EMPIRICAL ANALYSIS OF RISK FACTOR IN INVESTMENT MANAGEMENT

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Abstract

The survey is focused on a convenience poll of 100 respondents who were selected to learn about individual investors' mutual fund purchasing habits. The article identifies the different characteristics that investors look for when choosing a mutual fund to invest in. Credibility of the fund and Miscellaneous characteristics of the fund are the two fundamental considerations of interest that are derived. The relationship between these variables and demographic variables has been established. The article makes predictions for mutual fund firms as well as research topics for the future.

Keywords Factor: *Mutual funds, ANOVA, entry and exit load, past performance, tax benefits.*

1.0   INTRODUCTION

Stock exchange operations are peculiar in nature and most of the Investors feel insecure in managing their investment on the stock market because it is difficult for an individual to identify companies which have growth prospects for investment. Further due to volatile nature of the markets, it requires constant reshuffling of portfolios to capitalize on the growth opportunities. Even after identifying the growth-oriented companies and their securities, the trading practices are also complicated, making it a difficult task for investors to trade in all the exchange and follow up on post trading formalities.

Investors choose to hold groups of securities rather than single security that offer the greater expected returns. They believe that a combination of securities held together will give a beneficial result if they are grouped in a manner to secure higher return after taking into consideration the risk element. That is why professional investment advice through portfolio management service can help the investors to make an intelligent and informed choice between alternative investments opportunities without the worry of post trading hassles.

More and more investors apply socially responsible screens when building their stock portfolios. This raises the question whether these investors can increase their performance by incorporating such screens into their investment process. To answer this question, we implement a simple trading strategy based on socially

responsible ratings from the KLD Research & Analytics: Buy stocks with high socially responsible ratings and sell stocks with low socially responsible ratings. We find that this strategy leads to high abnormal returns of up to 8.7% per year. The maximum abnormal returns are reached when investors employ the best-in-class screening approach, use a combination of several socially responsible screens at the same time, and restrict themselves to stocks with extreme socially responsible ratings.

2.0 REVIEW OF LITERATURE

Richard Grinold, provides a general framework for the description of various aspects of a portfolio using a set of factors. The work is cousin to the well –worn topic of performance analysis and attribution, and in that sense, is fairly represented as being old wine in new bottles the scope is much more general, however Grinold first provides a theoretical structure with a model that describes various aspects of a portfolio as either the allocation of a portfolio's variance or as the results in terms of the risk and correlation of portfolios. The expanded framework and portfolio focus opens up a wide range of problems that can be studied with the same framework. Grinold uses exampled to illustrate what the methodology can accomplish and as a guide to sense when we are asking too much from the model.

Roger Clarke, Harindra de Silva and Steven Thorley, Empirical studies document that equity portfolios constructed to have the lowest possible risk have a surprisingly high average returns. Roger Clarke, Harindra de Silva and Steven 53horley derive an analytic solution for the long-only Minimum-variance portfolio under the assumption of a single-factor covariance matrix. The equation for the optimal security weights has simple and intuitive form that provides several insights on minimum – variance portfolio composition. The relatively small set of securities that remains has market betas below an analytically specified threshold beta.

The ratio of portfolio beta to threshold beta dictates the portion of ex-ante portfolio variance that is market factor related. The authors verify and illustrate the portfolio mathematics using historical data on the U.S. equity market and explore how the single factor analytic results compare to numerical optimization under a generalized covariance matrix. The analytic and empirical results of this study suggest that minimum – variance portfolio performance is largely a function of the long – standing empirical critique of the traditional CAPM that low – beta stock have relatively high average returns.

Martin L. Leibowitz and Anthony Bova, an institutional fund typically has a multi- asset allocation the policy portfolio that is maintained overtime. When allocation shifts, the fund rebalances back to the policy portfolio. The discipline of the policy portfolio has many benefits: simplicity, convenient benchmarking, and a minimum of organizational frictions. It's very routine nature can lead, however, to an over emphasis on relative returns and insensitivity to fundamental changes in fund status and market structure. In 2003, the late Peter Bernstein questioned whether rigid adherence to the policy made sense, given frequent market dislocations and high levels of volatility. In this article Leibowitz and Bova attempt to shed further light on the Bernstein question by analyzing the risk tolerance and return assumption of a basic two- asset fund. One key finding is that policy

portfolio rebalancing implicitly assumes that the risk tolerance and return premiums remain fixed overtime. But few funds have the sponsorship, liquidity, or organizational convictions to keep such a constant risk tolerance in the face of severely adverse markets.

Robert A. Jarrow, it is commonly believed that active portfolio management can generate positive alphas. This is partly based on the beliefs that positive alphas represent disequilibrium returns, which can exist in complex financial markets. In contradiction, this article shows that positive alphas represent arbitrage opportunities, not just disequilibrium returns. As persistent and frequent arbitrage opportunities much rarer, even in complex markets, Jarrow argues that positive alphas are more fantasy than fact. He introduces the notion of an unobservable factor that can generate false positive alphas, and which resolves the inconsistency between common belief and the sparsity of positive alphas.

3.0 RESEARCH METHODOLOGY

The purpose of the report is to analyse the risk perceptions of current and potential investors and understanding how the decisions are made based on an individual's risk tolerance capacity. An attempt is also made to find out the factors that forms an investor's risk perception. This is done by identifying the needs and goals of customers, understanding their psychology, finding out their financial problems and then offering them a suitable investment product and create a profitable portfolio for them during the course of internship. The investor could be a novice who has no prior experience about investment market or a wizard in the same market.

The analysis of risk perception of equity investors also helps the companies who are into the business of asset management or stock broking to identify and target the appropriate market and individuals with suitable products available in their basket.

4.0 RESEARCH OBJECTIVES

1. To analyze the investment pattern, which gave optimal return at a minimize risk to the investor for the selected securities.
2. To analyze whether the portfolio risk is less than individual risk and also to understand the constituents of investments.
3. To understand portfolio selection process and select the best portfolio.
4. To understand the basic concepts of Investment Management and potential risks associated with it.
5. To provide necessary suggestions based on the learnings gained.
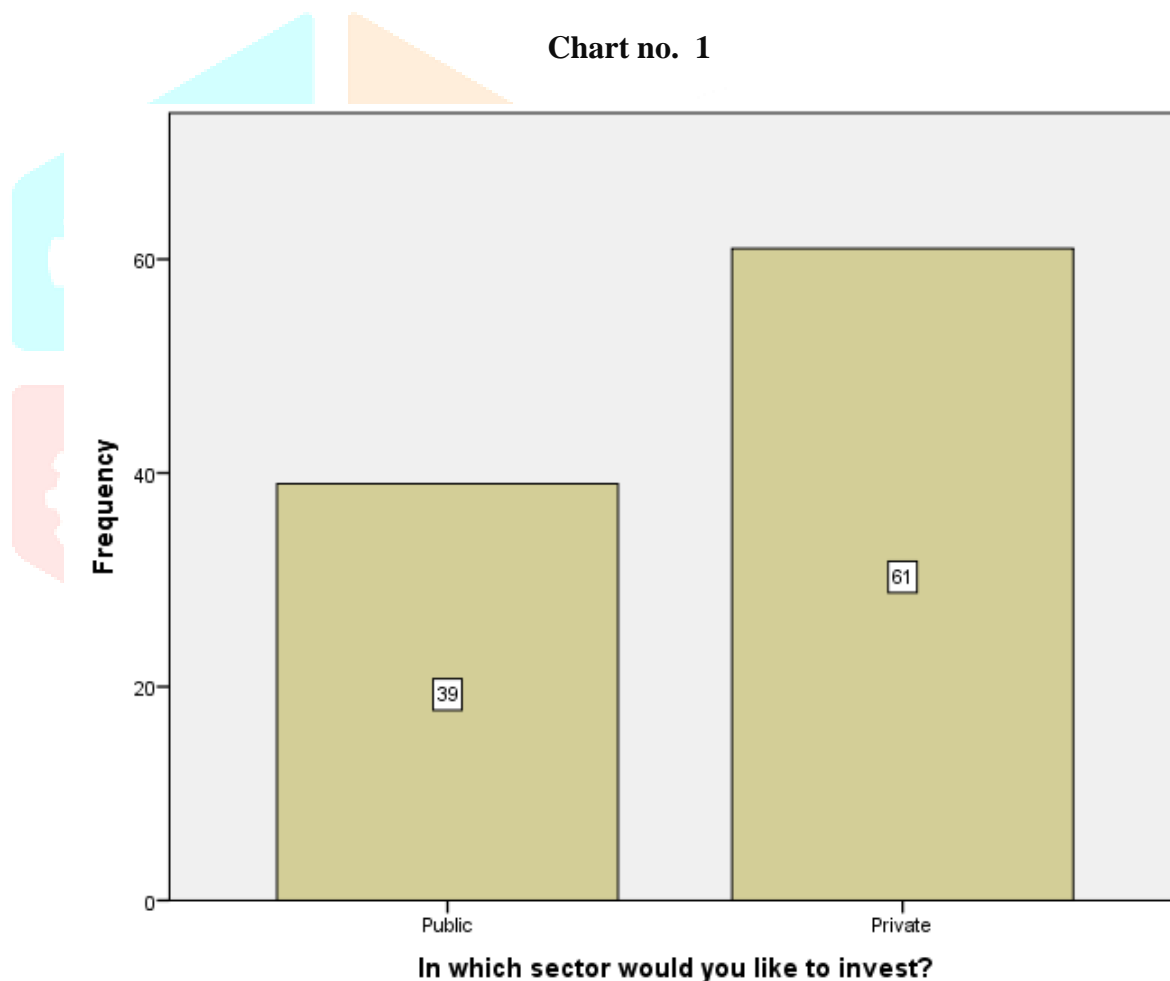
5.0 DATA ANALYSIS AND FINDINGS

5.1 PERCENTAGE ANALYSIS

1. **In which sector would you like to invest?**

Table no. 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	39	39.0	39.0	39.0
	Private	61	61.0	61.0	100.0
	Total	100	100.0	100.0	

Chart no. 1

In which sector would you like to invest?
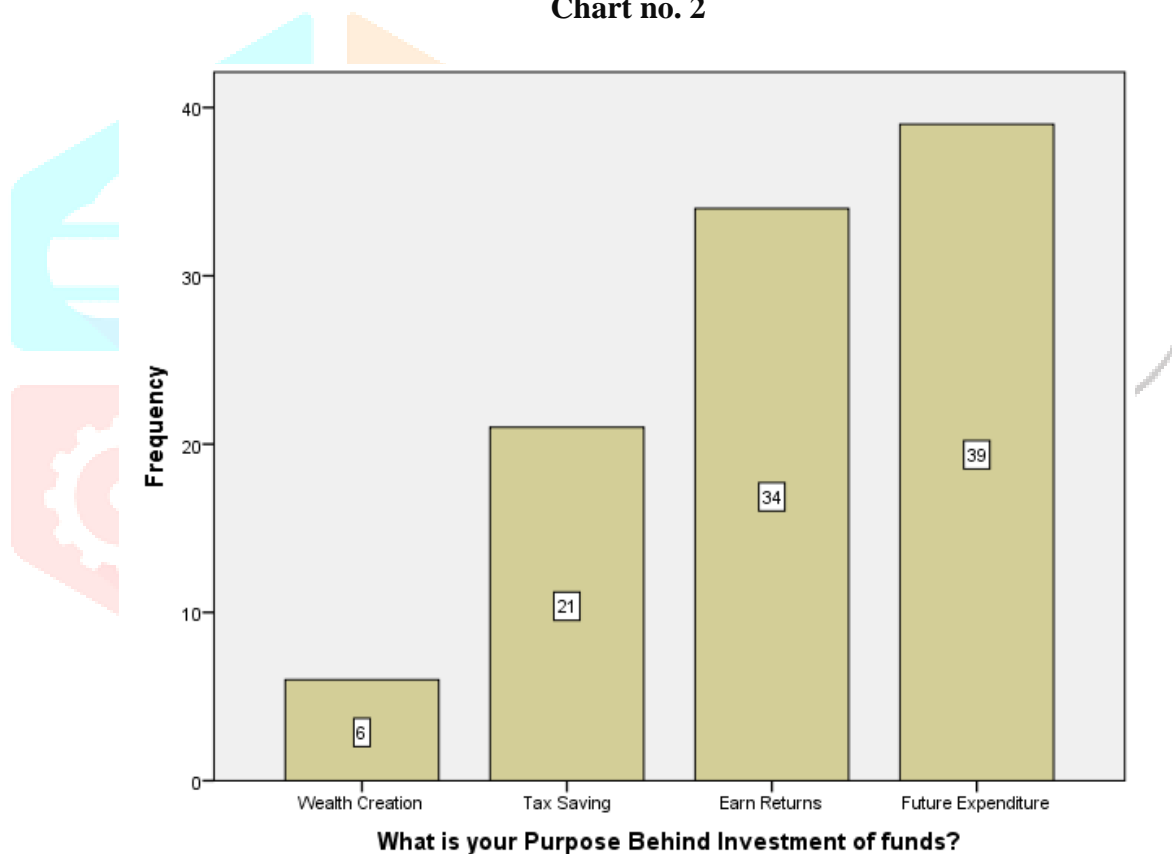
Interpretation:

The above table reveals that 61% of the respondents would like to invest in private sector and 39% of the respondents would like to invest in public sector.

2. **What is your Purpose behind Investment of funds?**

Table no. 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wealth Creation	6	6.0	6.0	6.0
	Tax Saving	21	21.0	21.0	27.0
	Earn Returns	34	34.0	34.0	61.0
	Future Expenditure	39	39.0	39.0	100.0
	Total	100	100.0	100.0	

Chart no. 2

What is your Purpose Behind Investment of funds?

Interpretation:

The above table reveals that the purpose behind investment of funds for 39% of the respondents is future expenditure, earn returns for 43% of respondents, tax saving for 21% of respondents and wealth creation for 6% respondents.

5.2 Reliability Test

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Gender	102.32	272.139	-.169	.866
Age	101.15	269.422	-.029	.868
Marital Status	102.04	268.948	.030	.864
Education	101.57	263.258	.228	.862
Annual Income	101.20	266.525	.078	.865
Nature of Employment	102.01	272.273	-.199	.866
Place of Work	102.65	269.240	.025	.864
Geographical Region	102.09	270.588	-.065	.866
How would you rate your overall knowledge about financial matters compared with other people?	101.07	292.268	-.776	.879
Pension Funds	100.56	243.885	.833	.850
Bank Fixed Deposits	100.55	243.624	.739	.851
Savings Current ac	100.48	249.363	.605	.855
PPF	100.59	247.881	.620	.854
Stocks Shares	100.54	246.150	.692	.852
Bonds Debentures	100.59	252.689	.497	.857
Mutual Funds	100.50	247.990	.639	.854
Life Insurance	100.61	245.170	.718	.852
Bank Loans	100.57	251.480	.521	.856
How often do you acquire financial and economic information from sources such as newspapers, magazines, TV and Internet?	100.62	245.592	.714	.852
Before I buy something I carefully Consider whether I can afford it	100.53	242.110	.590	.853
I pay my bills on time	100.39	249.473	.459	.857
I set long term financial goals and strive to Achieve them	100.32	247.169	.495	.856

I find it more satisfying to spend money than to save it for long term	100.44	245.400	.563	.854
I tend to live for today and let tomorrow take care of itself	100.38	251.996	.412	.858
I keep a close personal watch on my Financial affairs	100.30	247.606	.535	.855
I am prepared to risk some of my own money when saving or making an investment	100.34	245.398	.616	.853
While investing your money which factor you prefer the most?	99.24	252.669	.247	.865
How much risk are you willing to take while investing your money?	101.94	267.996	.029	.866
Which AMC (Asset Management Company) do you prefer the most?	99.26	244.154	.282	.869
Where do you find yourself as a Mutual Fund investor?	101.03	266.837	.079	.865
In which sector would you like to invest?	102.15	266.715	.165	.863
What is your Purpose Behind Investment of funds?	100.70	251.081	.607	.855
I would go for the best possible return even if there were risk involved.	100.44	245.400	.563	.854
How would you describe your typical attitude when making important financial decisions?	100.38	251.996	.412	.858
What amount of risk do you feel you have taken with your past financial decisions?	100.30	247.606	.535	.855
Has your workplace or organization ever organized any informative training program related to making investments or any other financial affair which you think has increased your financial literacy level?	101.75	267.624	.015	.868

Interpretation:

From the above table it is clear that the value of Cronbach's Alpha is >.70 which indicates high level of internal consistency for our scale.

5.3 Hypothesis Testing:

H0: There is no relationship between level of financial knowledge and willingness of taking risk by the investor.

H1: There is strong and significant relationship between level of financial knowledge and willingness of taking risk by the investor.

Correlations		How would you rate your overall knowledge about financial matters compared with other people?	How much risk are you willing to take while investing your money?
How would you rate your overall knowledge about financial matters compared with other people?	Pearson Correlation	1	-.033
	Sig. (2-tailed)		.741
	N	100	100
How much risk are you willing to take while investing your money?	Pearson Correlation	-.033	1
	Sig. (2-tailed)	.741	
	N	100	100

Interpretation:

The other correlation coefficient that has been computed amongst the variables is indicative of the fact that whether level of financial knowledge has any significant relationship with willingness of taking risk by the investor. It can be seen that the correlation coefficient computed in relation to the same is -0.033 which is a negative correlation between the chosen set of variables. Thus, it can be seen that the level of financial knowledge does not have a significant relationship with willingness of taking risk by the investor.

H0: There is no relationship between level of financial knowledge and attitude when making important financial decisions.

H1: There is strong and significant relationship between level of financial knowledge and attitude when making important financial decisions.

Correlations			
		How would you rate your overall knowledge about financial matters compared with other people?	How would you describe your typical attitude when making important financial decisions?
How would you rate your overall knowledge about financial matters compared with other people?	Pearson Correlation	1	-.346**
	Sig. (2-tailed)		.000
	N	100	100
How would you describe your typical attitude when making important financial decisions?	Pearson Correlation	-.346**	1
	Sig. (2-tailed)	.000	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

Interpretation:

The other correlation coefficient that has been computed amongst the variables is indicative of the fact that whether time spent on social media has any significant relationship with probability of finding correct applicants. It can be seen that the correlation coefficient computed in relation to the same is -0.346 which is a negative correlation between the chosen set of variables. Thus, it can be seen that the level of financial knowledge does have significant negative relationship with attitude when making important financial decisions.

6.0 FINDINGS AND RECOMMENDATIONS

6.1 FINDINGS

- 56% of the respondents are male and 44% of the respondents are female.
- 32% of the respondents are of the age group of 31-40 years, 29% of the respondents are 41-50 years of age, 17% of the respondents are 51-60 years, 17% are 20-30 years and 5% of the respondents are more than 60 years of age.
- 72% of the respondents are married and 28% of the respondents are unmarried.
- 61% of the respondents are graduates, 17% of the respondents are post-graduates, 14% of the respondents are 10+2, and 8% of the respondents are PhD.
- 38% of the respondents have an annual income of 10-15 lacks, 35% of the respondents have an annual income of 5-10 lacks, 15% of the respondents have an annual income of 15 lacks and above and 12% of the respondents have an annual income of 2-5 lacks.
- 75% of the respondents are non-government employees whereas 25% of the respondents are government employees.
- 89% of the respondents have their place of work at urban region and 11% of the respondents have their place of work at rural region.

6.2 RECOMMENDATIONS

To increase the investment awareness of the salaried employees, the following recommendation should be implemented by the concerned bodies:

It is recommended the government, policy makers as well as financial institutions and banks to take necessary steps to improve the level of financial literacy among the population, if they want to increase the demand for those investment avenues that are comparatively riskier and can give higher returns.

Financial literacy is an issue that should also concern higher institutions. The most important way to improve the level of financial literacy is through financial education. The Ministry of Education (MoE) and the Universities available in India need to identify and create programs that will fulfill the need for financial education for students with differences in existing financial knowledge, skills, and abilities. This can help students to control their financial future. Universities need to find both more effective and more creative ways to reach students, and could consider revising their curriculum to meet general education requirements by evaluating the delivery of financial education for students in order to identify effective approaches, delivery channels, and other factors that enhance effectiveness.

6.3 CONCLUSION

It is observed that the overall risk perception of investors lies between moderate to high level with very minute difference between the two levels. Since, maximum frequency lies in the moderate level, we can conclude that majority of investors have an overall risk perception of moderate level. This is a little different from the findings of other researchers where they concluded that people have high level of risk perception.

The decision-making process is complicated and does not only depend on risk- return relationship. People make decision based on the importance of the objectives as well. The objectives could be tax savings, capital appreciation, dividends etc. Investors who look for tax saving options do not trade and keep their investment for long term or they invest in fixed deposits where they do not have to pay extra tax on the appreciation. Capital appreciation is one of the most important objectives for all the investors. Also, very few investors find it important to have a quick short-term gain on their investment avenue.

It is also observed that demographic identity of an individual like age, marital status and gender does not affect the choice of investment of an individual. However, experience and financial literacy do have a significance on the level of risk of an investor and his choice of Investment Avenue. The results are inconsistent with the previous study done by Chen and Volpe (2002) and Barber and Odean (2011) who opined that gender plays an important role in decision making.

7.0 REFERENCES

[1] Al-Tamimi, H.A.H., & Kalli, A.A.B. (2009). Financial literacy and investment decisions of UAE investors. The Journal of Risk Finance, 10(5), 500 – 516.

[2] Australia and New Zealand Banking Group (ANZ). (2003). ANZ survey of adult financial literacy in Australia.

[3] Bashir, T., Ahmed, H. R., Jahangir, S., Zaigam, S., Saeed, H., & Shafi, S. (2013). Investment preferences and risk level: Behaviour of salaried individuals. IOSR Journal of Business and Management, 10(1), 68-78.

[4] Beal, D. J., & Delpachitra, S. B. (2003). Financial literacy among Australian university students. Economic Papers, 22, 65-78.

[5] Bhushan, P., & Medury, Y. (2013). Gender differences in investment behaviour among employees. Asian Journal of Research in Business Economics and Management. 3(12), 147-157.