Risk Perception Dynamics and Equity Share Investment Behaviour

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CONCEPTUAL FRAMEWORK

Very often it comes to the mind of the people that what are the factors which drives the investors' behaviour. It is also seen that one believes that he/she is behaving rationally while at the same time assuming that others often do not. Most of the investment and financial theories are based on the idea that everyone takes careful account of all available information before making investment decisions. But there is much evidence that this is not the case. Behavioral finance, a study of the markets that draws on psychology, is throwing more light on why people buy or sell the stocks they do - and even why they do not buy stocks at all (Singh R. & Bhowal A., 2007). This research on investor behavior helps to explain the various 'market anomalies' that challenge standard theory. It is emerging from the academic world and is beginning to be used in money management.

IMPACT OF RISK PERCEPTION ON INVESTMENT DECISIONS

It is known that security market is very volatile in nature. The slightest change in any part of the economy affects the trading of securities in the stock market. This is due to the varying level of risk perception of the people.

So, while going for investment in Shares, people try to make proper tradeoffs between risk and return, given that investment in risk free instruments includes bank deposits, postal deposits, insurance etc. Moreover, people are generally risk averse. They like to invest in such instruments, which give higher return for same amount of risk, or same return for less amount of risk. "Psychographics" describe psychological characteristics of people and are particularly relevant to each individual investor's strategy and risk tolerance (R. Adrian, 1993).

Risk perception is the subjective judgment that people make about the characteristics and severity of a risk. Risk perception examines the opinions of people when they are asked to evaluate hazardous or risky activities, substances and technologies. Perceptions of risk play a prominent role in the decisions people make, in the sense that differences in risk perception lie at the heart of disagreements about the best course of action between technical experts and members of the general public (Slovic, 1987), men vs. women (Finucane, Mertz, Flynn, & Satterfield, 2000; Flynn, Slovic, & Mertz, 1994; Weber, Blais, & Betz, 2002), and people from different cultures. Both individual and group differences in preference for risky decision alternatives and situational differences in risk preference have been shown to be associated with differences in perceptions of the relative risk of choice options, rather than with differences in attitude towards (perceived) risk, i.e., a tendency to approach or to avoid options perceived as riskier (Weber & Milliman, 1997; Weber, 2001a).

Now a days, the way in which the equity shares are issued and traded in the stock exchange are just like marketing of a product and it is not merely considered to be a source of finance but also a brand building exercise for the company. The concept of marketing is applicable to the marketing of financial property like shares and bonds. Financial properties are intangible rights of ownership over the company and these are bought and sold and this requires marketing (Kotler P., Keller K., Koshy A., Jha M., 2006). The success and failure of any public issue of equity share as well as demand for the shares in the stock exchange is largely dependent on the brand image of the company, the advertisement for the equity shares, the promotional steps taken by the company, the timings of the issue etc (Hong H., 2005). Similarly, the trading of the existing shares in the stock exchange also depends on the efforts being given by the company to market the shares because ultimately it is the marketing efforts of the company which will build the brand of the company in the stock market and enhance the market capitalisation of the company.

So, it is concluded that all the four [4] Ps of the marketing mix (Kotler P., Keller K., Koshy A., Jha M., 2006), i.e., product, price, place and promotion are also applicable to the marketing of the equity shares. As it is a well known fact that there is a degree of risk perception involved in the equity shares (Guiso L.at el., 2005), all the aspects of the marketing mix have different impact on the risk perception of the people.

SCOPE OF THE STUDY

The study is empirical in nature. The study has focused on impact of risk perception from the perspective of elements

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of marketing mix on equity share investment behaviour of human resources of Oil India Limited. The study was done between 1st April 2006 and 31st October 2006. The present study covers the employees of Oil India Limited only. The employee of a corporate house may invest [i] either, in the shares of the company where he is working, i.e. shares of OIL, [ii] or in the shares of the company where he is not working, i.e., shares of other than OIL. The third way to invest in the equity shares are to invest through indirect route, i.e., through mutual fund and unit linked insurance plan etc. This study has covered the investment in the equity shares other than OIL only. In the present study, the employees of all the departments have been considered including officers and non- officers. Moreover, in the present study, any kind of technical aspect related to equity share investment is not considered.

JUSTIFICATION OF STUDYING OIL INDIA LIMITED AS A REPRESENTATIVE CASE

The Oil India Limited is the MINIRATNA public sector unit of government of India and it is among the very few public sector companies of government of India; the registered office of which is situated in Assam. Moreover, the human resources of this company are one of the highly paid in the country. Another reason for choosing Oil India Limited is that this company has introduced the concept of strategic business unit [SBU]. The success of SBU depends on the active cooperation of the employees. The employees can contribute to their best extent only when they will be free from the worries relating to their financial planning and investment.

OBJECTIVES OF THE STUDY

1. The objective of the present study is to identify the impact of risk perception relating to 4 Ps of marketing, i.e., product, price, promotion and place on the equity share investment decisions of the human resources of organised sector.
2. To ascertain the degree of influence of 4 Ps of marketing on the equity share investment decision of the human resources of organised sector.

HYPOTHESIS OF THE STUDY

1. The 1st null hypothesis [H_{01}] considered for the study is "There is influence of marketing mix driven measure of risk perception on the equity shares investment behaviour of the human resources of Oil India Limited."
2. The 2nd null hypothesis [H_{02}] considered for the study is "The degree of influence of various marketing mix driven measures of risk perception on the equity shares investment behaviour of the human resources of Oil India Limited are different."

METHODOLOGY OF THE STUDY

In order to carry out the study of the research problem, the following methodology was adopted.

1. Case Study Method of Research

As the title suggests, the Case Study Method of Research has been followed here.

2. Universe of the study

All the employees' working in OIL at Duliajan Head Office (i.e. Executives, Non-Executives) constituted the universe of the study. The size of the universe was 8480.

3. Sample & Sample Unit: -

Here each employee was considered as the unit of the study. Sample selection was based on simple random sampling basis. Considering the time and resource constraints, the sample size was fixed at 424 [i.e. 5 % of the population size i.e. 8480 employees]. Out of these, a response from 400 employees was only received. This accounted for 93.86 % response rate. After scrutiny of responses, only 378 responses were finally selected, as they were complete in all respects.

4. Data Requirement

For collecting **primary data**, discussion and interactions with managerial personnel, employees of different departments at different levels were conducted along with a questionnaire designed specially for the purpose.

Analysis of company literatures, pamphlets, appraisal related documents, and other relevant information on the equity shares etc. were also considered for the study as Secondary data.

5. Questionnaire Design

In order to gain an in-depth understanding on the topic, a specially structured questionnaire was prepared. The following paragraphs will throw some light on the process of questionnaire design.

Wilbur G. Lewellen, Ronald C. Lease, Gary G. Schlarbaum (Lewellen W.G. at el., 1977) did a study on investment behaviour of individual investors in the year 1977. In the study of Wilbur G. Lewellen, Ronald C. Lease, Gary G. Schlarbaum, they have collected the data of the investors who are registered with a leading brokerage firm. After that, they have asked the questions like the investment goal. Other questions in the case of study done by Wilbur G. Lewellen, Ronald C. Lease, Gary G. Schlarbaum; were on portfolio selection, attitude towards risk, decision methods, usefulness of the different information sources, hours per months they spent on investment analysis, money spend on periodicals, whether he is using investment vehicles or not, percentage of transaction which took place in NYSE, No. of transactions, question on portfolio composition, Question of portfolio evaluation, and some questions on risk perception. In our case, most of the investors are not aware about the different technical aspects of the investment in equity shares as mentioned above. This study was not in Indian context and the questions to be asked to the respondents have to be translated into the Indian context. Moreover, the equity investment culture in the town of Duliajan among the human resource of Oil India Limited is quite new and they are not expected to be familiar with some of the complex terminology of the stock market so there was a need to frame the questionnaire in such a way which is understandable to them.

In the Indian context, a study is made by V.K. Ranjith in 2002 (Ranjith V.K., 2002) where he has conducted the experiment on the investors by giving eight hypothetical scrips and four real life scrips and asked the investors to make decisions to invest and after that he has calculated the mean and variance based on the decisions of the investors. V. K. Ranjith has assigned some weights to the scrips based on their riskiness and he has calculated the risk perception score based on that weights. Again he has studied the motive behind the purchase of shares and factors which have affected the decision to invest in shares.

But after discussion with some of the experts in the area, the researcher noticed that some of the aspects of the investment behaviour have not been covered like the timings of the investment, i.e., past, present and future. Moreover, V.K. Ranjith has measured the behaviour and attitude on the three point scale which is not considered to be a good enough scale of measurement.

So, after going through all these previous publications and discussions with some of the well-known personalities in the area of research, the variables have been identified. The sequences of the questions were as follows:

Question no. 1 was related to the name of the respondents which was made optional as most of the respondents do not want to disclose their name with regard to their investment.

Question no.2 was related to their equity investment in the past, present and future.

Question no. 3 was related to the perception of risk for equity shares on a five point scale as very risky, somewhat risky, moderate, somewhat safe and exclusively safe.

The next sets of questions were related to the measurement of risk perception as a latent variable arising from the element of marketing mix. Here, the risk perception was the latent variable and total 40 items were identified to measure the risk perception.

For the purpose of measuring the risk perception for equity share investments, certain variables were identified keeping in view equity shares as a product to be marketed as stated in the framing of hypotheses (Kotler P., Keller K., Koshy A., Jha M., 2006). In this regard, several books and journals have been consulted. Some of those are as follows:

- In April 1990, MacCrimmon and Wehrung (MacCrimmon K.R. and Wehrung D.A, 1990) had published a paper where they have devised a tool for measuring risk propensity of the top executives of the top 509 companies in the world. MacCrimmon and Wehrung have measured the risk propensity in three ways:
  1] Measures derived from behaviour in hypothetical, standardized situations framed using a basic risk paradigm that has an underlying theory of risk,
  2] Measures derived from behaviour in naturally occurring risky situations, and
  3] Measures derived from self-reported attitudes towards taking risks.
- In 1992, Sim B. Sitkin and Amy L. Pablo published a paper reconceptualising the determinants of risky behaviour (Sitkin S. B. and Pablo A.L., 1992).
- Once again in 1995, Sim B. Sitkin & Laurie R. Weingart wrote a paper highlighting the determinants of risky decision making behaviour and the role of risk perceptions. (Sitkin S.B., Weingart L.R., 1995). The variables identified after reviewing all these literatures and from the discussion with the employees have been put in the simple language and they need to be converted into the Indian situation so that it is understandable to the respondents as the respondents were not supposed to posses technical knowledge about equity investment since the equity investment culture is very new to the region. Several items were generated to measure the overall scores as

regards the risk perception from the perspective of elements of marketing mix. The overall scores were designed to measure the degree of risk perception by the employees of Oil India Limited. Total 40 items were identified and the employees were asked to give their opinion on a five-point scale. The statements with regard to the different items relating to risk perception of equity share investment were as follows:

- The first twenty one items are related to the product feature driven measure of risk perception. These are as follows:
  Item 1.related to idea about the investment in equity shares.
  Item 2 related to certainty of income.
  Item 3 related to steady income.
  Item 4 related to guarantee of income.
  Item 5 related to guarantee of assured income.
  Item 6 related to the difficulty in calculating income from investment from equity shares.
  Item 7 related to awareness of the complex rules and regulations of equity.
  Item 8 related to the understanding of complex rules and regulations of equity shares investments.
  Item 9 related to the amount of money required to invest.
  Item 10 related to the certainty of the return of the invested sum.
  Item 11 related to the guarantee of the return of the invested sum.
  Item 12 related to the monitoring of the share market.
  Item 13 related to the time for monitoring the share market.
  Item 14 related to utilizing market information for investment related decisions.
  Item 15 related to the complexity in share investment.
  Item 16 related to the hassles in investment in share market.
  Item 17 related to the difficulty in monitoring macro economic data.
  Item 18 related to the selection of a company for the investment.
  Item 19 related to the selection of number of equity shares for investment.
  Item 20 related to monitoring the financial and non-financial performance of the company.
  Item 21 related to the understanding of the buying and selling price fixation mechanism.
- The next four items are related to price features driven measure of risk perception.
  Item 22 related to the confidence of investor regarding time and the price at which equity shares are to be bought and sold for a best bargain.
  Item 23 related to de-motivation from the pattern of change in the price of equity shares.
  Item 24 related to the difficulty in tracking the daily price movement of equity shares.
  Item 25 related to advice about the investment in equity shares.
- The third sets of items which are nine in number are related to promotion features driven towards measuring of risk perception.
  Item 26related to the education required for investment in equity shares.
  Item 27 related to the opinion of others that investment in equity shares is risky.
  Item 28 related to availability of coaching/counseling /share investors' forum locally.
  Item 29 related to availability of the information /article/papers in vernacular medium regarding the equity share investment.
  Item 30 related to the irregularity of information /article/papers in vernacular medium regarding the equity share investment.
  Item 31 related to the amount of information/article/paper in vernacular medium regarding the equity share investment.
  Item 32 related to equity shares scandals reported in papers.
  Item 33 related to experience of others that they suffer loss in share investment.
  Item 34 related to local availability of equity shares.
- The last set of items are related to place features driven measure of risk perception.
  Item 35 related to confidence about the existence of the company of interest.
  Item 36 related to the office of the company locally.
  Item 37 related to the integrity of the local agents.
  Item 38 related to grievance handling and redressal procedure and place.
  Item 39 related to the reliability of service of post office/courier service.

Item 40 related to the fear of to be victimized of fraud committed by others.

Respondents were asked to rate in a five point scale where in respect of the each of the individual items of the questionnaire 5[Five] indicated strongly agree, 4[Four] indicates agree, 3[three] indicates undecided, 2[Two] for disagree, and 1[One] for strongly disagree. Items were so worded that a score of 5 shall indicate highest level of risk perception and 1 shall indicate the lowest level of risk perception.

6. Method of data analysis and interpretation

In the present research work, various tools of statistical analysis, using SPSS statistical software, like ratios, percentages using tables, Cross tables, reliability test, Cramer's V test, Friedman test analysis etc. were done as and when required to arrive at logical conclusion on the sample data. These tests are explained below:

(a) Reliability analysis allows studying the properties of measurement scales and the items that make them up. The Reliability Analysis procedure calculates a number of commonly used measures of scale reliability and also provides information about the relationships between individual items in the scale. Alpha (Cronbach) is a model of internal consistency, based on the average inter-item correlation. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient. In fact, 0.7 or higher is considered "acceptable" in most Social Science research situations.

(b) Cramer's V. is a chi-square based measure of association that involves dividing the chi-square statistic by the sample size and taking the square root of the result. Cramer's V is a measure of association based on chi-square. In case the value of any of the cell value in the table is less than 5, then in case, the chi-square cannot be used and Cramer's V is the more acceptable than chi-square. In the present study, the interpretation of the values of Cramer's V is done as per the Exhibit 1.1.

Exhibit 1.1 : Cramer's V. Interpretation Scale

Cramer's V. Value	**Upto 0.20**	**0.20 - 0.40**	**0.40 - 0.60**	**0.60 -0.80**	**0.80 - 1.0**
Interpretation of Values	Very low level of Association	Low level of Association	Moderate level of Association	High level of Association	Very high level of Association

(c) The Friedman test is the nonparametric equivalent of a one-sample repeated measure design or a two-way analysis of variance with one observation per cell. Friedman tests, the null hypothesis that k related variables come from the same population. For each case, the k variables are ranked from 1 to k. The test statistic is based on these ranks.

Overall risk perception measurement

Based on the survey of literature, pilot study and discussions from the employees of Oil India Limited, total forty variables were identified. And based on these variables, statements are framed where the measurement of Risk Perception of the employees in respect of investment into equity shares was the latent variable. The reliability of the scale is performed and coefficient of Cronbach's Alpha was found to be 0.938 for forty items (or statements) considered for this study. A very high value of Cronbach's Alpha (0.938) is indicative of very high degree of reliability of the scale and it also shows that the items are highly correlated (Nunnaly J, 1978). In the questionnaire, some of the items were under reverse scaling method to ensure the accuracy of the response.

Validity of the Scale

The scale contains 40 items. The maximum one respondent can score in each of the items is 5. Therefore, maximum possible score is 200. Similarly, the minimum one respondent can score in each of the items is 1. Therefore, minimum possible score is 40. The interval of score from 40 to 200 was divided into five equal classes to represent five different levels of perception. Details are given in the Exhibit 1.2. In other words, if the total scores in respect of any respondent lies between 40 and 72, the respondent will be considered to have very low level of risk perception in respect of equity shares, and so on. Based on the above, the following scale has been developed and interpretations of the scale are given in the diagram no. 5.1.

Exhibit No. 1.2 : Interpretation of Risk Perception Scores

Risk Perception Scores	**40 - 72**	**72 - 104**	**104 - 136**	**136- 168**	**168 - 200**
Interpretation of the Risk Perception Scores	Very Low Level of Risk Perception	Low Level of Risk Perception	Moderate Level of Risk Perception	High Level of Risk Perception	Very High Level of Risk Perception

To ascertain the validity of the scale, degree of associationship using Cramer's V. between risk perception measures as observed in item no. 9 of the questionnaire and level of risk perception measured based on the above mentioned scaling technique was calculated. Results of these are given below.

Relationship between 'Risk Perception in respect of Equity Shares' and 'Overall Risk Perception Index'

In the sample as observed in table 1, the observed associationship between 'Risk Perception in respect of Equity Shares of other than OIL' and 'Overall Risk Perception Index' is very low since the value of Cramer's V. is 0.167.

The relationship that was observed in the sample is traceable, given the test, even for the population as the approximated value (0.00) is less than 5% level of significance.

Table 1 : Cross Tabulation of 'Risk Perception in respect of Equity Shares of other than OIL' and 'Overall Risk Perception Index'

Risk Perception in respect of equity shares of other than OIL		Overall Risk Perception index					Total
		Very Low Level of Risk Perception	Low Level of Risk Perception	Moderate Level of Risk Perception	High Level of Risk Perception	very high level of risk perception	
Very risky	Count	0	12	13	41	3	69
	% of Total	0.00%	3.20%	3.40%	10.80%	0.80%	18.30%
Somewhat risky	Count	1	14	50	77	3	145
	% of Total	0.30%	3.70%	13.20%	20.40%	0.80%	38.40%
Moderate	Count	0	7	31	39	5	82
	% of Total	0.00%	1.90%	8.20%	10.30%	1.30%	21.70%
Somewhat safe	Count	2	22	34	19	2	79
	% of Total	0.50%	5.80%	9.00%	5.00%	0.50%	20.90%
Absolutely safe	Count	0	0	2	1	0	3
	% of Total	0.00%	0.00%	0.50%	0.30%	0.00%	0.80%
Total	Count	3	55	130	177	13	378
	% of Total	0.80%	14.60%	34.40%	46.80%	3.40%	100.00%

Source: Compiled From the Questionnaire

In the sample, the observed associationship between 'Risk Perception in respect of Equity Shares of other than OIL' and 'Overall Risk Perception Index' is very low since the value of Cramer's V. is 0.167. The relationship that was observed in the sample is traceable, given the test, even for the population as the approximated value (0.00) is less than 5% level of significance.

Since the level of significance in all the there cases is less than .05, it is easily discernable that scale used for measuring risk perception is also valid.

Table 2

Overall Risk Perception relating to equity shares investment and Investment in equity Shares in the past, present and future

Overall Risk Perception index from the perspective of elements of marketing mix		Investment in the Equity shares of other than OIL in past		Investment in the Equity shares of other than OIL in Present		Investment in the Equity shares of other than OIL in future		Total
		No	Yes	No	Yes	No	Yes	
Very Low Level of Risk Perception	Count	0	3	1	2	0	3	3
	% of Total	0.00%	0.80%	0.30%	0.50%	0.00%	0.80%	0.80%
Low Level of Risk Perception	Count	16	39	19	36	6	49	55
	% of Total	4.20%	10.30%	5.00%	9.50%	1.60%	13.00%	14.60%
Moderate Level of Risk Perception	Count	48	82	58	72	23	107	130
	% of Total	12.70%	21.70%	15.30%	19.00%	6.10%	28.30%	34.40%
High Level of Risk Perception	Count	97	80	116	61	40	137	177
	% of Total	25.70%	21.20%	30.70%	16.10%	10.60%	36.20%	46.80%
very high level of risk perception	Count	10	3	10	3	8	5	13
	% of Total	2.60%	0.80%	2.60%	0.80%	2.10%	1.30%	3.40%
Total	Count	171	207	204	174	77	301	378
	% of Total	45.20%	54.80%	54.00%	46.00%	20.40%	79.60%	100.00%

Source: Compiled From the Questionnaire

In the sample, the observed associationship between 'overall risk perception in respect of equity shares' and 'Investment in the equity shares in the past' is found to be low since Cramer's V. is equal to 0.250. The relationship that was observed in the sample is even traceable, given the test, for the population because the calculated approximated significance (i.e. 0.00) is less than 5% level of significance. The observed associationship between 'overall risk perception in respect of equity shares' and 'Investment in the equity shares in the present' is also found to be low since Cramer's V. is equal to 0.261. The relationship that was observed in the sample is even traceable, given the test, for the population because the calculated approximated significance (i.e. 0.00) is less than 5% level of significance. Similarly, the observed associationship between 'overall risk perception in respect of equity shares' and 'Investment in the equity shares in the future' is found to be low since Cramer's V. is equal to 0.221. The relationship that was observed in the sample is even traceable, given the test, for the population because the calculated approximated significance (i.e. 0.001) is less than 5% level of significance. Thus it can be said that risk perception was the determining factor in the past. It is still the determining factor in the present and it will continue to affect in the future also.

In the table 2 it is seen that in case of investment in the equity shares in the past it is evident that 0.80% of the people have very low level of risk perception and 14.6% of the people have low level of risk perception. So, in total, 15.4% of the respondents think it as not a risky investment, whereas 46.8% of the respondents have high level of risk perception and 3.4% of the respondents have very high level of risk perception. So, in total, 50.2% of the respondents think it as a risky investment. It is also seen that the people with lower risk perception used to invest proportionately more than the people with higher level of risk perception.

From the table 2, it is evident that the investment in the equity shares is lesser than what it used to be in the past irrespective of their level of risk perception. It means that some people had disinvested their holdings over the years. Regarding investment in the equity shares in the future it is seen that the more people are willing to invest in the equity shares in the future irrespective of their level of risk perception.

To understand the relationship between investment in the equity shares in the past, present and future, the spearmen's rank correlation is calculated and it is found that the degree of correlation between 'Investment in the Equity Shares in the Past' and 'Investment in the Equity Shares in the Present' is 0.818 which can be considered to be of very high degree. The degree of correlation between 'Investment in the Equity Shares in the Past' and 'Investment in the Equity Shares in the Future' is 0.385 and 'Investment in the Equity Shares in the Present' and 'Investment in the Equity Shares in the Future' is 0.362. So, it can be concluded that there is comparatively lower degree of correlation between 'Investments in the Equity Shares in the past' and 'Investment in the Equity Shares in the Future'; and 'Investment in the Equity Shares in the present' and 'Investment in the Equity Shares in the Future'. It means that the future is unpredictable and uncertain and when people don't have any control over their future, they become experimental and adventurous as it is seen in the table 2, that the willingness to invest in the equity shares in the future is greater than the present investment in the equity shares by the people. Although it is assumed that the equity share investor behaves with rationality but it is not the case which is seen in the above paragraphs. It is also evident that the investment in the equity shares is changing without any change in the level of risk perception. Thus it can be concluded that although level of risk perception is the determining factor in the investment behaviour but at the same time, knowledge, skill and risk handling is also the determining factors. So, these employees had acquired the necessary knowledge and skill to manage and handle risks from different sources like the print and electronic media, their experience from investing in the equity shares and the experience of their peers of getting good return from the equity market. A study done on explaining risk perception and the results show that demand for risk mitigation being related most strongly to seriousness of consequences of a hazard, not the risk of an accident or the riskiness of the activity. Risk perception is related to conceptions of knowledge which stress the limits of science and different ways of knowing.

Moreover, by investing in the equity market, they have learned the necessary technique to handle the risk.

FRIEDMAN TEST ANALYSIS

After ascertaining that there is influence of risk perception relating to equity shares arising from the various dimensions of marketing mix, the next thing is to find out the degree of influence of different elements of marketing mix. For this purpose, Friedman test analysis is done and the result is tabulated in the following table.

Table 3 : Table of mean of Ranks given to the various dimensions of measuring risk perception

	Mean Rank
Level of risk perception arising from product dimension	2.55
Level of risk perception arising from price dimension	2.81
Level of risk perception arising from promotion dimension	2.50
Level of risk perception arising from place dimension	2.13

Source: Compiled From the Questionnaire

From the Table 3, it is evident in the sample that price driven measure of risk perception is having highest impact on the overall level of risk perception. Product driven measure of risk perception and promotion driven measure of risk perception both seems to be very close competitors although product seems to be having slightly higher impact on the overall measure of risk perception. Place driven measure of risk perception, given the methodology, has got relatively least impact on the overall measure of risk perception.

Table 4 : Test Statistics (a)

N	378
Chi-Square	85.576
Df	3
Asymp. Sig.	.000

A Friedman Test

Since the Asymp. Significance is 0.00 which is less than 0.05(5% level of significance), it can be concluded that the data relating to product driven measure of risk perception, price driven measure of risk perception, promotion driven measure of risk perception and place driven measures of risk perception are not coming from the same population.

CONCLUSION

It is found in the above study that level of risk perception of the human resources of Oil India Limited was the determining factor in influencing the investment decisions in the past, it continues to be the influencing factor in influencing the investment decision in equity shares in the present and it is expected that in the future also it will continue to influence the equity investment decisions. But along with the level of risk perception, the knowledge and skill to manage and handle risk is also very important to make equity investment decisions. It is also evident that different elements of marketing mix influence the equity investment decision together but the impact of different element of marketing mix is of varying degree. Out of the four element of marketing mix, i.e., product, price, promotion and place, the impact of price driven measure of risk perception is highest.

SUGGESTIONS

1. As the willingness to invest in the equity shares in the future is high, so the employer should give necessary guidance and counseling etc. to the employees to encourage them to invest in the equity shares.
2. The HR department of OIL should be given the necessary training and guidance to calculate the risk associated with the security. Then they should be imparted the necessary knowledge and skill to manage and handle high risk scenarios.
3. The HR department should be imparted necessary training to acquire knowledge and skill to be able to understand the price fixation mechanism in shares market so that the fear psychosis resulting from the price driven measure of risk perception can be reduced and as a result, the whole risk perception can be reduced or they will be able to manage and handle risk.
4. Those who have invested in the equity shares should be used to influence those who have not invested in the equity shares. This has to be done in the informal gatherings as well as in the formal gatherings by arranging for the sharing of experiences of equity investment.
5. The organization should regularly publish in its bulletin and arrange for displaying on its notice boards the news relating to the stock market.

LIMITATIONS OF THE STUDY

The output of any endeavor is subjected to certain limitations. Similarly, the present research also underwent the following limitations: -

(a) **Limitations of Statistical tests:** Analyses of the data collected has been done using various statistical tests. These tests itself suffers from certain limitations. Hence, the conclusions arrived at are bound to be influenced by the limitations of the statistical tests employed in the analyses.

(b) **Biased Opinion:** The questionnaire served by the researcher consisted of certain sensitive statements. In spite of the assurance given to the respondents, as regards to the maintenance of the confidentiality of their valued opinion, there is possibility that some of them might have given biased opinion, to safeguard their image in the organization.

(c) **Only One Organization:** The study has been done only for one organization; hence for generalization, more such studies in different organizations need to be conducted.

(d) **Problems in data collection:** The researcher found that few respondents were reluctant to fill the questionnaire. Some of the respondents even delayed the task of filling it. Even the cases of non-response took place at the time of data collection.

SCOPE OF FUTURE RESEARCH

1. A comparative study of the relationship between 'Risk Perception regarding equity investment' and 'Investment behaviour relating to equity share' of the employees across the different organizations operating in India.
2. A Study on the relationship between 'Investment behaviour relating to equity investment' and 'Entrepreneurial Attitude' of the people.

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LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

1) LIMITATIONS:

1) Since many of the leading pharmaceutical companies in India depend on global markets for their export revenues, comprehensive risk management practices do exist in most of the large companies. But in case of many other companies, they need to be contemplated and developed.
2) Since the information sought is confidential, the scope of eliciting information is limited.

2) FUTURE RESEARCH:

Much research on the dominant risk factors mentioned above waits to be done in order to explore the most appropriate tools with which they could be mitigated.

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3. A Comparative study of the risk perception of the persons who are equity shares investors and those who have not invested into equity.
4. A Comparison between the investment behaviour of the employees, professionals, and businessmen.

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