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A study on risk perception and portfolio management of equity investors in coimbatore city

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Abstract

Identifying key factors influencing individual investor's decision to make portfolio choices is important to understand their different investment behavior. This paper explores individual investor's preference for portfolio choices and provisionally investigates impacts of risk tolerance and risk perception on their investment decision. Specifically we decide socio-economic status difference in investment preference for portfolio choices with respect to investor's age, income level. Using chi-square analysis on investment experiments to obtain some evidences from a sample of 200 respondents in survey; our results indicate that investor's decisions to make their portfolio choices are significantly and negatively related to personal income level. This finding implicates that investor with higher risk tolerance level shows higher likelihood to make their investment decision on portfolio choices it is found that male investor demonstrates much preference on portfolio choices with higher percentage of total return.

Keywords: Portfolio Management, Risk Perception, Equity Investors, Risk Management.

Introduction

Portfolio management concerns the constructions and maintenance of a collection of investment. It is investment of funds in different securities in which the total risk of the portfolio is minimized, while expecting maximum return from it. It primarily involves reducing risk rather than increasing return. Return is obviously important though, and the ultimate objective of portfolio manager is to achieve a chosen level of return by incurring the least possible risk.

Determinants of risk attitudes of individual investors are of great interest in a growing area of finance known as behavioral finance. Behavioral finance focuses on the individual attributes, Psychological or otherwise, that shape common financial and investment practices. Unlike traditional assumptions of expected utility maximization with rational investors in efficient markets, behavioral finance assumes people are normal. Despite great interest in this area, not much research looks at the underlying factors that may lead to individual differences and play a significant role in determining people's financing and investment strategies in emerging markets.

Study of risk perception and its impact on investment behavior is one of the core investigation issues of behavioral finance research.

Review of related Literature

In this section, the literature review including three parts. First, behavior finance perspective of individual investor. Second, individual investor's risk perception, risk tolerance and portfolio choice. Third, individual investor's socio-economic status differential and risk tolerance. The results for gender, education level and income level are consistent with the earlier literature. Previous literature indicating those factors on risk-taking and risk tolerance are gender, age, marital status, occupation, income level, education level and economic environments expectations, which might influence an individual investor's level of risk taking, but the factor of education level might not. Those studies are classified by three catalogers.

- **Behavior Finance Perspective of Individual Investor**

As a result of traditional finance theory appears to play a limited role in understanding this issues such as (1) why do individual investors trade, (2) how do they perform the task, (3) how do they choose their portfolios to conform their conditions, and (4) why do returns vary so quickly even across stocks for reasons other than risk. In the new arena of behavior finance or so-called behavior economic, we could to interpret about individual investors behave in their invest choice more completely. Most of behavioral finance researchers often claimed that the reality results presents no unified theory unlike traditional finance theory appears expected utility maximizations using rational beliefs. Its means those scholars in this field actually postulate whole investors in financial market are rationales; they can't influenced through any factors only maximum profit for themselves. Most authors show behavior finance perspective on individual investor, such as Deaux and Emswiller (1974), Lenney (1977), Maital et al. (1986), Thaler and Johnson (1990) and Beyer and Bowden (1997). Those authors are to exclaim that individual investor would demonstrate different risk attitude when facing investment alternatives. Later instruction in our research, we called risk perception and risk tolerance of individual investor. Comparing with previously research, current study is to focus on external factors and psychological factors how to affect investor's investment decision and portfolio choice. For instance, Annaert et al. (2005), Wang et al. (2006) indicate the impact of information asymmetric problem on investor behave, this is another subject in behavioral finance field. Most of these researches are pay close attention to behavioral finance, especially in financial products choices (investment) and behave of individual investor invest related.

- **Risk Perception, Risk Tolerance and Portfolio Choice**

Financial risk tolerance is defined as the maximum amount of uncertainty that someone is willing to accept when making a financial decision. Although the importance of assessing financial risk tolerance is well documented, in practice the assessment

process tends to be very difficult due to the subjective nature of risk taking (the risk of investor willing to reveal their risk tolerance) and objective factors such as Grable and Joo (1997), Grable and Lytton (1999), and Grable (2000).

Risk tolerance represents one person's attitude towards taking risk. This indicated is an important concept that has implications for both financial service providers (asset management institution or other financial planner) and consumers (investors). For the latter, risk tolerance is one factor which may determine the appropriate composition of many assets in a portfolio which is optimal and satisfied investors invest preference in terms of risk and return relative to the needs of the individual investors Droms, (1987), Hallahan et al., (2004).

There are some empirical evidence showing the impact of risk perception; risk tolerance and socio-economic on portfolio choice, for instance, Carducci and Wong (1998), Grable and Joo (1997), Grable and Lytton (1999), Grable (2000), Hallahan et al., (2003), Hallahan et al., (2004), Frijns et al., (2008), and Veld and Veld-Merkoulova (2008). In terms of different risk perception or risk tolerance level, individual investor may show different reaction base upon their psychology factor and economic situation, which would lead to heterogeneous portfolio choice for individual investors. For this reason, it is crucial to recognize and attitudinal how individual investors with different risk perceptions and risk tolerance make their invest products choice on investment plan, in particular socio-economic status differentials may make their choice vary and difference.

- **Investor's Socio-Economic Status and Risk Tolerance**

Some researchers have indicated that the validity of widely used demographics as determinants of risk tolerance is noteworthy as the relationship between socio-economic status differences including gender, age, income level, net assets, marital status, educational level and investment decision or portfolio choice. With regard to the financial risk tolerance literatures, there is much interest in the demographic determinants and risk attention (involving three risk types: risk aversion, risk moderate and risk seeking) is particularly focused on age, gender, education level, income level, marital status, the number of dependents and net assets. Specifically, although debate remains on some issues, a range of common findings are generally observed. There are five phenomenons in socio-economic status variables differential and portfolio choice as the following: First, risk tolerance decreases with age (e.g., Morin and Suarez 1983; Roszkowski, Snelbecker, and Leimberg 1993). Second, females have a lower preference for risk than males (e.g., Roszkowski, Snelbecker, and Leimberg 1993; Grable 2000). Third, risk tolerance increases with education level (e.g., Roszkowski, Snelbecker, and Leimberg 1993; Haliassos and Bertaut 1995). Fourth, risk tolerance increases with income level and net assets (e.g., Cohn et al. 1975; Roszkowski, Snelbecker, and Leimberg 1993; Bernheim, Skinner, and Weinberg 2001). Fifth, single (i.e., unmarried) investors are more risk tolerant than married (e.g., Roszkowski, Snelbecker, and Leimberg 1993).

Objectives of the Study

- To find out the risk perception of equity investors in Coimbatore city
- To bring out the importance of portfolio management of equity investors
- To know about the Investors knowledge and experience of investing in equities

Scope of the Study

- It relates to investment in equities
- Understanding of customer / or investors about the equities
- It also help us to know the port folio management of equity investors

Source of Data

The task of collecting data begins after a research problem has been defined and plan is chalked out for this study data is collected from primary and secondary sources.

Research Plan

- **Data source:** Primary and Secondary Data
- **Research Approach:** Survey Method
- **Research Instrument:** Questionnaire
- **Contact Method:** Direct-Personal
- **Sample Size:** 200
- **Sampling Technique:** Simple Random Sampling

Data Analysis of the Study

Type of Investment Preferred and Time taken for Evaluation of Performance of Investment by the Respondents

Table - 1

Sl. No	Type of Investment	No. of Respondents	%	Period of Time	No. of Respondents	%
1	Bonds	51	25.50	Monthly	71	35.50
2	Equities	91	45.50	Quarterly	42	21.00
3	Bank Deposits	58	29.00	Annually	50	25.00
4	T-Bills	0	0.00	Over 5 Years	37	18.50
	Total	**200**	**100.00**	**Total**	**200**	**100.00**

From the above table, it shows that 45.5% of the respondent's preferred Equity type of investments, 29% of the respondents preferred Bank Deposits and 25.5% of the respondents preferred bonds type of investment. No one prefers T Bills. , it is clear that 35.5% of the respondents judge the performance of investment in a month, 25% of the respondents judge the performance of investment, 21% of the respondents judge the performance of investment Quarterly and 18.5% of the respondents take over 5 years to judge the performance of the investment.

Performance about their Financial Future and age from which the Respondents are investing

Table -2

Sl. No	Financial Future	No. of Respondents	%	Age of Investing	No. of Respondents	%
1	Very optimistic	45	22.50	Age 80 and Over	35	17.50
2	Positive	68	34.00	Age 70 to 79	46	23.00
3	Unsure	58	29.00	Age 60 to 69	52	26.00
4	Pessimistic	29	14.50	Age 50 to 59	59	29.50
	Total	**200**	**100.00**	Age under 40	8	4.00
				Total	**200**	**100.00**

From the above table, it shows that 34% of the respondents are positive about their financial future, 29% of the respondents are unsure, 22.5% of the respondents are very optimistic about their financial future and 14.5% of the respondents are Pessimistic. It is found that 29.5% of the respondents have invested in age between 50 to 59 years, 26% of the respondents have invested in the age between 60 to 69 years, 23% of the respondents have invested in the age between 70 to 79 years, and 17.5% of the respondents have invested in the age 80 and above. It is revealing that people under 40 years only 4% have been investing.

Understanding comfort level in stock Investing and Investor Perception

Table - 3

Sl. No	Understanding and Comfort level	No. of Respondents	%	Best Statement	No. of Respondents	%
1	No Experience in Stock Market	59	29.50	Some Current Income	54	27.00
2	No Experience, but some level of comfort	40	20.00	High Current Income	15	7.50
3	Some Experience & Interest	33	16.50	High Total Return	82	41.00
4	Reasonable Experience	45	22.50	Substantial Return	49	24.50
5	Extensive Background and good comfort	23	11.50	**Total**	**200**	**100**
	Total	**200**	**100**			

From the above table, shows that 29.5% of the respondents have no experience in stock market, 22.5% of the respondents have reasonable experience, 20% of the respondents have no experience but some level of comfort, 16.5% of the respondents have some experience and interest and 11.5% of the respondents are have extensive background and good comfort. It is found that 41% of the

respondents perceive high total return as the best statement, 27% of the respondents perceive some current income and are very safe, 24.5% of the respondents are perceive substantial return.

Attitude about Financial Risk

Table - 4

Sl. No	Attitude about Financial risk	No. of Respondents	%
1	Diversified investment portfolio	51	25.50
2	I Only invested with extra money I can afford to loss	36	18.00
3	Associated with playing in the stock	82	41.00
4	The Higher the investment yield or rate of return the greater the risk	31	15.50
	Total	**200**	**100.**

From the above table, it is clear that 41% of the respondents are associated with playing in the stock market, 25.5% of the respondents have diversified investment portfolio, 18% of the respondents afford to loss, and 15.5% of the respondents has an attitude that The Higher the investment yield or rate of return the greater the risk.

Portfolio Activities by the Respondents

Table - 5

Sl. No	Any Portfolio Activities	No. of Respondents	%
1	Yes	99	49.50
2	No	101	50.50
	Total	**200**	**100.00**

From the above table, shows that 50.5% of the respondents do not have any portfolio activities and 49.5% of the respondents are having portfolio activities.

Risk Tolerance since the Time of Investment and Response to Market Decline

Table - 6

Sl. No	Risk Tolerance	No. of Respondents	%	Liquidation process	No. of Respondents	%
1	More Willingness	0	0.00	Immediately	56	28.00
2	Less Willingness	69	34.50	At 90000	18	9.00
3	Risk factors has no influence	72	36.00	Would Wait for Market turnaround	81	40.50
4	4	No Idea	59	At 75000	45	22.50
	Total	**200**	**100.0**	**Total**	**200**	**100.00**

From the above table, it shows that for 36% of the respondents risk factor has no influence since the time of first investment, 34.5% of the respondents have less willingness to take on risk, 29.5% of the respondents have no idea about risk . It is inferred that 40.5% of the respondents would wait for market turnaround, 28% of the respondents would immediately liquidate and move to a more stable investment, 22.5% of the respondents will move at 75000 for stable investment and 9% of the respondents will move at 90000 for stable investment

Time Horizon for Withdrawals and Growth Expected Of Investment in 5 Years

Table - 7

Sl. No	Time Horizon for withdrawals	No. of Respondents	%	Growth Expected	No. of Respondents	%
1	Currently	65	32.50	0 to 15%	52	26.00
2	Less than 3 Years	36	18.00	15% to 30%	45	22.50
3	Between 6 to 15 Years	70	35.00	30% to 50%	57	28.50
4	After 15 Years	29	14.50	Above 50%	46	23.00
	Total	**200**	**100**	**Total**	**200**	**100**

From the above table, it is found that 35% of the respondents will make withdrawals between 6 to 15 years, 32.5% of the respondents currently need to make withdrawals, 18% of the respondents will withdraw in less than 3 years and 14.5% of the respondents will withdraw after 15 years. It is clear that 28.5% of the respondents expect their investment to grow from 30% to 50%, 26% of the respondents expect their investment to grow from 0 to 15%, 23% of the respondents expect a growth above 50% and 22.5% of the respondents expect a growth from15% to 30%.

Sharing Information about Risk with Consultant, Learns from Risk and Measure to Control Risk

Table – 8

Sl. No	Feel Free	No. of Respondents	%	Learn From Risk	No. of Respondents	%	Measure to Control Risk	No. of Respondents	%
1	Yes	127	63.50	Yes	71	35.50	Avoidance	89	44.50
2	No	73	36.50	No	129	64.50	Modification	111	55.50
3	**Total**	**200**	**100**	**Total**	**200**	**100**	**Total**	**200**	**100**

From the above table, it is found that 63.5% of the respondents feel free to share information on risk with consultant and 36.5 % the respondents do not feel free to share information with the consultant. It is found that 64.5% of the respondents do not

learn from their risk, and 35.5% of the respondents learn from their risk. The table shows that 55.5% of respondents control the risk by modification and 44.5% of the respondents avoid risk.

Chi – Square Analysis for Income Level and Age of Investing

Table - 9

Age of Investing / income level	From 25 to 35	From 35 to 45	From 45 to 55	Above 55	Grand Total
Rs.5000	8	14	14	8	**44**
Rs.5000 to Rs.6000	13	14	9	3	**39**
Rs.6000 to Rs.7000	11	13	13	8	**45**
Rs.7000 to Rs.8000	7	16	9	5	**37**
Above Rs.8000	6	11	13	5	**35**
Grand Total	**45**	**68**	**58**	**29**	**200**

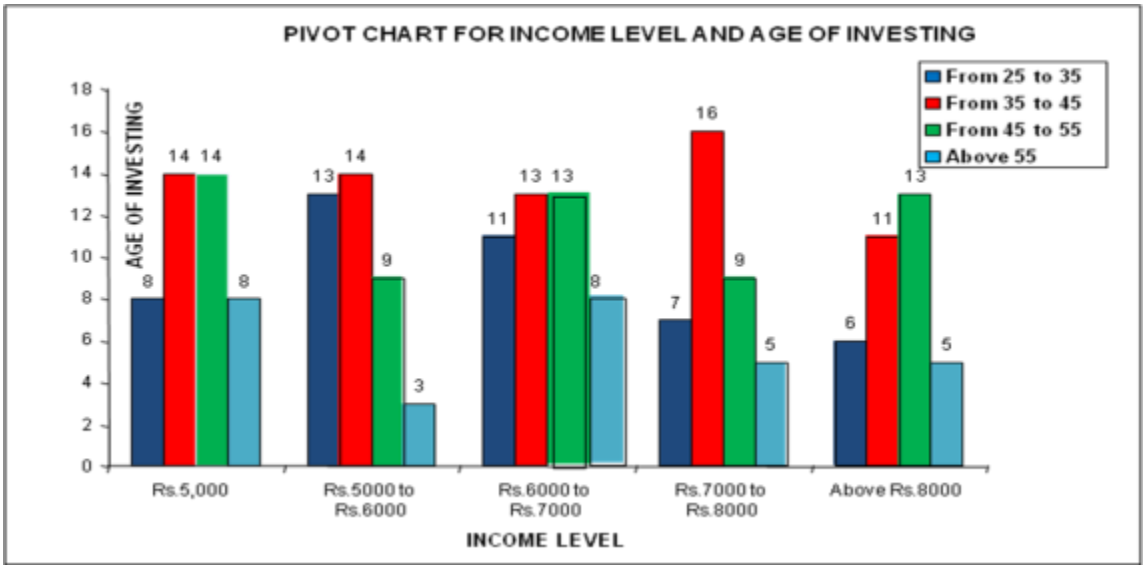
Null Hypothesis (H_0): No Significant relationship between Income and Age of investing.

Alternate Hypothesis (H_1):There is a Close Significant relationship Income and Age of investing.

factor	calculated chi-square value	table value	degree of freedom	remarks
Income Level	8.267	21.026	12	Not Significant

It is noted from the above table that the calculated Chi-square value is less than the table value. So, there is Close relationship between Age group and Age of investing.

Chart - 1



Chi – Square Analysis for Income Level and Performance of Investment

Table - 10

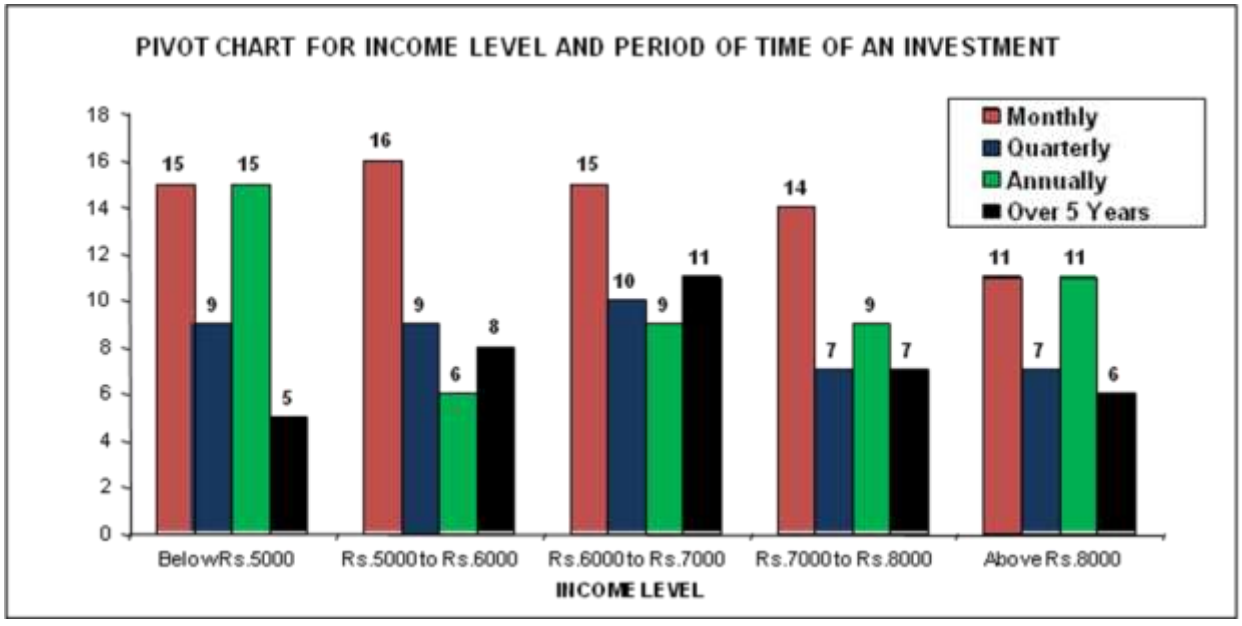
Performance of Investment / income level	Monthly	Quarterly	Annually	Over 5 Years	Grand Total
Below Rs.5000	15	9	15	5	**44**
Rs.5000 to Rs.6000	16	9	6	8	**39**
Rs.6000 to Rs.7000	15	10	9	11	**45**
Rs.7000 to Rs.8000	14	7	9	7	**37**
Above Rs.8000	11	7	11	6	**35**
Grand Total	**71**	**42**	**50**	**37**	**200**

Null Hypothesis (H_0) : No Significant relationship between Income level and Performance of investments.

Alternate Hypothesis (H_1) : There is Close Significant relationship between Income level and Performance of investments

Factor	Calculated chi-square value	Table value	Degree of freedom	Remarks
Income Level	6.978	21.026	12	Not Significant

Chart 1.2



Chi – Square Analysis for Income Level And financial Future

Table - 11

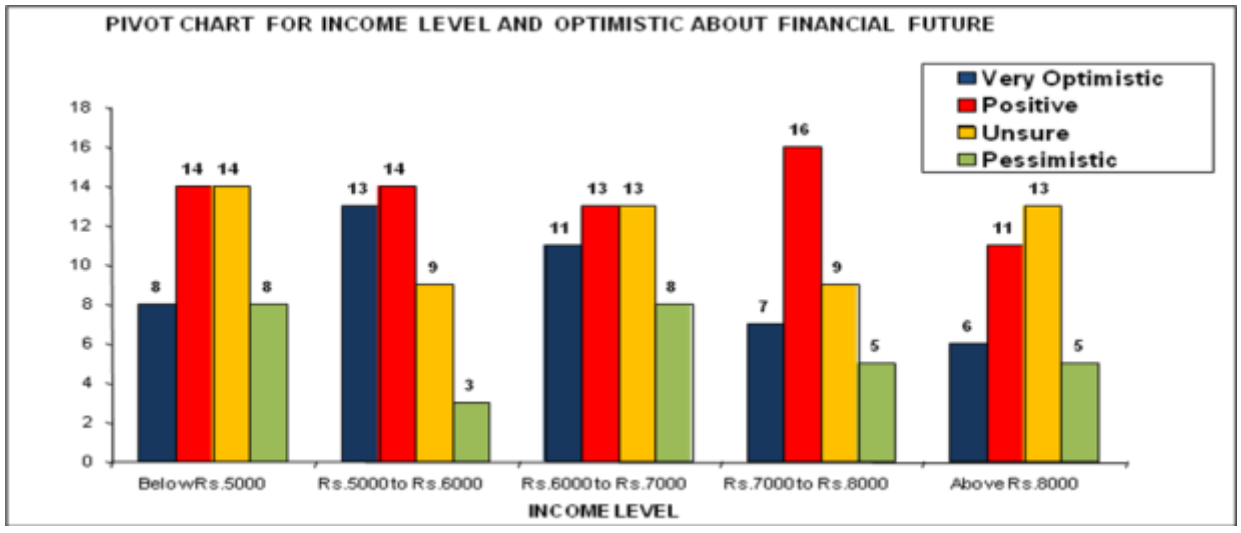
Financial future / income level	Very Optimistic	Positive	Unsure	Pessimistic	Grand Total
Below Rs.5000	8	14	14	8	**44**
Rs.5000 to Rs.6000	13	14	9	3	**39**
Rs.6000 to Rs.7000	11	13	13	8	**45**
Rs.7000 to Rs.8000	7	16	9	5	**37**
Above Rs.8000	6	11	13	5	**35**
Grand Total	**45**	**68**	**58**	**29**	**200**

Null Hypothesis (H_0) : No Significant relationship between Income level and Financial Future.

Alternate Hypothesis (H_1) : There is Close Significant relationship between Income level and Financial Future

factor	Calculated chi-square value	Table value	Degree of freedom	Remarks
Income Level	8.267	21.026	12	Not Significant

Chart 1.3



Chi – Square Analysis for Income Level And attitude About Financial Risk

Table - 12

Financial Risk / income level	Reduces Risk	Invest with Extra Money	Associated with Playing in the Stock	Rate of Returns	Grand Total
Below Rs.5000	14	7	19	4	**44**
Rs.5000 to Rs.6000	15	5	15	4	**39**
Rs.6000 to Rs.7000	9	11	16	9	**45**
Rs.7000 to Rs.8000	7	7	17	6	**37**
Above Rs.8000	6	6	15	8	**35**
Grand Total	**51**	**36**	**82**	**31**	**200**

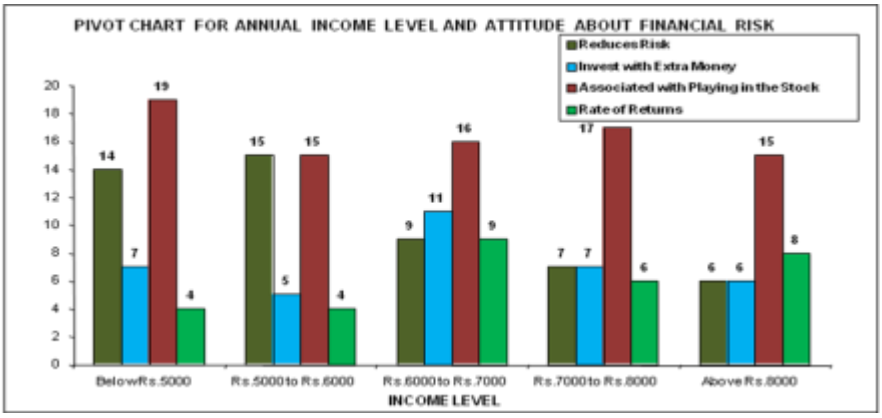
Null Hypothesis (H_0) : No Significant relationship between Income level and Financial Risk.

Alternate Hypothesis (H_1) : There is Close Significant relationship Between Income level and Financial Risk.

Factor	Calculated chi-square value	Table value	Degree of freedom	Remarks
Income Level	11.505	21.026	12	Not Significant

It is noted from the above table that the calculated Chi-square value is less than the table value. So, there is Close relationship between Income level and Financial Risk.

Chart 1.4



Chi – Square Analysis for Income Level and Risk Tolerance

Table - 13

Risk Tolerance / Income Level	Less Willingness	Risk Tolerance	No Idea	Grand Total
Below Rs.5000	12	23	9	**44**
Rs.5000 to Rs.6000	19	7	13	**39**
Rs.6000 to Rs.7000	16	16	13	**45**
Rs.7000 to Rs.8000	13	14	10	**37**
Above Rs.8000	9	12	14	**35**
Grand Total	**69**	**72**	**59**	**200**

Null Hypothesis (H_0) : No Significant relationship between Income level and Risk Tolerance.

Alternate Hypothesis (H_1) : There is Close Significant relationship Between Income level and Risk Tolerance.

Factor	Calculated chi-square value	Table value	Degree of freedom	Remarks
Income Level	13.391	15.507	8	Not Significant

Findings

- 55% of the respondents are not experienced in the stock market.
- 48.5% of the respondents belong to the age between 30 years to 60 years old.
- 45.5% of the respondents are purchased Equities type of investments.
- 34% of the respondents are optimistic of their financial future.
- 41% of the respondents describe high total return as best statement.
- 41% of the respondents are associated with playing in the stock market.
- 28.5% of the respondents are expecting their growth 30% to 50%.
- 55.5% of respondents control the risk by modification.
- From the Chi-Square Analysis, It is clear that there is a close relationship between Age group and Age of investing and Performance of investments.
- From the Chi-Square Analysis, It is confirmed that there is Close relationship between Income level and Financial Future and risk

Suggestions

- Most of the respondents are not aware of Portfolio Management. So,

proper guidance can be given to them. This is to create awareness.

- A regular investor friendly seminar can be organized to suit the timings of the investing public. For instance, Such seminars can be interactive sessions, arranged at frequent intervals.
- The newsletters published help investors. Hence newsletters / bulletins can be published for guidance.
- Efforts should be taken to popularize Equity through appropriate publicity measures.

Conclusion

The study is made to find out "Risk perception and portfolio management of equity investors". The study reveals that the investors in Coimbatore city are not aware of portfolio which would minimize risk and maximize the return. And also it is clear that the investors in Coimbatore city have low level of understanding about risk and the importance of portfolio management as they are not aware these factors. Hence proper should to be taken in order to improve the awareness level in the minds of the investors.

Bibliography

- Alex Kane: (Mar- 1982) Skewness Preferences and Portfolio Choice, Journal of Financial and Quantitative Analysis, Vol 17, No.1.
- Asai, M. and M. McAleer (2007), Portfolio index GARCH: a class of parsimonious dynamic covariance models, Unpublished Paper, University of Western Australia.
- Bollerslev, T. (1990), modeling the coherence in short-run nominal exchange rates: a multivariate generalized ARCH model, Review of Economics and Statistics, 72.
- Campbell, J.Y. (1987), Stock returns and the term structure, Journal of Financial Economics, 18, 373-399.
- Chen, N.F., R. Roll and S.A. Ross (1986), Economic forces and the stock markets, Journal of Business.
- Fama, E.F. and K.R. French (1989), Business conditions and expected returns on stocks and bonds, Journal of Financial Economics.
- F. Modigliani & M.Miller (1958), the Cost of Capital- Corporation Finance and the Theory of Investment, the American Economic Review, Vol.6.
- Freid.D Arditti,(Mar, 1967), Risk and the Required on Equity, Journal of Finance,Vol.22.
- Harry Markowitz (1992) Portfolio Selection: Efficient Diversification of Investments, New Haven, Yale University Press.
- Jorion, P. (2000), Value at Risk: The New Benchmark for Managing Financial Risk, McGraw-Hill, New York.
- McAleer, M. (2005), Automated Inference and Learning in Modeling Financial Volatility, Econometric Theory.
- PrasanaChandra (2006) Projects-Planing-Analysis-Seelection-Financing-Implementation-and Review, Tata McGraw Hill.