt financing on the company's financial structure.

### 5.3. Future Research

In our case study we have explored multiple variables such as degree of financial leverage, degree of operating leverage, degree of combined leverage, liquidity ratios, and return on assets. These variables are of our interest as it helps to depict the relationship of leverage and profitability of Bata Pakistan.

ROI is another one good variable for making investment decisions and calculate profitability. ROI measures the return earned on an investment relative to the cost of the investment. A Company can improve its ROI by increasing profitability which can be achieved through various means such as increasing revenue or reducing cost. ROI can be very helpful in prioritizing investment decision by comparing the expected return on investment with the cost of capital of capital. ROI is very helpful variable for future study as it would enable the researchers to have much clear and detailed analysis about relationship between leverage and profitability of the firm.

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