Returns from Financial Statement Analysis Among Low Book-to-Market Stocks: Evidence from India

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The motivation behind this paper was to see if financial statement analysis could be employed by investors to design portfolios of low book-to-market stocks that could help them earn excess returns in the Indian context. Using a modified framework from Mohanram (2005), which employs a G_SCORE, capable of separating ex post *winners from losers among low book-to-market companies, and portfolio formation on the basis of the G_SCORE, we find convincing evidence that financial statement analysis can help investors form profitable portfolios among low book-to-market stocks. We show that portfolios with high G_SCORE (6 to 7) provide outstanding returns both on absolute and risk-adjusted basis and far outperform the markets. At the same time, portfolios with low G_SCORE (0 to 3) offer very poor returns and always underperform the markets on both absolute and risk-adjusted returns. Thus a growth investor could shift his distribution of returns rightwards by investing in portfolios of only high G_SCORE stocks; simultaneously shorting low G_SCORE portfolios would further amplify the returns.*

Introduction

Investment strategies that derive from signals interpretable through financial statement analysis have been quite popular in literature. Notable among them have been Ou and Penman (1989), Lev and Thiagarajan (1993). In addition, simple models using market-based signals have also been popular among investors and analysts (for example, see Lopes and Galdi, 2007). One of the most popular market-based signals has been the book-to-market ratio and it has been established that high book-to-market stocks/portfolios, popularly called value stocks/portfolios, outperform the markets.

On the other hand, the low book-to-market strategy has been equally popular and was probably motivated by professional investors' herding on growth stocks (low book-to-market stocks) expecting that herding would lead to return continuation in growth stocks with strong appreciation in past. However, a practical problem that can potentially be faced by many investors is: "Are all low book-to-market stocks, growth stocks?" Certainly not; as

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Mohanram (2005) emphasized, less than 48% of all low book-to-market stocks[1] earned positive returns in two years following the formation of the portfolio. Aspris *et al.* (2013) found similar performance in the Australian context (44% stocks) as also Athanassakos (2013) in the Canadian context (50% stocks). Clearly, there is something more than just the book-to-market ratio for a stock to be classified as growth stock and this 'something' could help investors discriminate, *ex ante*, between eventual strong and weak stocks (Aggarwal and Gupta, 2009).

Financial statement analysis attempts to separate *ex post* winners from losers on the basis of information from financial statements that is not correctly reflected in stock prices. While such analysis has been quite successfully applied on high book-to-market stocks in different countries (for example, see Piotroski, 2000; Aggarwal and Gupta, 2009; and Aspris *et al.*, 2013), *ex ante*, it is not clear whether traditional financial statement analysis will be as effective for low book-to-market stocks because these stocks attract the attention of market intermediaries, stock analysts and institutional investors. As a result, they generally remain in business news and any information about them travels fast. Apart from financial statements, these companies tend to have other sources of disclosure. Also, the rapid growth in many low book-to-market companies renders current fundamentals less important than other non-financial measures, which might lead to many stocks being overvalued. In addition, low book-to-market stock valuations are generally based on long-term forecasts of sales and cash flows, where non-financial information plays a major role. Moreover, most of the predictability in these stock returns appears to be momentum-driven (see Asness, 1997), rendering traditional financial statement analysis based on profitability and cash flows futile.

It has been documented that stock markets tend to naively extrapolate current fundamentals of growth stocks (Dechow and Sloan, 1997) and also tend to ignore the implications of conservatism in accounting for future earnings (Penman and Zhang, 2002). In this light, Mohanram (2005) developed signals related to naïve extrapolation and accounting conservatism, and combined them with traditional financial statement analysis of earnings and cash flows. He then successfully demonstrated application of this combined framework for separation of winners and losers among all low book-to-market stocks.

As the arguments related to low book-to-market stocks, as presented above, are universal in nature, Mohanram's (2005) framework of financial statement analysis for low book-to-market stocks thus should work well in all markets, including emerging markets where market efficiency tends to be lower and amount of predictability of returns tends to be higher (see Coorey and Wickremasinghe, 2007).

India, a strong emerging market, offers a unique case in this direction. This is so because on the one side it suffers from weak efficiency (for example, see Gupta and Basu, 2007) and has suffered from major scams including Harshad Mehta scam, Ketan Parekh scam, and the latest involving National Spot Exchange Limited. On the other side, the country is a constituent of the BRICS nations and has attracted huge investments and trading activity

[1] Though literature distinguishes, in this paper, the terms low book-to-market stocks/growth stocks and growth companies have been used interchangeably.

from all over the world to the extent that National Stock Exchange (NSE) gained the top spot in world bourses in terms of volume of equity trade.[2] This could not have happened if the markets were still prone to scams (Aggarwal and Gupta, 2009). Amid these conflicting scenarios, one wonders if financial statement analysis could be useful in creating a portfolio of low book-to-market stocks that could earn excess returns in Indian capital market. In the absence of any concrete research, we take a step in this direction.

In the rest of the paper, first we briefly review past research on financial statement analysis. We then present the data and methodology detailing the fundamental signals, selection of companies and performance analysis. In the subsequent section, we present the empirical results followed by conclusion.

Literature Review

The roots of financial statement analysis can be dated back to Graham and Dodd (1934) in which the authors argued about the importance of the fundamental factors in share price valuation. The dividend discount model developed by Gordon (1962) and Ohlson's (1995) residual income valuation model provided further building blocks for the same. Other researches focused on the fundamental analysis by calculating certain multiples for a set of benchmark firms and finding the implied value of the company of interest by these benchmark multiples (for instance, see Ou and Penman, 1989; Kaplan and Ruback 1995; Gilson *et al*., 2000; and Liu and Thomas, 2002). However, single financial multiple or ratio might not capture the complete aspects of the company and thus researchers also constructed composite indicators using various fundamental information of the companies (for example, see Vu, 2013). In this very direction, a more dynamic investment approach involving use of multiple pieces of information from the company's financial statements was suggested by Ou and Penman (1989). They showed that an array of financial ratios created from historical financial statements could accurately predict future changes in earnings. Similarly, Holthausen and Larcker (1992) showed that a similar statistical model could be used to successfully predict future excess returns directly. However, extremely complex methodologies and need for vast amount of historical information made use of these approaches limited. To overcome these calculation costs and to avoid over fitting of data, Lev and Thiagarajan (1993) utilized only 12 financial signals and provided evidence that these fundamental signals were correlated with contemporaneous returns after controlling for current earnings innovations, company size, and macroeconomic conditions.

However, Abarbanell and Bushee (1997) contended that markets may not completely capture value-related information in a timely manner and therefore investigated the ability of Lev and Thiagarajan's (1993) signals to predict future changes in earnings and future revisions in analyst earnings forecasts. They found evidence that these factors could explain both future earnings changes and future analyst revisions. Consistent with these findings, Abarbanell and Bushee (1998) documented that an investment strategy based on these 12 fundamental signals yielded significant abnormal returns.

[2] World Federation of Exchanges, http://www.world-exchanges.org/home/index.php/statistics

Piotroski (2000) aggregated the high book-to-market effect to financial statement analysis and showed that the mean return earned by a high book-to-market investor could be increased by at least 7.5% annually through the selection of financially strong high book-to-market companies. Mohanram (2005) combined traditional fundamental analysis with measures tailored for low book-to-market companies and documented significant excess returns. Application of Piotroski (2000) and Mohanram (2005) methodologies were later on carried out by a large number of studies in different settings and contexts (for example, see Beneish *et al*., 2001; Lopes and Galdi, 2007; Aggarwal and Gupta, 2009; Vanstone *et al*., 2009; Nossa *et al*., 2010; Lee *et al*., 2011; Woodley *et al*., 2011; Aspris *et al*., 2013; and Goodman *et al*., 2013).

Given the scenario that has prevailed in India, it is not obvious that financial statement analysis for low book-to-market stocks in India will hold the same relevance as documented outside India. Though many other investment strategies such as 'Dogs of the Dow' strategy (Sahu, 2001), month and turn-of-mouth effect (Karmakar and Chakraborty, 2000), contrarian and momentum strategies (Sehgal and Balakrishnan, 2002), size of stock effect (Mohanty, 2002) have been found to be fruitful, evidence on the success or failure of financial statement analysis, especially for low book-to-market stocks is rather scant. A systematic research in this direction is therefore, warranted.

Data and Methodology

It has been observed that low book-to-market stocks generally perform poorly after portfolio formation (see Mohanram, 2005; Athanassakos, 2011; and 2013). However, large variation in the performance of these stocks has also been observed with some stocks doing exceptionally well. Intuitively, financial/economic variables that reflect changes in the fundamentals of these companies should be helpful in predicting future performance. Using this logic, certain signals based on publicly available financial statements have been incorporated in this paper to identify promising growth stocks. No reference to any market-based indicators or analyst forecasts or private information is made.

Specifically, we adapted the methodology suggested by Mohanram (2005) who built a composite score (G_SCORE) comprising eight fundamental signals that can help separating potential winners from loser low book-to-market stocks (see Mohanram, 2005). Depending on the signal's impact on future stock price and performance, each signal realization is classified as 'positive' or 'negative'. If the signal realization is positive a binary indicator variable for that signal is equal to one (1); zero (0) if negative. Whether a signal is positive or negative, an individual company's information was compared with industry contextual information. This falls in line with the approach followed by Mohanram (2005) and recommendations of Beneish *et al*. (2001) and Soliman (2003). The aggregate of these signals is termed as the G_SCORE, which is nothing but the sum of the individual binary signals. The fundamental signals are briefly discussed here (for greater details refer to Mohanram, 2005).

Signals Related to Profitability

These signals are based on the premise that currently profitable companies are fundamentally strong and are likely to maintain their strength if current profits have any bearing on future profits. The three measures used under this category include ROA, CFO, and ACCRUAL. While ROA is defined as the net income before extraordinary items scaled by beginning of year total assets, CFO is the cash flow from operations also scaled by beginning of the year total assets. The signals G_ROA and G_CFO would be respectively positive if a company's ROA and CFO are greater than the industry median, and negative otherwise. Literature has clearly highlighted the importance of amplifying net incomes by positive accruals adjustments (for example, see Sloan, 1996). Therefore, a third measure that captures the quality of earnings of the company was ACCRUAL, defined as cash flow from operations less net income before extraordinary items scaled by beginning of the year total assets. The signal G_ACCRUAL is positive if a company's ACCRUAL is more than zero, and negative otherwise.

Signals Related to Naive Extrapolation

The importance of stability in earnings has been well documented in the literature (for example, see, Barth *et al.,* 1999). Companies with stable earnings are likely to perform better in the markets vis-à-vis those with unstable earnings (see Huberts and Fuller, 1995). In this light, we define VARROA as variance in net income of a company. For this purpose, a company's variance in net income over the last five years was compared with the industry median. The signal G_VARROA is positive if a company's variance of its net income is less than the industry median, negative otherwise. On the same lines, a company that had a stable growth is also likely to be rewarded by the markets. Therefore, we define VARSGR as the variance of sales growth of a company. Here, the choice of sales over earnings was made because accounting practices have less impact on revenues than earnings (see Damodaran, 2001). As earlier, the sales growth variance was captured as variance of the sales growth rate of a company over the last five years and compared with industry median. The signal VARSGR is positive if a company's variance of its sales growth is less than the industry median, negative otherwise.

Signals Related to Accounting Conservatism

Accounting conventions related to expenditures on items such as R&D, advertising, capital expenditures lead to depressing of current earnings and book values. However, it is also established that these expenses create intangible assets and boost future sales and cash flows. Thus it can be concluded from these arguments that a company has low book-to-market ratio for accounting reasons and not overvaluation. In this light, the signals G_R&D and G_CAPEX are assigned a positive value if a company's R&D and capital expenditure is more than the industry median, negative otherwise.

Under this very head, Mohanram (2005) also used the signal related to advertising intensity and emphasized that if a company's expenditure on advertising is more than industry median, it should be treated as a positive signal. However, it is a well-known fact that only consumer goods/services companies indulge in large-scale advertising and not those who are into

industrial goods/services. Therefore, it is likely that a company like Infosys or TCS or RIL scores less in this scoring system simply because it does not advertise. A counter argument could be that the comparison is being made with industry median. Therefore, all companies would be similar; the one that advertises the most would get selected. However, we contend that a company should not be valued on the basis of a parameter that does not hold any importance for it or the whole industry. In this light, we deviate from Mohanram (2005) and exclude the parameter related to advertising expenses.

The Composite Score

As said earlier, the composite score called as G_SCORE represents the sum of all indicator variables mentioned above. Therefore,

$$G\_SCORE = G\_ROA + G\_CFO + G\_ACCRUAL + G\_VARROA + G\_VARSGR + G\_R\&D + G\_CAPEX$$

Using this composite figure, G_SCORE can range from 0 (all negative signals) to 7 (all positive signals). Low G_SCORE represents companies with poor expected future performance and therefore stock returns, while high G_SCORE represents companies with expectations to outperform the market.

Portfolio Formation

The research was carried out for the period of financial year ending 2011 to financial year ending 2013. As on March 31, 2011, all the companies listed on NSE were arranged in ascending order of book-to-market ratio using the CMIE database Prowess (some studies used price-to-earnings ratio; for example, see Athanassakos, 2013). The companies were then divided into five quintiles. As the study focused on low book-to-market companies, first quintile (that is, lowest book-to-market ratio) was utilized for the study. Out of these, 111 companies which met the following criteria were included in the sample:

- Company has a sufficient stock price (no penny stocks).
- Company has a positive book-to-market ratio.
- The company did not delist during the period under study.
- All the data as required in the study is available.

All the seven fundamental indicators were calculated for all these companies using financial statements for the financial year 2010-11 and the composite G_SCORE was arrived at. Table 1 shows the distribution of G_SCORE among these companies.

Table 1: Distribution of G_SCORE Among the Selected High Book-to-Market Companies

G_SCORE	0	1	2	3	4	5	6	7
No. of Companies	1	3	7	24	29	26	12	9

It can be visualized that many companies were clustered around the middle as 79 companies out of 111 (71%) are in the range of 3 to 5. These companies offered 40-70% positive fundamental signals (in other words, they offered conflicting signals). A much smaller number of companies however, had large or small G_SCORE, reflecting a very low or very high percentage of positive signals.

Out of these 111 companies with different G_SCORES, we developed three portfolios. These portfolios, hereafter referred to as portfolio 1, portfolio 2, and portfolio 3, consisted of companies having G_SCORE in the range of 0-3, 4-5, and 6-7, respectively. Here, we deviated from the past researches which put all low book-to-market companies with same G_SCORE into one portfolio; thus creating seven to eight portfolios with G-SCORE ranging from zero to eight (for example, see Mohanram, 2005; Aspris *et al*., 2013; and Athanassakos, 2013) and studied the performance of all companies in each G_SCORE portfolio. We also deviated in terms of number of companies in each portfolio as having hundreds of stocks in each portfolio is possible only in academic researches. For this study to have practical implications, we limited each portfolio to have equally weighted 18 companies randomly selected from the respective G_SCORE groups (an effort however, was made to have maximum diversification). This is supported by the fact that diversification beyond 18 to 20 stocks only leads to additional transaction costs.

Many researchers have also focused on only buying high G_SCORE portfolio (for example, see Athanassakos, 2013) or buying high G_SCORE portfolio while simultaneously shorting low G_SCORE portfolio as low G_SCORE company stocks are expected to perform negatively (for example, see Lopes and Galdi, 2007; and Aspris *et al*., 2013). However, owing to short sales constraints in the Indian context and to see the relative impact of G_SCORE on portfolio performance, we went long on all the portfolios.

Performance Analysis

To calculate returns from each of the portfolio, annualized stock-specific yields were calculated on a buy-and-hold basis for a period of one year and two years following portfolio formation. Suitable adjustments were for any stock splits, dividends distribution, etc. As the portfolios were equally-weighted, stock-specific yields were added to arrive at portfolio yields. As suggested by Piotroski (2000), portfolios were formed after three months of financial year-end so that all the information required was available. Thus, the period under study for portfolio returns was from July 2011 to June 2013.

The performance of the portfolios was studied for holding periods of one year and two years. We avoided shorter holding periods of three months, six months or even nine months. This is so because equity investments are generally made for medium to long-term horizons, especially when stock selection has been made using fundamental analysis. Moreover, it falls in line with the relevant literature. To study the performance of the portfolios both absolute and market-adjusted returns were calculated. Market-adjusted returns were calculated in two ways, viz., by calculating absolute excess returns over the market returns (see Mohanram, 2005; Lopes and Galdi, 2007; and Athanassakos, 2013) and by calculating required returns as

driven by market risk of the portfolios (see Aggarwal and Gupta 2009; and Aspris *et al*., 2013). For this purpose, beta adjusted returns with respect to two major indices of NSE, namely, S&P CNX Nifty and S&P CNX 500 were utilized.

Results and Discussion

Pearson correlation coefficients between individual fundamental signals, overall G_SCORE and two years holding period returns were computed. The same are presented in Table 2. As expected, a high correlation of 0.34 was observed between G_SCORE and returns pointing towards importance of G_SCORE as a determinant of performance. Returns were found to be correlated with CFO and CAPEX (correlation coefficient of 0.16 and 0.12, respectively) Apart from this, returns were seen to have negative correlation of 0.11 with VARROA.

Table 2: Correlations Among Fundamental Signals

	ROA	CFO	ACCRUAL	VARROA	VARSGR	R&D	CAPEX	G_SCORE	2-Year Return
ROA	1.00								
CFO	0. 27	1.00							
ACCRUAL	0.03	0.18	1.00						
VARROA	0.21	0.15	–0.08	1.00					
VARSGR	0.28	0.31	–0.06	0.42	1.00				
R&D	–0.12	–0.09	–0.14	–0.07	0.03	1.00			
CAPEX	0.16	0.21	0.03	0.11	0.13	0.09	1.00		
G_SCORE	0.18	0.34	0.24	–0.14	–0.12	–0.09	–0.02	1.00	
2-Year Return	0.08	0.16	0.03	–0.11	–0.09	0.07	0.12	0.34	1.00

Portfolio Performance

The major objective of the study was to test the applicability of financial statement analysis to low book-to-market stocks in Indian conditions in a way that could practically benefit the common investors. This was why three portfolios with different G_SCORE ranges were created. The following text describes the performance of these portfolios. Table 3 provides the mean values of the seven fundamental signals for the three portfolios separately. To check for significance of difference among the three portfolios, Kruskal-Wallis statistics and related significance levels have also been shown. As seen in Table 3, the distribution of fundamental signal values was non-normal and the relevant literature has evidenced concerns regarding use of parametric tests under these conditions (for example, see Kothari and Warner, 1997). Therefore, nonparametric test statistics were applied (Kruskal-Wallis test and not ANOVA).

It can be observed that except for ROA and VARSGR, the three portfolios differ significantly on all other fundamental signals. Accordingly, it can be expected that these

fundamental signals and the G_SCORE therefore, should be able to discriminate among future performance of the three portfolios.

Table 3: Comparison of Portfolios on Different Fundamental Signals

	ROA	CFO	ACCRUAL	VARROA	VARSGR	R&D	CAPEX
Portfolio 1 (G_SCORE 0-3)	12.22	0.05	–1149.25	62.66	749.86	1026.10	145.71
Portfolio 2 (G_SCORE 4-5)	15.84	0.10	–395.07	22.78	418.98	716.84	254.68
Portfolio 3 (G_SCORE 6-7)	13.70	0.14	483.02	18.56	179.13	1499.79	281.03
KW Statistics	1.51 ($p<0.471$)	46.59 ($p<0.001$)	28.40 ($p<0.001$)	8.74 ($p<0.012$)	5.39 ($p<0.067$)	14.48 ($p<0.001$)	10.83 ($p<0.002$)

The absolute returns from the portfolios for one year and two years holding period have been provided in Table 4; returns have been expressed in the form of annualized yield. As can be seen, portfolio 3 outperformed the other two portfolios over both one year and two years horizon.

Table 4: Returns from the Three Portfolios

Portfolio	Annualized Yield (%)	
	1 Year Holding Period	2 Years Holding Period
Portfolio 1 (G_SCORE 0-3)	(11.99)	(–1.58)
Portfolio 2 (G_SCORE 4-5)	(7.37)	2.52
Portfolio 3 (G_SCORE 6-7)	(2.66)	8.34

Literature clearly outlines the importance of comparing returns with benchmarks and evaluating the performance of a portfolio in the light of its risk. Following the same, excess returns from the three portfolios over the market returns, both on absolute and risk-adjusted basis, were therefore computed. Table 5 shows the returns from the portfolios vis-à-vis S&P CNX Nifty and S&P CNX 500 on absolute basis; again the returns have been expressed in the form of annualized yield.

Portfolio 1 performed poorly as it underperformed the two indices using both one year and two years holding period. However, portfolio 2 showed mixed response in terms of excess returns over the two market indices. For one year holding period, portfolio 2 underperformed

Table 5: Comparison of Absolute Portfolio Returns with Selected Market Indices

Portfolio	Holding Period	Annualized Portfolio Yield (%)	Market Index	Annualized Market Yield (%)	Excess Portfolio Returns (%)	Portfolio Performance
Portfolio 1	1 year holding	(11.99)	S&P CNX Nifty	(6.20)	(5.79)	Underperform
			S&P CNX 500	(7.56)	(4.43)	Underperform
	2 years holding	(1.58)	S&P CNX Nifty	2.37	(3.95)	Underperform
			S&P CNX 500	0.55	(2.13)	Underperform
Portfolio 2	1 year holding	(6.37)	S&P CNX Nifty	(6.20)	(0.17)	Underperform
			S&P CNX 500	(7.56)	1.19	Outperform
	2 years holding	3.52	S&P CNX Nifty	2.37	1.15	Outperform
			S&P CNX 500	0.55	2.97	Outperform
Portfolio 3	1 year holding	(1.66)	S&P CNX Nifty	(6.20)	4.54	Outperform
			S&P CNX 500	(7.56)	5.90	Outperform
	2 years holding	10.34	S&P CNX Nifty	2.37	7.97	Outperform
			S&P CNX 500	0.55	9.79	Outperform

the S&P CNX Nifty but outperformed the S&P CNX 500. However, for two-year holding period, portfolio 2, outperformed both the indices. Portfolio 3, on the other hand, remained consistent in its performance as it outperformed both the indices for one year as well two years holding periods. Moreover, the size of outperformance was much larger as compared to portfolio 2. This signifies the strength of G_SCORE in crafting out superior low book-to-market portfolios.

As a second step, risk-adjusted returns in the form of β-adjusted portfolio returns were computed for all the portfolios. Table 6 presents a comparison of the actual portfolio returns vis-à-vis β-adjusted portfolio returns with respect to the two market indices (portfolio β have been provided in Appendix). The returns for a holding period of two years have been presented.

The picture did not change much as portfolio 1 was not able to meet its risk-adjusted required returns for both the indices and resulted in a net loss. While portfolio 2 was able to meet the risk-adjusted return requirements with respect to both the indices, the degree of outperformance was much less when compared to portfolio 3. Portfolio 3 provided more than double the returns offered by portfolio 2.

This proves beyond doubt that portfolio consisting of companies with high G_SCORE should outperform portfolios consisting of companies with low G_SCORE. In fact, low G_SCORE portfolios eventually turn out to be losers on both absolute and risk-adjusted basis. Therefore, a growth investor who focuses on high low book-to-market companies could shift his returns distributions rightwards by going long on a portfolio of low book-to-

Table 6: Comparison of Actual Returns and β-Adjusted Returns					
Portfolio	**Actual Annualized Yield (%)**	**Market Index**	**Required β-Adjusted Yield (%)**	**Excess Yield Over β-Adjusted Yield (%)**	**Portfolio Performance**
Portfolio 1	(1.58)	S&P CNX Nifty	0.69	(2.27)	Underperform
		S&P CNX 500	1.57	(3.15)	Underperform
Portfolio 2	3.52	S&P CNX Nifty	1.09	2.43	Outperform
		S&P CNX 500	(1.05)	4.57	Outperform
Portfolio 3	10.34	S&P CNX Nifty	1.50	8.84	Outperform
		S&P CNX 500	(0.05)	10.39	Outperform

market companies having high G_SCORE and simultaneously shorting low G_SCORE portfolio. These findings fall in line with researches in the US (for example, see Mohanram, 2005) or Canadian (for example, see Athanassakos, 2013) or Australian (for example see, Aspris *et al.*, 2013) context and underline the fast pace with which Indian security markets are acquiring global character.

Conclusion

The objective of this paper was to see if financial statement analysis could be employed by investors to craft portfolios of low book-to-market stocks that could earn excess returns in India. The strategy we adopted is an adaptation of Mohanram (2005) who identified eight fundamental signals to form a composite score called as G_SCORE capable of separating *ex post* winners from losers among low book-to-market companies in the US context. However, it was not clear whether such a strategy could be replicated in Indian stock markets. This is so because there are evidences that market efficiency in India is at the most weak form. In addition, the Indian market has shown dicey characteristics as on the one side it weathered scams like Harshad Mehta scam, Ketan Parekh scam, and the latest of National Spot Exchange Limited, and on the other side, NSE in India is the largest in the world in terms of equity trade volume. India is still among the most favored investment destinations in the world. Amid these conflicting scenarios and scant evidence on the usefulness of financial statement analysis in India, the environment offers a unique challenge to the usefulness of financial statement analysis.

Using a modified G_SCORE framework from Mohanram (2005) and portfolio formation using G_SCORE, we find convincing evidence that a financial statement can help investors form profitable portfolios among low book-to-market stocks. We show that portfolios with high G_SCORE (6 to 7) provide outstanding returns both on absolute and risk-adjusted basis and far outperform the markets. At the same time, portfolios with low G_SCORE (0 to 3) offer very poor returns and always underperform the markets on both absolute and risk-adjusted returns. Thus, a growth investor could shift his distribution of returns rightwards by

investing in portfolios of only high G_SCORE stocks; simultaneously shorting low G_SCORE portfolios would further amplify the returns.

During the period under the study, India witnessed extremely choppy markets. Therefore, momentum or investors herding could not be the reason behind the success of high G_SCORE portfolio. Had momentum or investor herding been the reason behind the success, all portfolios should have performed well. Obviously, it were the strong fundamentals of the portfolio constituent companies that were appropriately picked by financial statement analysis.

While this research has established the usefulness of the financial statement analysis in identifying potential winners broadly among low book-to-market stocks, further research needs to be carried out to check the robustness of the approach across firm size, analyst following, inclusion/exclusion of IPO companies and even specific industrial sectors. ⊥

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