terms of the full return distribution by utilizing Stochastic Dominance (SD) criteria. The approach is illustrated by an application to US based environmentally responsible mutual funds.

Lonnie, L. Bryant, 'Management structure and the risk of mutual fund managers'. This paper provides a detailed discussion of the relationship between mutual fund management structure, fund risk and perfoı mance. He utilized the unique management structures of mutual fund investment companies were a manager operates one fund (Unitary Fund Management) or numerous funds simultaneously (Multiple Fund Management). He implemented various risk measures to analysis the impact of management structure, fund objective, fund market capitalization and other fund level characteristics. The evidence of study indicates that when fund managers manage multiple funds simultaneously, the risk of one of the managed funds is significantly increased, minimizing the inherit benefits of mutual fund stock diversification. Thus, the more time that a manager devotes to an individual fund the more likely the fund will reduce its risk exposure. This increased risk exposure of the multiple management structure results in fund misclassification.

2.3 Indian Studies

The following is a brief account of research published in books, financial dailies, and research journals by academicians. A brief account of the research works of Indian academicians are as follows.

Gupta, Ramesh (1989) evaluated fund performance in India comparing the returns earned by schemes of similar risk and similar constraints. An explicit risk-return relationship was developed to make comparison across funds with different risk levels. His study decomposed total return into return from investors risk, return from managers' risk and target risk. Mutual fund return due to selectivity was decomposed into return due to selection of securities and timing of investment in

a particular class of securities.

Vidhyashankar, S. (1990) identified a shift from bank or company deposits to mutual funds due to its superiority by way of ensuring a healthy and orderly development of capital market with adequate investor protection through SEBI interference. The study identified that mutual funds in the Indian capital market have a bright future as one of the predominant instruments of savings by the end of the century.

One of the earliest empirical researches in the area was done by Barua and Varma (1990). They examined the performance of Mastershares, the first close end Mutual Fund, both in terms of NAV and market prices. They found that though in terms of NAV the risk adjusted performance of Mastershares was superior to the market; in terms of market prices the performance was inferior to the market. The initial work was refined in the subsequent paper by the same authors (1991) which concluded that the performance of Mastershares from the point of view of a small investor (whose equity investment would primarily be in terms of holding of Mastershares) was poor while from the point of view of a large investor (for whom Mastershares would be one of the securities in the portfolio) the performance was excellent. The research raised an interesting issue about the purpose of mutual funds: if they are meant primarily for small investors, then Mastershares have failed to serve the purpose.

In another paper Barua and Varma (1993) examined the relationship between the NAV and the market price on Mastershares. They concluded that market prices are far more volatile than what can be justified by volatility of NAVs. The prices also show a mean reverting behaviour, thus perhaps providing an opportunity for discovering a trading rule to make abnormal profits in the market. Such a rule would basically imply buying Mastershares whenever the discount from NAV was quite high and selling Mastershares whenever the discount was low.

Bansal, L. K. (1991) identified that mutual fund like other

financial institutions is a potential intermediary between the prospective investor and the capital market. Mutual fund, as an investment agency was preferred since 1985-86 due to the benefits of liquidity, safety and reasonable appreciation assured by the industry. The schemes with assured returns showed tremendous progress. Majority of the funds floated by commercial banks gave an impression that the responsibility of funds laid with the respective banks and their investment was secured.

Sarkar, A.K. (1991) critically examined mutual fund evaluation methodology and pointed out that Sharpe and Treynor performance measures ranked mutual funds alike in spite of their differences in terms of risk. The Sharpe and Treynor index could be used to rank performance of portfolios with different risk levels.

Batra and Bhatia (1992) appreciated the performance of various funds in terms of return and funds mobilized. UTI, LIC and SBI mutual funds are in the capital market for many years declaring dividends ranging from 11 percent to 16 percent. The performance of Canbank Mutual Fund, Indian Bank Mutual Fund and PNB Mutual Fund were highly commendable. The performance of many schemes was equally good compared to industrial securities.

Gupta, L.C. (1992) attempted a household survey of investors with the objective of identifying investors' preferences for mutual funds so as to help policy makers and mutual funds in designing mutual fund products and in shaping the mutual fund industry.

Gangadhar, V. (1992) identified mutual funds as the prime vehicle for mobilization of household sectors' savings as it ensures the triple benefits of steady return, capital appreciation and low risk. He identified that open-end funds were very popular in India due to its size, economies of operations and for its liquidity. Investors opted for mutual funds with the expectation of higher return for a given risk, greater convenience and liquidity.

Lal, C. and Sharma, Seema (1992) identified that, the household sector's share in the Indian domestic savings increased from 73.6 percent in 1950-51 to 83.6 percent in 1988-89. The share of financial assets increased from 56 percent in 1970-71 to over 60 percent in 1989-90 bringing out a tremendous impact on all the constituents of the financial market.

Sahu, R.K. (1992) identified mutual funds as a suitable investment vehicle to strengthen capital market, as the total assets were around ₹ 30,000 crore while the total resources in equity was less than 15 percent of market capitalization.

Venugopalan, S. (1992) opined that India (15 million) ranks third in the World next to U.S.A. (50 million) and Japan (25 million) in terms of number of shareholders ensuring the spread of equity cult. However, many investors face hardships in the share market due to lack of professional advice, inability to minimize risk, limited resources and information.

Anagol (1992) identified the urgent need for a comprehensive self regulatory regime for mutual funds in India, in the context of divergence in its size, constitution, regulation among funds and sweeping deregulation and liberalization in the financial sector.

Shashikant, Uma (1993) critically examined the rationale and relevance of mutual fund operations in Indian Money Markets. She pointed out that money market mutual funds with low-risk and low return offered conservative investors a reliable investment avenue for short-term investment.

Ansari (1993) stressed the need for mutual funds to bring in innovative schemes suitable to the varied needs of the small savers in order to become predominant financial service institution in the country.

Sahu, R.K. and Panda, J. (1993) identified that, the savings of the Indian public in mutual funds was 5 to 6 percent of total financial savings, 11 to 12 percent of bank deposits and less than 15 percent of equity market capitalization. The study suggested that, mutual funds should develop suitable strategies

keeping in view the savings potentials, growth prospects of investment outlets, national policies and priorities.

Saha, Asish and Ramamurthy, Y. Sree (1993-94) identified that return, liquidity, safety and capital appreciation played a predominant role in the preference of the schemes by investors. The preference of the households towards shares and debentures was 7 percent by 1989-90. Mutual funds being an alternative way for direct purchase of stocks should be managed effectively adopting investment analysis, valuation models, and portfolio management techniques. The study suggested that, fund managers could adopt portfolio selection techniques to make more informed judgments rather than making investments on an intuition basis.

Vaid, Seema's (1994) study revealed that the industry showed a continuous growth in savings mobilization and the number of unit holders during the period 1987 to 1992. 58.40 percent of resources mobilized by the industry were through income schemes. UTI accounted for 83.90 percent of industry mobilization. Pure growth schemes displayed a sound investment pattern with 81.80 percent of portfolios in equity scrips and had identified that semi-urban and rural areas were not adequately tapped by the mutual funds in spite of satisfactory returns. Offshore funds showed best performance during 1985-86.

Shukla and Singh (1994) attempted to identify whether portfolio manager's professional education brought out superior performance. They found that equity mutual funds managed by professionally qualified managers were riskier but better diversified than the others. Though the performance differences were not statistically significant, the three professionally qualified fund managers reviewed outperformed others.

The study by Shome (1994) based on growth schemes examined the performance of the mutual fund industry between April 1993 to March 1994 with BSE SENSEX as market surrogate. The study revealed that, in the case of 10

schemes, the average rate of return on mutual funds were marginally lower than the market return while the standard deviation was higher than the market. The analysis also provided that, performance of a fund was not closely associated with its size.

Shah, Ajay and Thomas, Susan (1994) studied the performance of 11 mutual fund schemes on the basis of market prices. Weekly returns computed for these schemes since their launch of the scheme to April 1994 were evaluated using Jensen and Sharpe measures. They concluded that, except UTI UGS 2000, none of the sample schemes earned superior returns than the market due to very high risk and inadequate diversification.

Kale and Uma (1995) conducted a study on the performance of 77 schemes managed by 8 mutual funds. The study revealed that, growth schemes yielded 47 percent CAGR, tax-planning schemes 30 percent CAGR followed by balanced schemes with 28 percent CAGR and income schemes with 18 percent CAGR.

Value Research India Pvt. Ltd. (1996) conducted a survey covering the bearish phase of Indian stock markets from 30th June 1994 to 31st December 1995. The survey examined 83 mutual fund schemes. The study revealed that, 15 schemes provided negative returns, of which, 13 were growth schemes. Returns from income schemes and income-cum-growth schemes were more than 20 percent. From the point of risk-adjusted monthly returns, of the 53 growth schemes, 28 (52.8 percent) could beat the index even in a bear phase.

Tripathy, Nalini Prava (1996) identified that the Indian capital market expanded tremendously as a result of economic reforms, globalization and privatization. Household sector accounted for about 80 percent of country's savings and only about one-third of such savings were available for the corporate sector. The study suggested that, mutual funds should build investors confidence through schemes meeting the diversified needs of investors, speedy disposal of