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A STUDY OF RISK-RETURN ANALYSIS OF MUTUAL FUND SCHEMES

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ABSTRACT
Risk is the potential for actual returns to be different from projections. This might be above or below the predicted rate of return. However, investors worry more about the possibility of losses. Any security may be impacted by the external threat of systemic risk. This risk cannot be mitigated by investing in a diversified portfolio. However, owning a diverse portfolio may often avoid unsystematic risk, which is internal to the organization and the industry. It's important to note that each investor has their own unique level of comfort with risk. Since there is a positive correlation between risk and returns, conservative investors choose low-risk products like bonds. On the other hand, those who are comfortable taking on more risk may choose to put their money in the stock market. An investor who is concerned about losing money would do well to choose the investment that offers the better return with the lower risk (lower standard deviation). If two investments have the same potential return, a smart investor would choose the one with the lesser risk. In addition, he will choose the higher-return investment if two choices are available with the same level of risk.

KEYWORDS: Risk-Return Analysis, Mutual Fund Schemes, low-risk products, higher-return investment

INTRODUCTION

A mutual fund is a kind of investment vehicle that allows investors to combine their money by purchasing "units," or shares, and then investing that money in assets in line with the fund's stated goals. The danger associated with stock market investments is mitigated by diversifying them over several different fields. Since not every stock will move in the same direction or in the same percentage at the same time, diversification helps mitigate risk. Mutual funds periodically release a variety of plans, each with its own unique investing objectives. Before soliciting contributions from investors, a mutual fund must first register with the Securities and Exchange Board of India (SEBI), the government agency responsible for regulating the Indian securities markets. Saving and investing in mutual funds is thus easy, available, and reasonably priced. Mutual funds provide several benefits, such as expert management, a wide range of investment options, high liquidity, low cost, low maintenance, simple record-keeping requirements, stringent government regulation, and complete transparency. Furthermore, all profits from mutual funds are free from taxation under the Income Tax Act of 1961. The equity fund's additional short-term capital gains are subject to taxation at a rate of 15%.

Risk Pattern of Various Mutual Fund Schemes

The risk profile of several mutual fund schemes is shown in Table 1. According to the data in the table, the majority of mutual fund schemes had high risk in four of the nine years included for this analysis (2003–2004, 2004–2005, 2006–2007, and 2009–2010). Furthermore, the majority of mutual fund schemes had medium risk in five out of nine years (i.e. 2002–03, 2005–06, 2007–08, 2008–09, and 2010–11). In 2005-06, just 4% of schemes were low risk, whereas in 2010-11, only 10.42% were.

Table 1 Risk Pattern of Various Mutual Fund Schemes

Year↓	Number of schemes having low risk	Number of schemes having medium risk	Number of schemes having high risk	Total number of schemes
2002-03	-	34(75.55)	11(24.45)	**45**
2003-04	-	11(22.00)	39(78.00)	**50**
2004-05	-	21(42.00)	29(58.00)	**50**
2005-06	2(4.00)	47(94.00)	1(2.00)	**50**
2006-07	-	24(48.00)	26(52.00)	**50**
2007-08	-	37(74.00)	13(26.00)	**50**
2008-09	-	50(100.00)	-	**50**
2009-10	-	4(8.16)	45(91.84)	**49**
2010-11	5(10.42)	43(89.58)	-	**48**

Risk Pattern of Growth Schemes

Since its primary goal is to increase investors' capital, growth schemes are often moderately to highly risky. Table 2 shows that, out of the nine years studied, four (2003–2004, 2004–2005, 2006–2007, and 2009–2010) had the highest proportion of growth plans with high risk.

Of the nine years examined, five (2002–03, 2005–06, 2007–08, 2008–09, and 2010–11) had the highest proportion of medium-risk growth plans. Low-risk reports were filed by just one scheme (2.78%) in 2010-2011.

Risk Pattern of Balanced Schemes

The risk level associated with balanced schemes is typically moderate. These funds' investments are often a mix of stock and debt. Therefore, the portfolio of a balanced fund has less risk than growth schemes. According to Table 3, seventy-five percent of 2009-10 balanced plans were very risky. However, the majority of these 8 years' worth of programs

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were classified as medium risk. In addition, in 2005-06, 16.67% of the schemes had low risk and in 2010-11, 33.33 % of the schemes did.

Table 2 Risk Pattern of Growth Schemes

Year↓	Number of schemes having low risk	Number of schemes having medium risk	Number of schemes having high risk	Total number of schemes
2002-03	-	22(66.67)	11(33.33)	**33**
2003-04	-	-	38(100.00)	**38**
2004-05	-	10(26.32)	28(73.68)	**38**
2005-06		37(97.36)	1(2.64)	**38**
2006-07	-	12(31.58)	26(68.42)	**38**
2007-08	-	26(68.43)	12(31.57)	**38**
2008-09	-	38(100.00)	-	**38**
2009-10	-	1(2.7)	36(97.30)	**37**
2010-11	1(2.78)	35(97.22)	-	**36**

Table 3 Risk Pattern of Balanced Schemes

Year↓	Number of schemes having low risk	Number of schemes having medium risk	Number of schemes having high risk	Total number of schemes
2002-03	-	12(100.00)	-	**12**
2003-04	-	11(91.67)	1(8.33)	**12**
2004-05	-	11(91.67)	1(8.33)	**12**
2005-06	2(16.67)	10(83.33)	-	**12**
2006-07	-	12(100.00)	-	**12**
2007-08	-	11(91.67)	1(8.33)	**12**
2008-09	-	12(100.00)	-	**12**
2009-10		3(25.00)	9(75.00)	**12**
2010-11	4(33.33)	8(66.67)	-	**12**

Comparison of Risk Pattern of Mutual Fund Schemes of Public and Private Sector

Mutual fund schemes from both the public and private sectors are compared for their relative levels of risk in Table 4. Most public sector programs (66%) to were completely high risk in three out of nine years (2003-04, 2004-05, and 2009-10). Furthermore, in 5 out of 9 years (i.e. 2002–03, 2005–06, 2007–08, 2008–09, and 2010–11), the majority of schemes (91% to 100%) had medium risk. In 2006-07, high risk accounted for 50% of all programs and medium risk for another 50%. During the research period, no government program had an

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especially low risk profile. On the other hand, between 52% and 89% of private sector mutual fund schemes indicated high risk in 4 of the 9 years (2003–2004, 2004–2005, 2006–2007, and 2009–2010). Furthermore, in 5 out of 9 years (i.e. 2002–03, 2005–06, 2007–08, 2008–09, and 2010–11), the majority of schemes (68% to 100%) had medium risk. In 2005-06, just 5.26% of projects were low risk, however in 2010-11, 13.51% of schemes were.

Table 4 Comparison of Risk Pattern of Mutual Fund Schemes of Public and Private Sector

	Public Sector				**Private Sector**			
Year↓	**Number of schemes having low risk**	**Number of schemes having medium risk**	**Number of schemes having high risk**	**Total number of schemes**	**Number of schemes having low risk**	**Number of schemes having medium risk**	**Number of schemes having high risk**	**Total number of schemes**
2002-03	-	10(83.33)	2(16.67)	**12**	-	24(72.73)	9(27.27)	**33**
2003-04	-	2(16.67)	10(83.33)	**12**	-	9(23.68)	29(76.32)	**38**
2004-05	-	4(33.33)	8(66.67)	**12**	-	17(44.74)	21(55.26)	**38**
2005-06	-	11(91.67)	1(8.33)	**12**	2(5.26)	36(94.74)	-	**38**
2006-07	-	6(50.00)	6(50.00)	**12**	-	18(47.37)	20(52.63)	**38**
2007-08	-	11(91.67)	1(8.33)	**12**	-	26(68.42)	12(31.58)	**38**
2008-09	-	12(100.00)	-	**12**	-	38(100.00)	-	**38**
2009-10	-	-	11(100.00)	**11**	-	4(10.53)	34(89.47)	**38**
2010-11	-	11(100)	-	**11**	5(13.51)	32(86.49)	-	**37**

Comparison of Schemes' Risk with Benchmark Indices

Table 5 shows how the risk of various schemes stacks up against various market benchmark indexes.

1. Comparison with S&P CNX Nifty

Most of the chosen schemes during 2003-04, 2004-05, and 2010-11 were safer than the S&P CNX Nifty. This means that in 6 out of the 9 years analyzed, the majority of the schemes had riskier outcomes than the chosen index.

2. Comparison with BSE Sensex

For both 2009–10 and 2010–11, it was determined that a significant number of schemes had risk below the specified benchmark index (the BSE Sensex) in terms of risk. Therefore, it is evident that, for 7 of the 9 years considered, the majority of the projects chosen had a greater degree of risk.

Table 5 Comparison of Risk of Schemes with Benchmark Indices

Year↓	Number of Schemes having Risk Below				Total number of schemes
	S&P CNX Nifty	BSE Sensex	BSE- 100	BSE- 200	
2002-03	21(46.67)	16(35.56)	24(53.33)	29(64.44)	**45**
2003-04	30(60.00)	22(44.00)	30(60.00)	29(58.00)	**50**
2004-05	26(52.00)	21(42.00)	23(46.00)	27(54.00)	**50**
2005-06	13(26.00)	15(30.00)	16(32.00)	15(30.00)	**50**
2006-07	11(22.00)	9(18.00)	13(26.00)	14(28.00)	**50**
2007-08	14(28.00)	14(28.00)	25(50.00)	28(56.00)	**50**
2008-09	19(38.00)	18(36.00)	27(54.00)	27(54.00)	**50**
2009-10	17(34.69)	31(63.27)	35(71.43)	35(71.43)	**49**
2010-11	38(79.17)	37(77.08)	30(62.50)	29(60.42)	**48**

3. Comparison with BSE 100

Risk study using the BSE 100 benchmark shows that in 5 out of 9 years, most schemes had lower risk than the chosen benchmark index.

In 2007-2008, the percentage of schemes with risk above or below the benchmark was equal at 50%. In addition, most schemes in 2004–2005–2006–2007 were riskier than the BSE 100.

4. Comparison with BSE 200

The majority of the mutual fund schemes under examination had risk below the BSE 200 index in 7 out of the 9 years of the research, as determined by comparing the risk of the schemes to that of the index. In contrast, most schemes had risk levels above the benchmark index in 2005–06 and 2006–07.

CONCLUSION

The vast majority of mutual fund schemes were classified as medium risk. Most chosen mutual fund schemes have lower risk than the BSE 100 and BSE 200 compared to the benchmark indexes S&P CNX Nifty and BSE Sensex, respectively. Except for 2008-09, the vast majority of public and private sector plans had positive returns. When compared to benchmark indexes, scheme returns were consistently higher throughout the course of the study's time period. Based on their compound annual growth rate (CAGR), private sector mutual fund schemes were clearly outperforming their public sector counterparts. Up to 2005–06, the vast majority of mutual fund schemes had a higher return on investment (ROI) than any of the relevant benchmark indexes, as measured by both the Sharpe and Treynor ratios. Starting in 2006–07 and continuing through the bulk of the research period, the majority of the schemes underperformed chosen benchmark indexes on both parameters. Similar findings are highlighted by the Jensen index, with the majority of schemes showing improvement throughout the course of the research. Most investors have a solid understanding of how mutual funds work. Additionally, there seems to be a favorable correlation between the respondents' experience and their expertise. The vast majority of investors consider themselves to be low-to-moderate risk takers. In this respect, however, there have been shown to be substantial disparities amongst responders of different ages. 'Return,' 'Liquidity,' 'Tax Savings,' 'Risk,' 'Diversification,' 'Exit Load,' 'Lock in Period,' 'Past Performance,' 'Sector Where Investment Will Be Made,' 'Rating,' 'Promoter Name,' and 'Size of Corpus' are all crucial aspects of mutual fund investments. In addition, when respondents were broken down by age, profession, savings, and experience, there was a high degree of agreement in their ranks (as measured by Kendall's coefficient of concordance). Mutual Funds are favored financial assets because of their potential for profit, ease of trading, and tax advantages. However, they are rated far worse in terms of security.

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