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CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

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SIZE EFFECT ANOMALY IN INDIAN STOCK MARKET: TIME SERIES ANALYSIS

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ABSTRACT
The study attempts to find out investment strategy based on size effect results in companies to outperform the market index. The study aims to find out whether the size effect anomaly is present in Indian stock market. The sample consists of companies listed in BSE 500 Index from the period of March 2002 to March 2014. Portfolios are constructed based on net sales and fixed assets. The monthly returns on all the securities are compared against the benchmark of Sensex monthly returns. Correlation and regression analysis are used as statistical tools for data analysis. The findings reflect the presence of abnormal returns for large stocks portfolio but its absence for small stocks portfolios. Therefore, there is absence of size effect in Indian stock market. The two main limitations are: 1. the study is carried out only for the period of thirteen years. 2. Only Sensex as benchmark is considered. The research paper is empirical in nature.

KEYWORDS
size Effect, portfolio construction.

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INTRODUCTION
Efficient market hypothesis (EMH) assumes that since, securities prices fully reflect the market information both public and private; no trading strategy can be designed to take benefit of earning abnormal profits. The theory accepts that investors behave rationally and share prices follow a random pattern. However, recent trends in patterns of return challenge the EMH theory and helps trading strategists/investors to take benefit of earning higher returns, which incidentally indicates the weak efficient market. Furthermore, some investment strategies formed on the basis of certain measures have given abnormal return on portfolio. Detection of unusual return patterns has given origin to market anomaly which challenges the set assumption of efficient market and can be predicted. Market anomalies are return patterns which contradicts efficient market hypothesis that are spotted over the period of time. These are also called Capital Assets Pricing Model (CAPM) anomalies; detection of which has raised the question on EMH and applicability of CAPM in today's time period.

There are only few studies done, pointing out its limitations. Berk (1996) identified factors other than market/systematic risk explaining the expected return on assets which are also detected by many researchers later. Some of the prominent anomalies are size effect, value effect, seasonal effect, tax effect, momentum effect, dividend effect and leverage effect.

REVIEW OF LITERATURE
Fama-MacBeth (1973) attempted to examine the relationship between risk and return for NYSE stocks. The study noted a significant negative relation between average stock returns and their market value. The regression results of the study confirm "efficient capital market" reflecting all available information. Banz (1981) on examining the relationship between the market value and average return of NYSE common stocks; found higher risk adjusted returns for small cap stocks than large cap stocks. He reported this as size premium of 0.40% per month during the period of 1936-1975. Reinganum (1981) also tried to explain the relation between the market value and abnormal returns for NYSE and Amex stocks. The study confirmed monthly size effect of 1.77% for smaller firms for the sample size of 566 Amex and NYSE firms for the period 1963-1977. Brown, Kleidon and Mersh (1983) reported in their study that small cap firms yields more returns in contrast to predicted by CAPM. They documented size premium of 1.85% and is instable to the time period (1962-1978). Lamoureux and Sanger (1989) for the sample period of 1973-1985; for the sample size of 7659 Nasdaq stocks confirmed monthly size premium of 2.00% for 20 size based portfolios. Hawawini and Keim (1995, 2000) examined and confirmed the presence of size effect in different countries like France, Belgium, New Zealand, Taiwan and Singapore. Mohanty (2001) used the methodology of Fama-French (1993, 1995 and 1996) documented excess returns for small firms over large firms when using size as a proxy for risk. The results also documented that small firms are exposed to higher risk explained by the transaction costs. Obaidullah (1993), Ray (1994) and Mohanty (2002) in their studies; also reported evidences contradicting the application of CAPM in Indian capital market. Sehgal et al. (2002) in their study documented that 60% of the Indian respondents prefer and have conviction that small cap stocks gives more return as compare to large cap stocks if invested for the long period of time. Sehgal et al. (2003) on using alternative size measures documented strong presence of size effect and a weak value effect in Indian stock market for the period 1989-1999. Muneesh and Sehgal (2003) on using two different measures total assets and net sales found the strong existence of size effect in India. Kumar and Sehgal (2004) on using both market and non-market measures documented size effect and weak value effect on sample of 364 Indian companies. Sehgal and Tripathi (2005) reported monthly size premium of 3.99% for a sample of 482 BSE-500 companies for the period of 1990-2003. Sehgal and Tripathi (2006) by using the multivariate analysis documented variation in small firms to large firms in risk characteristics related to financial leverage, operating efficiency, stock liquidity, distress level and institutional neglect. Prasad and Verma (2013) found absence of size effect in Indian Stock market for a sample of 500 companies listed in the CNX Nifty 500 index for the study period of 2001-2010.

METHODOLOGY
SAMPLE COMPANIES
The sample for the study consists of the companies included in BSE 500 index, as on 31st March 2014. The data for the study comprises of adjusted closing prices of month-end for the sample companies for the period of 13 years starting from March 2002 to March 2014. The annual figures of net fixed assets and net annual sales for the sample companies are taken as on 31st March. Due to unavailability of continuity of data for 192 companies only 308 companies are taken for study listed in BSE 500 index. Data is taken from Center for Monitoring Indian Economy (CMIE). For all the sample companies the monthly log (ln) returns of stock prices are calculated.

PORTFOLIO CONSTRUCTION

For this study, two accounting measurement parameters net fixed assets and net annual sales are used. Based on these two parameters sample companies are ranked and sorted for first year as on 31st March 2002 and process is repeated in every consecutive year for the period of 13 years. After the ranking, these companies are separated into five equally weighted portfolios i.e. P1, P2, P3, P4 and P5. P5 and P1 represent portfolios holding 20% largest size companies and 20% smallest size companies respectively based on the two size measures. Hence, five sets of portfolios are constructed for each year based on two size measures. Returns on these equally weighted portfolios are calculated from October to next September and reconstitution is repeated for the sample period; as information publish in by Indian companies gets reflected in stock prices till September month. As the sample data is from BSE 500 index the market proxy is the returns generated by BSE Sensex. 91 days Treasury bill, rate of return applicable to the study period is taken as a risk-free rate.

Size premium is propensity of small market cap stocks to outperform large market cap stocks over a period of time. Risk premium is the excess rate of return over risk-free rate on an investment.

To find out the size premium (excess returns from the portfolio over the market portfolio) on the portfolios the following standard market model is applied:

$$R_{pt} - R_{ft} = \alpha_t + \beta\,(R_{mt} - R_{ft}) + \varepsilon \qquad (1)$$

Where,

$R_{pt} - R_{ft}$ = Excess returns on portfolio at time t

α_t = Excess return of the portfolio

β = Slope coefficient measuring the sensitivity of portfolio to market return

$R_{mt} - R_{ft}$ = Excess return of Market proxy index over risk-free rate of return

ε = Random error term

RESULTS AND DISCUSSION

The descriptive statistics of the logarithmic returns of the five portfolios based on fixed assets is presented in Table 1.1. The highest (0.009) mean returns are for P1 with a highest standard deviation of 0.095. The lowest (0.000) mean returns are for P5 with a lowest standard deviation of 0.069. The Sensex mean returns are positive (0.008) with a standard deviation of (0.069). The p values for all the portfolios and Sensex indicate that none of the return series are normally distributed.

The descriptive statistics of the logarithmic returns of the five portfolios based on Net Sales are presented in Table 1.2. The highest (0.010) mean returns are for P1 with a highest standard deviation of 0.104. The lowest (0.001) mean returns are for P4 with a standard deviation of 0.094. The p values for all the portfolios indicate that none of the return series are normally distributed.

Table 1.3 presents the time series cross correlation between fixed assets and net sales. There is (0.870) correlation between net sales and fixed assets which depicts a good association between them.

Table 1.4 presents the mean excess returns of portfolios, wherein based on fixed assets the mean excess returns on P_{SMALL} are 0.009 whereas P_{LARGE} has no excess returns which indicates that P_{SMALL} has excess returns 10.8% more vis-à-vis P_{LARGE}. In case of portfolios based on the net sales, the mean excess returns on P_{SMALL} are 0.010 whereas the mean excess returns on P_{LARGE} are 0.002 which indicates that P_{SMALL} has excess returns 9.9% more vis-à-vis P_{LARGE}. Thus, the size premium is lying with the small stocks portfolio.

Table 1.5 shows size premiums based on fixed assets; wherein the maximum size premium on P1 is over P5 (0.009) which is significant (p value 0.012) at 5% level of significance (t value 2.548). The size premiums for other portfolios are not significant in terms of returns. Hence, out of ten portfolios based on fixed assets one size premium only is significant.

Based on net sales, the maximum size premium on P1 is over P4 (0.009) which is significant (p value 0.010) at 5% level of significance (t value 2.598). The size premium for P1 over P5 is 0.008 which is significant (p value 0.042). The size premium for P2 over P4 is 0.008 which is also significant (p value 0.030). Hence, out of ten portfolios based on net sales three size premiums only are significant.

Excess returns on portfolio is captured by the alpha (more than 0) explained by the excess market returns. The market model results for the portfolios based on fixed assets are presented in Table 1.6; the alpha value on P1 (0.000) indicates that there are no abnormal returns on P1. The alpha value on P2 (-0.002) indicates that there is negative and no abnormal returns on P2. The alpha value on P3 (-0.004) indicates that there is negative and no abnormal returns on P3. The alpha value on P4 (-0.004) indicates that there is negative and no abnormal returns on P4. The alpha value on P5 (-0.010) indicates that there is abnormal returns on P5; significant at 5% level of significance (p value 0.004). It is to be noted that R^2 value is increasing monotonically with respect to size of the portfolios interpreting that small firm stocks have larger variables other than market returns (Sensex) explaining variation in returns. Hence, significant abnormal returns are generated by portfolio P5 only.

The market model results for the portfolios based on net sales are presented in Table 1.7; the alpha value on P1 (0.000) indicates that there are no abnormal returns on P1. The alpha value on P2 (-0.000) indicates that there is negative and no abnormal returns on P2. The alpha value on P3 (-0.004) indicates that there is negative and no abnormal returns on P3. The alpha value on P4 (-0.008) indicates that there is abnormal returns on P4; significant at 5% level of significance (p value 0.034) on P4. The alpha value on P5 (-0.007) indicates that there is abnormal returns; significant at 5% level of significance (p value 0.028) on P5. Since, excess returns are not statistically significant for small stocks whereas excess returns are statistically significant for P4 and P5, indicating there is no size effect.

CONCLUSION

The findings of the study interpret that based on two accounting measures of size namely fixed assets and net sales there is absence of abnormal returns on small stocks portfolios however there is presence of abnormal returns on large stocks portfolios. The result confirms the size premium of 10.8% and 9.6% annually based on fixed assets and net sales respectively (significant at 5% level). The findings are inconsistent with findings of Sehgal and Tripathi (2005) for the period of 1993-2003 which confirms strong presence of size effect in Indian stock market. However, the findings of the study is consistent with the findings of Rakhi and Mittal (2015) which noted no strong evidence of size effect on the basis of market capitalization for the period of 2003 to 2007 in Indian stock market. The results are also in symmetrical with the results of Prasad and Verma (2013) which also confirms the absence of size effect in the Indian stock market for the period 2002 to 2010. The outcome of the study proposes investment managers to design investment strategy considering large stocks in portfolio to gain extra profits on portfolios. The findings highlight the possible cause may be advancement in technology, improvement in market efficiency and investors being more updated leads to pricing of securities efficiently. The outcomes reveal the fact that small firm stocks are not neglected and considered well in their pricing.

Hence forth, it is concluded that size effect is not detected using the sample of 500 companies listed in BSE 500 index for the period of 13 years from March 2002 to March 2014 on five equally weighted portfolios representing small firm stocks and large firm stocks were constructed based on fixed assets and net sales respectively. Using the BSE index as a market proxy, market model was applied which indicates the abnormal returns only for large size stocks. The study invites further research to be undertaken using different measures of size and market proxies for different time period.

REFERENCES

1. Banz, R.W. (1981). "The Relationship Between Securities Yields, Firm Size, Earnings/Price Ratios", *Journal of Business Finance and Accounting,* Volume 21, Issue 1, pp. 109-131.
2. Berk, J. B. (1996). "An Empirical Re-Examination of the Relation between Firm Size and return", Working Paper, School of Business Administration, University of Washington, Washington.
3. Brown, P., Kleidon, A.W., Marsh, T.A. (1983). "New evidence on the nature of size related anomalies in stock prices". *Journal of Financial Economics.* 12, 33-56.
4. Fama, E. and French K. (1995). "Size and Book to Market Factors in Earnings and Returns", *Journal of Finance*, Volume 50, pp.131-155.
5. Fama, E., and French, K. (1993). "Common Risk Factors in the Returns of Stocks and Bonds", *Journal of Financial Economics,* Volume33, pp.3-56.

6. Fama, E., and French, K. (1996). "Multifactor Explanations of Asset Pricing Anomalies", *Journal of Finance*, Volume 51, pp. 55-84.
7. Fama, E.F., and MacBeth, J.D., (1973), "Risk, Return and Equilibrium: Empirical Tests," *Journal of Political Economy,* 81, pp.607-636.
8. Hawawini, G., Keim, D.B. (1995). "On the predictability of common stock returns: World –wide evidence. In: Jarrow, R., Maksimovic, V., Ziemba, W.T., (Eds.), *Handbooks in Operations Research and Management Science*. North Holland, Amsterdam.
9. Keim and Donald B. (1983). Size related anomalies and stock returns seasonality: Further empirical evidence. *Journal of Financial Economics,* 12.
10. Kumar, M., and Sehgal, S., (2004), "Company Characteristics and Common Stock Returns: The Indian experience," *Vision–The Journal of Business Perspective,* July- December, pp.33-45.
11. Lamoureux, C.G., Sanger, G.C. (1989). "Firm size and turn-of-the-year effects in the OTC/Nasdaq market", Journal of Finance 44, 1219-1245.
12. Mohanty, P. (2001). "Efficiency of the Market for Small Stocks", NSE Research Paper Series, Mumbai.
13. Mohanty, P.(2002). "Evidence of Size Effect on Indian Stock Returns", Vikalpa, 27(2), pp.27-37.
14. Obaidullah,M. (1993). "Does the CAPM explain Actual Price Behavior, *Chartered Financial Analyst*.
15. Prasad,S. and Verma,A. (2013). "Size and returns: A study of the Indian Stock Market*". Indian Journal of Finance*, Volume 7, No.5.
16. Rakhi and Mittal R.K. (2015). "Anomalies in Indian stock market post 2002". Thesis Shodhganga.
17. Ray, Subrata (1994), Capital Asset Pricing Model: The Indian Context, Unpublished doctoral dissertation, Indian Institute of Management, Bangalore.
18. Reinganum, M. R. (1981). "Misspecifications of Capital Market Pricing: Empirical Anomalies Based on Earnings Yields and Market Values", *Journal of Financial Economics*, Volume 9, Issue 2, pp.19-46.
19. Sehgal S. (2002). "Investor Behavior in Indian Capital Market", *Review of commerce studies,* Volumes 20-21*,* pp. 123-152.
20. Sehgal S., Muneesh, K. (2002). "The Relationship Between Company Size, Relative Distress and Returns in Indian Stock Market", *The ICFAI Journal of Finance*, Volume 8, Issue 2, pp. 41-50.
21. Sehgal, S. (2003). "Common Factors in Stock Returns: The Indian Evidence", *The ICFAI Journal of Applied Finance*, Volume 9, Issue 1, pp.5-16.
22. Sehgal, S., and Tripathi, V. (2005). "Size Effect in Indian Stock Market: Some Empirical Evidence", *Journal of Business Perspective,* Volume 9, Issue 4, pp. 27-42.
23. Sehgal, S., and Tripathi, V. (2006). "Sources of Size effect: Evidence from Indian Stock Market: *The ICFAI Journal of Applied Finance,* Volume 12, Issue 3, pp.18-28.
24. Sharpe, W. F. (1964). "Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk", *The Journal of Finance*, Volume 19, Issue 3, pp. 425-442.

TABLES

TABLE 1.1: DESCRIPTIVE STATISTICS OF PORTFOLIOS BASED ON FIXED ASSETS AND SENSEX

Portfolio	Obs.	Mean	Std. Dev.	p-Value
P1	156	0.009	0.095	0.000
P2	156	0.006	0.090	0.000
P3	156	0.005	0.088	0.000
P4	156	0.005	0.092	0.000
P5	156	0.000	0.009	0.000
Sensex	156	0.008	0.069	0.000

TABLE 1.2: DESCRIPTIVE STATISTICS OF PORTFOLIOS BASED ON NET SALES

Portfolio	Obs.	Mean	Std. Dev.	p-Value
P1	156	0.010	0.104	0.000
P2	156	0.007	0.087	0.000
P3	156	0.005	0.090	0.000
P4	156	0.001	0.094	0.000
P5	156	0.002	0.092	0.000

TABLE 1.3: CROSS CORRELATION MATRIX OF TWO SIZE MEASURES (FIXED ASSETS AND NET SALES)

	Fixed Assets	Net Sales
Fixed Assets	1.000	0.870
Net Sales		1.000

Correlation is significant at 0.01 level (2-tailed)

TABLE 1.4: MONTHLY MEAN EXCESS RETURNS OF PORTFOLIOS

Portfolio	Fixed Assets	Net Sales
P1	0.009	0.010
P2	0.006	0.007
P3	0.005	0.005
P4	0.005	0.001
P5	0.000	0.002

TABLE 1.5: MONTHLY SIZE PREMIUM (SMB) ON PORTFOLIOS

Portfolio	Fixed Assets	Net Sales
(P1-P2) p-Value	0.002 (0.323)	0.002 (0.337)
(P1-P3) p-Value	0.004 (0.089)	0.005 (0.095)
(P1-P4) p-Value	0.004 (0.161)	0.009 (0.010)*
(P1-P5) p-Value	0.009 (0.012)*	0.008 (0.042)*
(P2-P3) p-Value	0.001 (0.506)	0.002 (0.283)
(P2-P4) p-Value	0.001 (0.641)	0.006 (0.030)*
(P2-P5) p-Value	0.006 (0.091)	0.005 (0.173)
(P3-P4) p-Value	-0.000 (0.837)	0.003 (0.151)
(P3-P5) p-Value	0.004 (0.151)	0.002 (0.443)
(P4-P5) p-Value	0.004 (0.064)	-0.001 (0.710)

Note: p Value less than 5% is statistically significant

TABLE 1.6: RESULTS OF MARKET MODEL FOR PORTFOLIOS BASED ON FIXED ASSETS

Portfolio	Alpha	p-Value	Beta	R-Square
P1	0.000	0.950	1.117	0.661
P2	-0.002	0.607	1.065	0.669
P3	-0.004	0.278	1.081	0.722
P4	-0.004	0.277	1.148	0.744
P5	-0.010	0.004*	1.271	0.821

TABLE 1.7: RESULTS OF MARKET MODEL FOR PORTFOLIOS BASED ON FIXED ASSETS

Portfolio	Alpha	p-Value	Beta	R-Square
P1	0.000	0.950	1.117	0.661
P2	-0.002	0.607	1.065	0.669
P3	-0.004	0.278	1.081	0.722
P4	-0.004	0.277	1.148	0.744
P5	-0.010	0.004*	1.271	0.821

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