Competitive Advantage and Risk: Impact on Indian Stock Market

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Abstract
The current study examines the performance of top 40 companies based on market capitalization for the period of 5 years (2015-2019). Competitive advantage is measured using asset turnover ratio and profit margin and risk is measured using financial leverage. Book to market ratio is used as a measure of market performance of the firms. The results indicate that profit margin has the most significant impact on the market performance in the Indian stock market.

Keywords: Competitive advantage, Asset turnover ratio, Book-Market ratio, Risk, Market performance, Profit margin

Introduction
A firm is said to have competitive advantage when it has established a method of offering the same benefit as a competitor but at lower cost or when it can provide additional benefits at the same cost as a competitor. The two forms of competitive advantage are cost advantage or differentiation advantage. In order to retain competitive advantage, a firm must have resources and skills that outweigh that of competitors.

Risk has always been a part of financial activity. Risk can be defined as the probability of an unpredictable or negative outcome. Any action or operation which results in any form of loss can be called as risk. Market performance of companies provides a basis for success of firms. The book to market ratio (BMR) is one of the measures of market performance. Firms analyse their book to market ratio with that of their peers as well as other companies outside the industry to obtain a sense of the size of the performance.
Literature Review

Fama & French (1995) document that book to market ratio is related to economic fundamentals. Firms with high (low) book values relative to stock prices are found to have low (high) earnings on assets. They also find that high-BMR firms tend to be persistently distressed, and low-BMR firms enjoy sustained profitability (growth stocks). Maji & Hazarika (2016) studied the performance of Indian banks for 39 commercial banks from 1999-2013. The study concluded that there was a strong correlation between returns on assets and book to market ratio. Fairfield & Yohn, (2001) studied the breakdown of profitability into asset turnover and profit margin and concluded that variations in asset turnover would be useful in book to market ratio forecasting. Baba & Manaf (2016) analyzed 100 leading firms in Malaysia from 2008 to 2012. They inferred that the operating profit margin had a significant effect on the firm value measured by book to market ratio. Arora et al., (2016) analysed the performance of the Indian manufacturing sector and found that managing risk through growth, sustainability performance, sales growth and asset growth were correlated to market performance. Sar (2019) investigated the impact of competitive advantage and risk on market performance of top 20 global companies. The study concluded that leverage had the greatest impact on market performance.

Objectives

• To determine asset turnover ratio, profit margin, financial leverage and book to market ratio.
• To find the competitive advantage and risk on market performance of top 40 companies of Indian stock market.
• To examine the impact of asset turnover, profit margin and financial leverage on market performance.

Research Design

A sample of top 40 companies based on market capitalization as on December 2019 has been taken for the study for a period of 5 years (2015-2019). Financial data was collected from annual reports of the companies. Asset turnover ratio, profit margin, leverage and book to market was determined from the available data. Asset turnover is used as a measure of cost advantage, profit margin is used for differentiation advantage and financial leverage is used to measure financial risk.

The analysis estimates regression equation. Book to market ratio (BMR$_{ij}$) is taken as dependent variable and asset turnover ratio (AT$_{ij}$), profit margin (PM$_{ij}$) and leverage (LEV$_{ij}$) is taken as independent variables. If any statistically significant association is found between the dependent and the independent variables, then it is concluded that competitive advantage and risk have a significant impact on market performance of firms.

$$BMR_{ij} = a + b.AT_{ij} + c.PM_{ij} + d.LEV_{ij} + u_{ij}, \ldots i=1,2,3 \text { and } t=2015, 2016, \ldots 2019$$

In the above equation ‘a’ is the constant term, b, c and d are the coefficients of AT$_{ij}$, PM$_{ij}$, LEV$_{ij}$. $u_{ij}$ is the error term.

Table 1: List of Top 40 Companies by Market Capitalisation

| Name of the Company                        | Rank on 31-12-2019 | Market Capitalisation on 31-12-2019 |
|-------------------------------------------|---------------------|------------------------------------|
| Reliance Industries Ltd                   | 1                   | 959727                             |
| Tata Consultancy Services Ltd             | 2                   | 846182                             |
| Hindustan Unilever Ltd                    | 3                   | 417657                             |
| Housing Development Finance Corporation Ltd| 4                   | 416013                             |
| Infosys Ltd                               | 5                   | 305834                             |
| SBI Life Insurance Company Ltd            | 6                   | 283803                             |
| Bharati Airtel                            | 7                   | 256603                             |
| Maruti Suzuki India Ltd                   | 8                   | 212506                             |
| Larsen & Toubro Ltd                       | 9                   | 183104                             |
| Asian Paints Ltd                          | 10                  | 166023                             |
| HCL Tech                                  | 11                  | 162494                             |
| ONGC                                      | 12                  | 157694                             |
| Bajaj Finserv Ltd                         | 13                  | 145718                             |
| Wipro Ltd                                 | 14                  | 143397                             |
| Nestle India Ltd                          | 15                  | 138725                             |
Asset Turnover Ratio = Sales / Total Assets

$H_1$: Asset turnover has a significant impact on market performance.

Profit margin is used to identify competitive advantage - differentiation advantage. It is an indicative of price premium associated with a firm’s products and services.

Profit Margin = (Net income / Net Sales) * 100

$H_2$: Profit margin has a significant impact on market performance.

Leverage has been used as a risk predictor of a company. To the degree that the company is able to fulfill its debt servicing obligation from the corporate cash flow, high leverage leads to higher equity returns. However, in an uncertain business environment, the use of higher debt levels to finance assets leads to higher Financial Leverage = EBIT / EBT

$H_3$: Leverage has a significant impact on market performance.

A company’s market performance is best understood by measuring its worth, or how valuable the company is. Book to market ratio is used as an indicator of firm’s market performance for a variety of purposes such as due diligence for mergers and acquisitions, establishing an acceptable investment portfolio for high net-worth investors, generating benchmark values for primary issues and foreign direct investors investments.

Book to Market Ratio = Shareholders Equity / Market Capitalization

**Discussions**

The correlation values, mean and standard deviation for the various measures are presented in Table 2.

Table 2: Correlation and Statistics

|                          | Asset Turnover | Profit Margin | Financial Leverage | Book - Market Ratio | Mean | Standard Deviation |
|--------------------------|----------------|---------------|--------------------|---------------------|------|-------------------|
| Asset Turnover           | 1              | -.349**       |                    |                     |      |                   |
| Profit Margin            | -.349**        | 1             |                    |                     |      |                   |
| Financial Leverage       | -.179*         | -0.05         | 1                  |                     |      |                   |
| Book - Market Ratio      | 0.022          | .278**        | -0.083             | 1                   |      | 2.69              |

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed)
It can be observed that the correlation coefficient between asset turnover and book to market ratio is not statistically significant. The correlation between profit margin and book to market ratio is 0.278 and statistically significant at 0.01 level. The firm’s ability to price products and services become relevant to market performance. The study also finds that there is no statistically significant correlation between financial leverage and book to market ratio.

Table 3 presents the model summary. The adjusted R square of 0.081 implies that 8% of variation in the market performance is explained by asset turnover, profit margin and leverage.

Table 4 presents the F Value and corresponding p-value indicating a statistically significant finding with p-value less than 0.05.

Table 5 indicates that profit margin impacts the dependent variable book to market ratio. The study rejects H₁ and H₃ as the p value is greater than the level of significance 0.05. This implies that asset turnover and financial leverage do not have significant impact on market performance. The study accepts H₂ as the p value is 0.000. Profit margin has the most significant impact with regression coefficient of 0.04 inferring that improved profit margins lead to better market performance and higher competitive advantage.

Conclusion
The study evaluates the performance of top 40 companies based on market capitalization for the period of 5 years. Competitive advantage is measured using asset turnover ratio and profit margin and risk is measured using financial leverage. Book to market ratio is used as a measure of market performance of a firm. The result indicates that profit margin has the most significant impact on the market performance. The result is in contrast to Dempsey (2010) and Tilehnouei & Shivaraj (2014) and Sar (2019).

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Table 3: Model Summary
| Model | R   | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-----|----------|-------------------|---------------------------|
| 1     | .309*| .095     | .081              | 4.1964630                |

a. Predictors: (Constant), Financial Leverage, Profit Margin, Asset Turnover

Table 4: ANOVA
| Model  | Sum of Squares | df | Mean Square | F     | Sig. |
|--------|----------------|----|-------------|-------|------|
| Regression | 363.27       | 3  | 121.09      | 6.87  | .000*|
| Residual | 3451.62      | 196| 17.61       |       |      |
| Total   | 3814.89      | 199|             |       |      |

a. Dependent Variable: Book - Market Ratio
b. Predictors: (Constant), Financial Leverage, Profit Margin, Asset Turnover

Table 5: Regression Coefficients

| Model          | Unstandardized Coefficients | Standardized Coefficients | t    | Sig. |
|----------------|----------------------------|---------------------------|------|------|
|                | B     | Std. Error | Beta |      |      |
| (Constant)     | 1.71  | 1.18       |      | 1.44 | .152 |
| Asset Turnover | .40   | .24        | .13  | 1.70 | .092 |
| Profit Margin  | .04   | .01        | .32  | 4.37 | .000 |
| Financial Leverage | -.54  | .84       | -.05 | -1.65| .519 |

Dependent Variable: Book - Market Ratio
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