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STUDY OF BEHAVIOURAL DIMENSIONS OF PERCEIVED RISK OF INVESTMENT OF FINANCIAL EXPERTS AND LAYMEN IN EQUITY MUTUAL FUNDS IN INDIA

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Abstract ***Purpose****: This paper aims to study the behavioural aspects of financial decision making variables like faith, knowledge, availability of information, uncertainty, predictability of future outcome, complexity of product, and transparency that define risk perception of individual investor in equity mutual fund. The objective is to identify the difference, if any, between factors defining risk of investment in equity mutual fund for a financial expert against a lay investor.*

Research design*: Convenience sampling was used to get response to questionnaire for variables relating to behavioural aspects of investment decision making. Research tool ANOVA was applied to responses from experts and laymen to establish if there is a difference between their perceptions of risk of investment in equity mutual fund. Further factor analysis was applied to identify the factors defining risks and finally discriminant analysis was done to find the impact of each of the factors in describing the riskiness of the product – equity mutual fund.*

Findings*: Results of ANOVA establish that there is significant difference in risk perceptions of experts and laymen in making investment decision. Factor analysis resulted in six components – risk of potential adverse returns, extent of control on the outcome, self-regulation, voluntary risk taking, financial consciousness, and transparent dealings –describing riskiness of investment. Discriminant analysis shows that there are distinct differences in the weights assigned to each of the factors by experts and laymen.*

Research ***limitations/ implications****: The limitation of our research is that the responses are collected only from four metropolitan cities of India, namely Mumbai, Delhi, Chennai and Kolkata. Future studies could cover a larger base. Since the questionnaires were mailed, the responses depend on the interpretation/ understanding of each of the question by individual respondents. Future researchers could address the shortcoming by conducting personal interviews for data collection.*

Practical implications*: The study is important from fund manager's point of view as identification behavioural dimensions of risk perceptions for laymen can help them manage better the risk perception of investors, contributing to encouraging investment environment.*

Social implications*: Understanding the fears of small/ lay investors and educating them to make informed investment decision will aid them earn better returns on investment.*

Originality/ value*: A large base of small investors stays away from investment in equity, particularly in India. The study will help fund managers understand the various reasons behind it so that appropriate steps could be taken to manage their risk perception and empower small investors to take calculated risks.*

Keyword: *Attitude, Perceived Risk, Investors, Equity Mutual Fund, Factor Analysis*

INTRODUCTION

The sixth schedule of SEBI (Mutual Fund) Regulations, 1996 mandates the insertion of the statutory warning, "Investments in Mutual Funds are subject to market risk. Please read the offer document carefully before investing", by any Asset Management Company in India when advertising for its mutual fund products. The statutory warning is primarily targeted at investors who are not financial experts in order to draw their attention to the market risk associated with investment in capital market. However, several cases (Times of India, Aug 28, 2012) illustrate that the mandatory disclosure of risk clause does not really help investors.

It is apparent that very few investors, whether a financial expert or a lay investor, have the understanding and time to assess risk by carefully scrutinising the offer document. Individuals possibly adopt one the following approaches while taking a decision on investing in equity mutual funds (EMF) in products:

i. Seek advices from financial advisors/ friends/ someone whom he thinks is capable of offering sound advises before zeroing on any product.

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ii. Entrust its investment management with institutions offering financial planning services for a fee.

In both the cases only the investor is responsible for the consequences of investments as financial planners are acting in sole capacity as advisors. Financial planners do not and cannot guarantee specific returns on investments. Any advisor at best can spell out probable outcomes given the economic scenario. In view of the above the logical question is "what are the factors that influence investment decision in equity mutual funds", the paper endeavours to review the same.

Conventional theories like Markowitz Portfolio Theory (Harry Markowitz, 1952) or Capital Asset Pricing Model (Treynor, Jack L., 1962) propagate risk – return tradeoffs that are quantifiably measured in terms of volatility. Some of the fundamental assumptions behind these theories are:

i. Information is freely available to all investors.
ii. Investors are knowledgeable and take informed decision on investment.
iii. Investment decisions are purely based on risk –return trade off that are quantifiable.

In practical world none of the above assumptions are applicable. Even if the information is freely available, is it really deciphered and understood equally by all investors? A non-finance lay investor does not possess requisite knowledge and turn to financial experts seeking advice on investment. An element of trust plays a vital role for lay investors given the level of uncertainty and expectations from investment in EMF, and his perception of risk associated with it. Financial experts on the other hand largely assess risk on quantitative facts and probability of outcomes. Although the common goal of financial experts and lay investor is the same, "maximise returns with minimum risk", financial planners also carry their profit targets through commissions earned; this could create conflict of interests at times.

Literature reviews in the area show that there are many qualitative factors besides pure financial analysis that drive the individual decision making for investment in financial products. Each individual has different perception of risk and estimates returns on perceived risks. Attributes other than just risk and return, figure prominently in decision making process of lay investor as well as financial experts, which was found in studies of Capon et al. (1996) and MacGregor et al. (1999). Later studies from UK (Diacon and Ennew, 2001) identified five behavioural dimensions of the risk perceptions:

- distrust of the product and/ or provider
- concern about the seriousness of adverse consequences
- concern about the volatility of return
- poor knowledge and/ or observability
- and failure of regulation

Scope of the Study

In India not many researches explore attitudinal facets of decision making process. This paper aims to study the behavioural aspects of financial decision making variables like faith, knowledge, availability of information, uncertainty, predictability of future outcome, complexity of product, and transparency that define risk perception of individual investor in EMF. It endeavours to compare the factors influencing the risk perception of financial experts vis-a-vis a lay investor. Finally a model is prepared using discriminant analysis to define perceived risk of investment in EMF as function of factors derived above, considered independent variables. Survey approach is used to do the study in India, with the limitation of survey being conducted only in metro cities of India.

Significance of Research

We have chosen to study the risk perception of investment in Equity Mutual Fund because it offers small investors an avenue to invest in a diversified portfolio of equity shares. India is part of developing countries where mutual fund industry is still at nascent stage. Unit Trust of India was the first mutual fund launched by Government of India in 1963 with its Unit-64 scheme (AMFI, India. History of Indian Mutual Fund Industry). It enjoyed monopoly till 1987 before the market was opened to other public sector companies. Since 1993 private and foreign players have been allowed to operate resulting into number of Asset Management Companies (AMCs) offering hundreds of Schemes in EMF. Although the number of AMCs has grown substantially in the last two decades, the assets under management are only INR 7.5 Trillion as of 30th September 2012, (AMFI, India. Report on Asset under Management – September 2012). Penetration of mutual funds (Asset Under Management as a percent of GDP) in India remains very low at 4.7% as compared to 77% in USA, 41% in Europe and 33.6% in UK. (KPMG, India. Kbuzz - Issue 21). The report goes on to state that mutual funds comprised only 1.1% of financial savings by Indian household in 2012. Research from Boston Analytics analyse the reason behind such a low level of investment as perceived high risk and a lack of information on how mutual funds work. Financial planners / advisors are the link between AMCs and lay investors who interpret information to help investors take their decision. Different mutual fund houses offer different commissions to financial advisors for selling their products. Thus there are chances of distortion in interpretation owing to profit motive – conflict of interest. Secondly, there could be inherent individual bias of financial experts based on his risk perception of various product / AMC offerings.

The fundamental question therefore needs to be addressed as to what the factors are influencing the investment decision. Studies (Singh and Bhowal, 2009) have shown that risk perceptions can be managed if one is aware of factors contributing to perceived risk. A study on factors influencing decision of investment in EMF and how the risk perception of a laymen is different from that of an expert will surely likely to help fund managers manage the investment environment better.

Objectives

The study aims to:

i. Identify the behavioural dimensions of risks associated with investment in equity mutual fund.
ii. Evaluate components that differentiate risks perception of financial experts from lay lnvestors.
iii. Analyse whether factors governing the risk perception of experts and laymen are distinctly different.
iv. Prepare a model defining perceived risk of investment in EMF as a function of factors derived above using discriminant analysis.

LITERATURE REVIEW

Risk Perception

Conventional economics assumes rational behaviour by individuals making decisions in an ideal environment, a theory challenged by behavioural economics (Altman, 2008, 2012). Grable (2000) proposes a negative correlation between financial literacy and propensity to take risk. A lay investor tries to compensate the lack of financial understanding by opting for high risk – high return products. The idea that individual's financial attitude and the way an investment option is presented has a major impact on decision making, is reinforced by Shefrin (2000) and Shleifer (2000). Herding, influence of peer group on decision making, is another behavioural aspect featuring into decision making. Venezia et al. (2011) found that herding tendency is more prominent in lay investors as against professionals.

All these studies underscore the difference in risk perception of an expert vis-a-vis a lay investor, which is a result a combination of quantitative and qualitative features of investment object and prevalent environment. Numerous studies in the area (McDaniels, Axelrod, Cavanagh, and Slovic, 1997; Slovic, 1986) have found that experts primarily rely on quantitative facts whereas lay investor's judgment weighs more on qualitative factors such as familiarity and controllability of risk. Similar outcomes were cited from the studies of MacGregor, Slovic, Berry, and Evensky (1999) and Koonce, McAnally, and Mercer (2005). Their research states that risk perception of experts can be defined in terms volatility, probability and magnitude of loss, while lay investors perceive risk in terms of "knowledge and worry".

Recent researches using psychometric and experimental methods have come to similar conclusions. Psychometric approach by Olsen (1997), Diacon (2004) and Vlaev, Chater, and Stewart (2009) revealed that experts perceive investment risk as potential capital loss, returns below expectation and economic uncertainty. A lay investor associates risks with knowledge deficit and lack of control. Simulation experiments performed by Duxbury and Summers, (2004); Klos, Weber, and Weber, (2005); Nosic and Weber, (2010); Veld and Veld-Merkoulova, (2008) reinforce the fact that "fear of loss" outweighs the quantitative variables in making financial investment decision. Katharina Sachse, Helmut Jungermann, and Julia M. Belting (2011) conclude that experts and lay investor derive comfort from almost similar factors when making investment decisions. It is therefore expected that advisors share information in an unbiased manner with their clients in order to win trusts of their clients and build a long term relationship.

Trust

Financial products innately are somewhat complex to understand and the future of investment in these products is highly uncertain. Under the scenario an element of trust plays a critical role while making a decision. Individual opting to take risk of uncertainty tend to put their faith either in the advisor or the organization offering the product. Studies define trust as a phenomenon that motivates investors to take risk voluntarily (Johnson-George and Swap, 1982; Kee and Knox, 1970; Mayer et al., 1995; Williamson, 1993). Trust becomes more prominent if the benefits perceived are high and the investor does not have the requisite expertise to evaluate the risk (Koller, 1988). The paper talks about laymen giving more weightage to trust as they are not able to evaluate properly.

Cognitive trust as defined by Moorman et al. (1992); Rempel et al. (1985) is client's willingness to believe in competence of service provider. It is effectively a result of past experience and accumulated knowledge about the person and the individual's reputation among others that he/she would live up to their expectation.

Another set of studies propose affective trust developed owing to care and concern shown by the individual, primarily based on emotions rather than on knowledge about the person (Johnson-George and Swap, 1982; Rempel et al., 1985).

Carney (1998) and Husted (1994) advocate that trust creates a conducive environment for investment in specific assets. On the other hand Williamson (1993) argues that

trust is calculative based on relationship and risk involved. According to him whenever any person is taking risk of investment on premises of expected gains in future, trust is implicit in the transaction. His contention is further supported by Dyer and Chu (2003, 2000), Klein (1980) who suggest that it is on account of calculative trust that companies may act trustworthy to build credibility with trading partners.

Bohnet et al. (2008); James (2002) describe trust in an economic transaction as a belief that counterparty will not take advantage of the risk of uncertainty. The process of building up of trust between two parties is scarcely laid out. Some research call it the process of judgement of person in whom one places his/her faith and not a function of probabilities (Bohner and Zeckhauser, 2004; Eckel and Wilson, 2004). Moreover there is hardly any correlation between one's risk aversion based on probabilities of outcome and placement of trust (Ashraf and Bohnet, 2006; Eckel and Wilson, 2004). Some identify trust as creation of long term relationship between like-minded people (Hong and Bohnet, 2007). Trust is also defined as act of an investor mandating advisors / planners to manage their investment without any legal commitment of returns on investment (Fehr, 2009).

Information Flow, Complexity and Control

Human beings have inherent desire to control the future, therefore all kinds of decision, financial or non-financial, hinge around the same. In an environment of uncertainty information plays a key role in decision making. J¨urgen Huber, Michael Kirchler and Matthias Sutter (2004) studied the value of information in financial market and found that abundance of information does not necessarily lead to outperformance, unless the trader is privy to some inside information.

The information sought by investors in mutual fund would be of risk –return trade off, cost of investment, past performance of the fund, credibility and performance of fund managers etc. - Grinblatt and Keloharju's (2001) findings support the same. Studies on mutual funds in past (Ippolito, 1992; Chevalier and Ellison, 1997; Sirri and Tufano, 1998) have established a strong correlation between fund performance and net fund flows.

Investors seek information from various sources – one such source being media advertisement and analysis. Study by Jain and Wu (2000) found a strong influence of advertisement on investment decisions.

Complexity of financial products warrants knowledge and understanding of its structure, inherent risk and probable returns, not available with lay investor. Thus a lay investor turns to financial experts / advisors before investing. A number of studies (Capon, Fitzsimons, and Prince, 1996; Alexander, Jones, and Nigro, 1998) reflect that many investors are not completely aware of the rationale behind their investment decisions. Barber, Odean, and Zheng's (2005) findings revealed that mutual fund investors are greatly influenced by visible information like the front-end load and would opt for a fund with lower or zero upfront cost, even though that fund could have much higher operating expenses – invisible to investors. This is one of the reasons that fund managers design complex pricing structure making it opaque for the investor.

Research indicates that investors tend to find an easy way out when faced with a complex decision (Payne, Bettman, and Johnson, 1988; Payne, Bettman, and Luce, 1996). An experiment by Iyengar and Lepper (2000) finds that too many choices – information overload – actually hinders consumer's decision making.

Agnew and Szykman (2005) argue that access to information does not help investor lacking financial literacy and propagate the idea of basic education to lay investors before recommending any investment plan. Another study (Bergstresser, Chalmers, and Tufano, 2009) finds that financial intermediaries / brokers do not add any perceptible value to investors. In contrast Lusardi and Mitchell (2007) suggest that relevance and quality of information coupled with truthfulness play a key role in educating the investors.

Mutual funds industry is largely commoditised with a number of players fighting for their space. Bruce I. Carlin (2009) suggests in his model that firms use complex pricing structure to retain market share and profitability. The findings are supported by US Federal Reserve Chairman Ben Bernanke stated in his speech given in April 2009, ''We should be wary of complexity whose principal effect is to make the product or service more difficult to understand by its intended audience.''(Speech by FED Chairman Ben Bernanke, Apr 17, 2009)

Complexity can also be created by not disclosing certain information – an area where the role and intentions of financial advisors come into play. Eva Jonas and Dieter Frey experiments demonstrate that advisors offer information that would support their recommendations instead of a balanced approach. Kray's (2000) findings on the other hand suggest advisors present information on ''what most people would prefer'' although there could possibility of error in inferring the investor's requirements.

Balanced or biased information sharing between advisors and client plays a key role in risk assessment and decision making. Studies (Harve y, Harries, and Fischer, 2000; Jungermann, 1999) have found that it is not just product information but the personality of the advisor also weighs on decision making. Level of confidence (Sniezek and

Buckley, 1995; Sniezek and van Swol, 2001), expertise (de Vries and Wilke, 1995; Harvey and Fischer, 1997), credibility (Sniezek and van Swol, 2001) and proven past record (Yaniv and Kleinberger, 2000) of an advisor create a positive influence on investors. However advisor may not necessarily act in the interest of client as they have their own targets to achieve. Research (cf. Schlenker, 1980; Tedeschi, 1981) has shown that people manipulate information to suit their agenda. Unfavourable outcomes are generally blamed on external factors (Staw, McKechnie, and Puffer, 1983). The phenomenon is termed "misselling" by Inderst and Ottaviani (2009). Their model highlights the agency effect where selling agents manoeuvre information to push financial products offering higher incentives, not necessarily meeting client's requirements.

RESEARCH METHODOLOGY

Factor analysis is used as tool for measuring risk perception on investment in equity mutual fund. Research uses convenience sampling by administering questionnaire comprising 22 questions to financial expert and laymen. The questions were taken from the reference paper, Stephen Diacon (2004) and sought to measure the risk perception, the product complexity and regulatory aspects of individual investors and advisors. The survey was done primarily in metro cities of India – Mumbai, Delhi, Kolkata and Bangalore.

A total of 167 responses were collected of which 79 were from expert category and balance 88 belonged to laymen category. The data was segregated into Experts and Laymen category before applying the factor analysis.

RESULTS

ANOVA Results

The column "F" lists the F-statistic for a one-way ANOVA to test the null hypothesis that the means of expert and laymen are equal for the corresponding questions posed to respondents. The table (Annexure 1) reveals that the mean responses of laymen and experts differ significantly for all the questions at the 5 percent level of significance providing reasonable evidence that expert's risk perceptions differ from that of lay investors.

Once it is found from table (Annexure 1) that the perceptions of experts and laymen differ significantly in all the initial variables, the next objective was to extract the underlying dimensions of investment behaviour for both the experts and the laymen. Principal Component Analysis was applied to both the experts and the laymen separately in the following section.

Experts

At first, the Principal Component Analysis was applied to the data explaining the investment behaviour of the experts. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is .712 and Bartlett's Test of Sphericity is significant ($p < .01$). As evident from Table 1, nine factors could be extracted from original twenty two variables, with Eigen values greater than one.

The component matrix (Annexure 2) is analyzed to identify the loading of the variables on each of the extracted nine factors.The table (Annexure 2) reveals that the variables – uncertain returns, serious consequences, risk of potential loss, risk of unethical behaviour of companies offering product and difference of risk perception for different product providers were grouped under first factor. The second factor comprised knowledge of risk, losses from investment and charges being observable, assessment of the fund before investment coupled with regular monitoring. The third factor was made of controlling risk, risk of losing entire investment and facing pressure of sales. The fourth factor had two variables easy to understand and fear of getting ruined. The fifth factor held variables like risk known to experts, immediate knowledge of any losses, risk of biased advice and government protection. Factor six did not have significant load of any variable. The seventh, eighth and ninth factors had only one variable returns below expectation, voluntary risk taking and self regulation by companies respectively.

A deeper study of factors shows that seventh factor can effectively be clubbed with first factor as it also talks about uncertain future returns. Similarly voluntary risk taking under factor 8 is comparable to the variables grouped under factor 3 that relates to desire of controlling the risk. The only variable under factor 9 – self regulation has features comparable to the variables grouped under factor 5, which also imply that fund managers act in the interest of investor. Moreover it can be seen from Table 3 that the level of significance of variables under the component 8 (0.539) and 9 (0.471) are similar to the significance of that variable under components 3 (0.523) and 5 (0.464) respectively confirming our belief that these can be clubbed together. We therefore decided to extract only five factors and the loadings are revealed in Table 2.

At this point we tried to provide a suitable phrase which captures the essence of the original variables that comprise the underlying concept or factor.

i. Factor 1: Risk of Potential Adverse Returns

It comprised variables related to uncertain returns, seriousness of consequences, risk of loss or returns below expectation, difference of risk perception for different product providers and risk of unethical behaviour companies offering equity

Table 1: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.658	12.081	12.081	2.658	12.081	12.081
2	2.234	10.156	22.237	2.234	10.156	22.237
3	1.927	8.757	30.994	1.927	8.757	30.994
4	1.575	7.157	38.151	1.575	7.157	38.151
5	1.382	6.282	44.434	1.382	6.282	44.434
6	1.327	6.033	50.467	1.327	6.033	50.467
7	1.210	5.500	55.967	1.210	5.500	55.967
8	1.193	5.424	61.391	1.193	5.424	61.391
9	1.109	5.040	66.431	1.109	5.040	66.431
10	.979	4.449	70.879			
11	.878	3.991	74.870			
12	.774	3.517	78.388			
13	.754	3.426	81.813			
14	.695	3.158	84.971			
15	.646	2.938	87.910			
16	.558	2.537	90.446			
17	.479	2.179	92.625			
18	.424	1.927	94.553			
19	.339	1.541	96.094			
20	.320	1.453	97.547			
21	.302	1.371	98.918			
22	.238	1.082	100.000			

*Extraction Method: Principal Component Analysis.

mutual fund. All these variables try to measure the impact on the investment decision of high level of uncertainty and risk associated with product and returns. The investor primarily looks to avoid any adverse future outcome – therefore the name "risk of potential adverse returns".

ii. Factor 2: Financial Consciousness

Variables contributing significantly to this factor are knowledge of risk, losses from investment and charges being observable, assessment of the fund before investment coupled with regular monitoring. These variables essentially appraise the financial awareness of investor – whether investor is knowledgeable and is taking an informed decision, thus the name "financial consciousness".

iii. Factor 3: Extent of Control over Outcome

It is made of variables like taking risk voluntarily, controlling risk with risk of losing entire investment embedded in it and facing pressure of sales. All these variables effectively test the desire to control a future outcome – how much of sales pressure does the investor withstand to own the responsibility of the outcome. The name extent of control over outcome captures its essence.

iv. Factor 4: Self Regulation by Product provider (Fund Managers)

Product made easy to understand, self regulation in the interest of investor and fear of getting ruined because of the investment are the variables forming this factor. These variables evaluate to what extent the fund managers designing and offering the products act in investor's interest by reducing the complexity of the product and formulate their own guidelines for the benefit of investors / laymen. Self regulation by product providers is therefore an apt description of the factor.

v. Factor 5: Transparent Dealings

Variables considered under this factor are experts having knowledge of investment risks, immediate knowledge of any losses incurred, possibility of a biased advice on investment from advisor and extent of protection provided by Government against any adverse consequences. Variables under this factor endeavour to measure the perception on level of openness in a transaction in terms of offering advice and ensuring that the losses are instantly visible. It also talks about putting faith in expert's knowledge, advices being

Table 2: Component Matrix-Experts

	Component				
	1	**2**	**3**	**4**	**5**
How much uncertainty is there in terms of the expected return for this product?	.558	.362	.378	-.064	-.178
How serious could the consequences of owning this product be, should it prove unsatisfactory?	-.463	.092	-.407	.311	-.005
Do people using this investment product face the risks voluntarily?	.069	-.008	.523	.266	.299
To what extent are any losses from this product known immediately?	.375	.041	-.298	.224	.435
Would a typical investor know about the risks involved in this investment?	.363	.589	-.113	.238	-.130
Are the risks from this investment product known to financial experts?	-.175	.338	.156	.231	-.499
Could a typical investor control the risks involved in this investment?	-.311	.424	-.455	.112	-.077
How great is the risk of losing all the money you put into this investment product?	.011	-.301	.473	.113	.010
To what extent can any losses from this product be observed by individual investors?	.084	.436	.039	-.299	-.063
Do you think this investment product is easy to understand?	.279	.123	.225	-.581	-.212
Do you experience sales / purchase pressure while dealing with the product?	.262	.349	.399	.155	.353
Is there a risk of receiving / providing biased advice from those who recommend the product?	.141	-.197	-.318	.143	.346
How easy is it to observe the charges levied by the investment provider?	-.340	-.398	.010	.174	-.104
To what extent will the government protect investors if something goes wrong with the investment?	.016	-.022	.149	-.248	.525
To what extent is the investment provider regulated to protect individual's investments?	.114	.145	-.265	-.407	.138
Is there a risk of losing money because the value of the investment may not rise in line with inflation?	.617	-.013	-.148	.469	-.110
Is there a risk that the company providing this product may behave unethically?	.574	-.286	.046	.308	-.164
To what extent do you think there are differences in the risks of this product between different brands?	.612	-.103	-.386	-.016	-.050
Do you spend a lot of time monitoring this investment?	-.461	.595	.173	.157	.350
To what extent do you assess information on the product prior to purchase?	.140	.562	-.259	-.064	.062
How great is the risk that you will be ruined as a result of this investment?	-.174	.234	.324	.381	-.053
How great is the risk that the return from this investment might fall below expectations?	-.283	.028	.083	.026	-.176
*Extraction Method: Principal Component Analysis.					
*a. 5 components extracted.					

unbiased and level of protection offered by Government against any malpractices. The nomenclature "transparent dealing" covers all the aspects of these variables.

Discriminant analysis was further applied to the investment risk perception of the experts with the categorical dependent variable of their perception of investment in equity mutual fund as risky or not. Discriminant analysis was useful in identifying the importance of the factors and then developing a model for purely academic purpose. The Standardized Canonical Discriminant Function Coefficients reveals the importance of the factors extracted for the experts in their perception of equity mutual fund as a risky product or not. It is observed that 'Extent of Control over Outcome' with a coefficient of .764 is the best predictor, followed by 'Financial Consciousness' with a coefficient of .58, followed by 'Risk of Potential Adverse Returns with a coefficient of .449, followed by 'Transparent Dealings' with a coefficient of .262. Self Regulation by Product provider (Fund Managers) is the last one with a coefficient of .062. In order to compute the discriminant score of any expert the unstandardized discriminant function has to be used,

Y = .000 + .454 Risk of Potential Adverse Returns + .596 Financial Consciousness + .808 Extent of Control over Outcome + .062 Self Regulation by Product provider (Fund Managers) -.261 Transparent Dealings

where the value of Y determines whether the mutual fund is perceived as risky or not. The Functions at Group Centroids reveal that observed that the mean for risky is 1.618 and the mean for Not Risky is -.182. This means that the midpoint of the two is .718. This gives a decision rule for classifying a new expert. If the discriminant score of a new expert falls less than .718, his perception could be considered not risky where as any value above .718 could be considered as risky. We further observed that the development of the decision model is purely for the academic purpose with the objective of contributing to the existing literature.

Laymen

Next, the Principal Component Analysis was applied to the data explaining the investment behaviour of the laymen. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is

Table 3: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.690	25.865	25.865	5.690	25.865	25.865
2	1.986	9.028	34.893	1.986	9.028	34.893
3	1.565	7.114	42.008	1.565	7.114	42.008
4	1.506	6.843	48.851	1.506	6.843	48.851
5	1.408	6.398	55.249	1.408	6.398	55.249
6	1.259	5.723	60.972	1.259	5.723	60.972
7	1.078	4.899	65.871	1.078	4.899	65.871
8	.966	4.389	70.260			
9	.927	4.214	74.473			
10	.831	3.778	78.251			
11	.732	3.327	81.578			
12	.717	3.257	84.835			
13	.615	2.798	87.633			
14	.532	2.417	90.050			
15	.464	2.111	92.160			
16	.395	1.793	93.954			
17	.343	1.559	95.513			
18	.324	1.473	96.986			
19	.259	1.178	98.164			
20	.179	.815	98.979			
21	.154	.698	99.677			
22	.071	.323	100.000			

*Extraction Method: Principal Component Analysis.

.686 and Bartlett's Test of Sphericity is significant ($p < .01$). As evident from Table 3, seven factors were extracted from original twenty two variables, with eigen values greater than one.

The component matrix (Annexure 3) is analyzed to identify the loading of the variables on each of the extracted seven factors.The output in table was strikingly different from analysis of expert data as each variable contributed significantly to any one component and faded out in the rest, though the grouping was on similar lines to that of experts.

However, the table (Annexure 3) also reveals that "risk of being ruined as result of investment" was forming a single factor, though it could effectively be clubbed under factor1 which grouped variables related to uncertainty of returns. Also the 6thcomponent had only one variable "extent of self regulation by the investment provider". We decided to extract 5 factors to avoid having more than one factor with similar implication and to keep the consistency with expert analysis. The results yielded 4 factors having similar grouping as in expert's outcome with 5th factor different from experts. The details are revealed in Table 4.

At this point we provide a suitable phrase to each of the five factors which captures the essence of the original variables that comprise the underlying concept or factor.

i. Factor 1: Risk of Potential Adverse Returns

This factor comprised variables related to uncertain returns, seriousness of consequences, immediate knowledge of any losses incurred, extent of control over outcome, risk of losing all investment or the rate growth of investment is lower than rate of growth of inflation, possibility of a biased advice on investment from advisor and extent of protection provided by Government against any adverse consequences. The rationale for nomenclature is described under expert's factor 1 as they are comparable. The distinct difference between expert and laymen analysis is that almost all the variables that indicated towards "risk of potential adverse returns" are grouped under this factor under laymen. It is apparent that the responses from laymen are more emphatic and categorical compared to expert's responses.

ii. **Factor 2: Self Regulation by Product provider (Fund Managers)**

Table 4: Rotated Component Matrix –- Laymen

	Component				
	1	**2**	**3**	**4**	**5**
How much uncertainty is there in terms of the expected return for this product?	.633	-.251	.008	-.216	.093
How serious could the consequences of owning this product be, should it prove unsatisfactory?	.509	.247	-.016	-.122	-.009
Do people using this investment product face the risks voluntarily?	.128	.099	-.046	.651	-.078
To what extent are any losses from this product known immediately?	.508	.048	.268	.403	-.119
Would a typical investor know about the risks involved in this investment?	.435	.131	.507	.427	-.113
Are the risks from this investment product known to financial experts?	-.364	-.021	-.026	.619	.237
Could a typical investor control the risks involved in this investment?	.816	-.058	.181	.261	.176
How great is the risk of losing all the money you put into this investment product?	.674	.060	.087	.262	.313
To what extent can any losses from this product be observed by individual investors?	-.080	-.148	.043	.128	.678
Do you think this investment product is easy to understand?	.005	-.022	.743	.079	.038
Do you experience sales / purchase pressure while dealing with the product?	.395	.060	.593	-.162	.361
Is there a risk of receiving / providing biased advice from those who recommend the product?	.720	.148	.353	-.097	-.004
How easy is it to observe the charges levied by the investment provider?	.177	.439	.605	-.170	-.073
To what extent will the government protect investors if something goes wrong with the investment?	.788	.345	.098	-.019	-.156
To what extent is the investment provider regulated to protect individual's investments?	.264	.439	.069	.012	-.100
Is there a risk of losing money because the value of the investment may not rise in line with inflation?	.833	.240	.003	.016	-.130
Is there a risk that the company providing this product may behave unethically?	.121	.628	.150	.292	-.084
To what extent do you think there are differences in the risks of this product between different brands?	-.115	.666	.380	.024	.111
Do you spend a lot of time monitoring this investment?	.065	.691	-.266	-.019	.138
To what extent do you assess information on the product prior to purchase?	.257	.456	.104	-.071	.519
How great is the risk that you will be ruined as a result of this investment?	.128	.006	.302	-.003	-.396
How great is the risk that the return from this investment might fall below expectations?	.176	.172	.128	-.210	.400
*Extraction Method: Principal Component Analysis. *Rotation Method: Varimax with Kaiser Normalization.					
*a. Rotation converged in 7 iterations.					

Self regulation in the interest of investor, risk of unethical behaviour companies offering equity mutual fund, difference of risk perception for different product providers and regular monitoring of investment are the variables forming this factor.

The variable "regular monitoring of investment" figured under the financial consciousness under expert analysis – clearly showing that financial experts expect investor to regularly monitor their investment whereas laymen perceive it important from the point of experts or product providers.

iii. Factor 3: Financial Consciousness

Variables contributing significantly to this factor are product easy to understand, knowledge of risk, charges observable, and fear of being ruined.

In this case again the variable "product easy to understand" was clubbed under the factor "self regulation". This is because experts interpreted it designing the product that is easily understood by investors whereas lay investors read it as part of financial awareness. Similarly variables like knowledge of risk, assessment of fund prior to investment of regular monitoring grouped under "financial consciousness" under expert as unlike laymen, they believe it to be the responsibility of investors.

iv. Factor 4: Voluntarily Assume Risk

The two variables under this factor are taking risk voluntarily and financial expert knows the best. The response is so different from those of experts where the variable "voluntarily assumes risk" contributes to the factor "extent of control over outcome". This reflects the stark difference in perception of experts and laymen – a lay investor though seeks advice, it always comes with a caveat that, "the advisor is not responsible for the outcome". Therefore for the laymen it becomes a strong deterrent / factor on account of their poor knowledge of the product and the investment decision is primarily based on the thought that "expert knows the best".

v. Factor 5: Transparent Dealings

Variables considered under this factor are assessment of the fund before investment, losses from investment are

observable, sales pressure, and returns below expectation. Factor effectively assesses the transparency in transactions on the same lines as defined under expert outcome.

Discriminant analysis was further applied to the investment risk perception of the laymen with the categorical dependent variable of their perception of investment in equity mutual fund as risky or not. Discriminant analysis was useful in identifying the importance of the factors and then developing a model for purely academic purpose. The Standardized Canonical Discriminant Function Coefficients reveal the importance of the factors extracted for the laymen in their perception of equity mutual fund as a risky product or not. It is observed that 'Risk of Potential Adverse Returns' with a coefficient of 0.963 is the best predictor, followed by 'Voluntarily Assume Risk' with a coefficient of -0.467, followed by 'Self Regulation by Product provider (Fund Managers)' with a coefficient of -0.442, followed by 'Transparent Dealings' with a coefficient of 0.045. Financial Consciousness is the last one with a coefficient of .034

In order to create a model on the risk perception of any layman, the unstandardized discriminant function was used,

Y = .000 + 1.2Risk of Potential Adverse Returns – 0.451 Self Regulation by Product provider (Fund Managers) + 0.034 Financial Consciousness –0.479 Voluntarily Assume Risk + 0.045 Transparent Dealings

where the value of Y determines whether the mutual fund is perceived as risky or not. The Functions at Group Centroids reveal that that the mean for risky is .372 and the mean for Not Risky is -2.359. This means that the midpoint of the two is -.994. This gives a decision rule for classifying a new layman. If the discriminant score of a new layman falls more than -.994, his perception could be considered risky where as any value less than -.994 could be considered as not risky. We further observed that the development of the decision model is purely for the academic purpose with the objective of contributing to the existing literature.

DISCUSSION

The paper aims to identify the various qualitative factors defining the risk perception of investment in Equity Mutual Fund (EMF) and how the risk perception differs between financial experts / advisors and laymen. The results of ANOVA performed on the responses collected from experts and laymen reveal significant differences between the means of their responses across all questions. It can therefore be reasonably inferred that there is significant difference between experts and laymen perceptions towards risk of investment in EMF.

After establishing the fact that risk perceptions differ substantially, we proceeded to study the underlying dimensions of investment behaviour for experts and laymen, using Principal Component Analysis. The first of the five factors extracted for experts, "Risk of Potential Adverse Returns" grouped six variables relating to uncertainty of returns, seriousness of consequences, risk of loss or returns below expectation, difference of risk perception for different product providers, and risk of unethical behaviour companies offering equity mutual fund. It has only three variables uncertainty of returns, seriousness of consequences and risk of loss in common with the eight variables grouped under the same factor for laymen. In case of laymen the factor also clubs variables like extent of control over the outcome, risk of receiving biased advice and level of protection offered by the Government. It confirms our belief that laymen who do not really understand the product and seek investment advisory is apprehensive about risk of getting biased advice and therefore it looks up to the Government for protection. In contrast the variable measuring the perception of unethical behaviour of the companies offering the product or different risk perception for different products is clubbed under this category for experts, not appearing in laymen, as experts perceive them to be major risk in their role as investment advisory. Thus we find that variables defining mutual trust between laymen and experts (risk of biased advice for laymen and perception of unethical behaviour by product provider for experts) play a defining role in measurement of risk of potential adverse outcome. The finding is also supported by many researchers who have identified trust as one of key variable for measuring risk perception (section "Trust" discussed earlier).

The second factor "Financial Consciousness" consists of variables like knowledge of risk, losses from investment and charges being observable, assessment of the fund before investment coupled with regular monitoring for experts. It is evident that this factor for experts defines the ways in which expert appraises the financial awareness of investor to offer appropriately guidance. Also from expert's point of view the responsibility of risk assessment of product prior to purchase and regular monitoring of investment is the responsibility of investor. These are very much in line with our observation whereby the fund managers / advisors delineate probable risks associated with the product to the investors, but do not take the onus of the outcome. On the other hand the variables contributing significantly under the factor for laymen are product easy to understand, knowledge of risk, and observability of charges levied by investment provider. This again is understandable as laymen in their responses were mainly concerned about the complexity of the product and hidden charges. Earlier researches have also found that complexity of the product design has a great influence on investment decisions (section "Information Flow, Complexity and Control" discussed earlier).

"Extent of Control over Outcome" the third component derived under experts comprises variables such as taking risk voluntarily, controlling risk and facing pressure of

sales. Experts need to judge the level of sales pressure the investor would withstand when convincing them to invest at their own risk given the extent of control on outcome. This feature unique to experts / advisors since they are driven by sales incentives at the same time they need to right advice according to risk profile / requirement of the investor. The corresponding factor identified for laymen is "Voluntary Risk Taking" having only two variables – take risk voluntarily and expert knows the best. Laymen responses are definitely categorical in defining that even though they largely bank on expert advices they themselves have to be responsible for the investment decision independent of the future outcome. The response could be well anticipated since they cannot hold the advisors responsible for any adverse / below par performance despite being guided by them for investment.

The fourth factor "Self Regulation by product Provider (Fund Managers)" under experts outlines the measures taken by the fund manager to design a product easily understood and formulate guidelines working in the best interest of the investors. Such a perception goes a long way in building the image of the product provider ensuring better management of risk perception. Laymen being on the other side of the table interpret self regulation as regular monitoring of their investments by fund managers in the best interest of the investors. Therefore they also associate risk of unethical behaviour by the mutual fund companies with self regulation. Laymen are logically correct in their expectations as they are entrusting their money in the hands of experts to invest on their behalf for a fee.

Lastly the factor "Transparent Dealing" having influence on decision making comes as no surprise. An unbiased advice clearly demarcating risk-return profile and openness in transactions in explaining the cost structure paves the way for a long term relationship between an expert and a layman. Studies have also highlighted the importance information sharing / transparent dealings, between experts and laymen in risk assessment and decision making (section "Information Flow, Complexity and Control" discussed earlier).

Once the principal components playing a key role in risk perception and decision making were extracted, we applied discriminant analysis to evaluate the importance of the factors. In case experts the component "Extent of Control over Outcome" carries the highest weight at 0.764 and "Self Regulation by product Provider" is considered least important with a coefficient 0.062 in evaluating risk perception. "Financial Consciousness" succeeds extent of control followed by "Risk of Potential Adverse Returns" and "Transparent Dealings". The order is quite logical from expert's point of view since the biggest risk they run is to tackle the investor's inherent desire to control the outcome in the face of uncertainty and ensure his willingness to take risk, given the sales target they run with. Second challenge for experts is the assessment of financial awareness of investor – his ability of understands, appraise and monitor investment that would form the basis of guidance for investment. Experts are expected to have a fairly good qualitative/ quantitative knowledge of aspects of "Risk of Potential Adverse Returns" therefore they perceive this to be a lesser risk compared to "Extent of Control over Outcome" and "Financial Consciousness". Next is "Transparent Dealings" important in building a long term relationship. Lastly the component of "Self Regulation by product Provider" considered being least of their problems as this one factor is taken for granted. Experts assume that fund managers work in the best interest of the investors as competition would beat them out if they fail to do so.

Opposite is the result of discriminant analysis of laymen where "Risk of Potential Adverse Returns" is of paramount concern – a layman's lack of or inadequate understanding of the market makes them anxious about their investment assigning maximum weight to this risk. Second in order is obviously "Voluntary Risk Taking" – assuming the onus of an adverse outcome even though he does not possess the requisite knowledge to appraise the product. This is followed by riskiness in terms of "Self Regulation by Product Provider" – indeed so as they are entrusting their savings with fund managers to invest on their behalf. Laymen run a large risk of mismanagement/ fraudulent acts of companies offering investment products. Next logical choice is the level of "Transparent Dealings" that gives him confidence to take investment decision. "Financial Consciousness" carries lowest weight but the value is similar to that assigned to transparent dealings. The importance of financial consciousness derived from the fact that laymen also determine risk based on the level of complexity of product design and pricing structure – implying level of their understanding. This order of assigning importance to the principal components is in line with our observations/ experience in the field wherein an investor primarily endeavours to avoid risk taking and therefore first evaluates the quality of fund managers before appraising investment options of any fund house.

CONCLUSION

The paper finds the following behavioural dimensions of risk perception;

- Extent of Control over Outcome
- Financial Consciousness
- Risk of Potential Adverse Returns
- Self Regulation by product Provider
- Transparent Dealings
- Voluntary Risk Taking

not necessarily in the order of importance assigned to them. Also the factor "Extent of Control over Outcome" is unique

to experts whereas the factor "Voluntary Risk Taking" is unique to laymen.

We find that there is distinct distinction in the way an expert perceives the risk vis-a-vis a layman. The order of importance for the factors in case of experts is Extent of Control over Outcome, Financial Consciousness, Risk of Potential Adverse Returns, Transparent Dealings and Self Regulation by product Provider. On the other hand the coefficients of each factor of laymen are: Risk of Potential Adverse Returns, Self Regulation by product Provider, Voluntary Risk Taking, Transparent Dealings and Financial Consciousness.

Also the interpretation of each of the factor is different for experts and laymen as discussed earlier. This is the reason that the factor Extent of Control over Outcome which is topmost risk identified by experts does not even figure on the laymen radar. Similarly the factor Voluntary Risk Taking figures only under laymen. We can therefore definitely conclude that there is significant difference in the perception and interpretation of risk factors identified for experts and laymen.

The limitation of our research is that the responses are collected only from four metropolitan cities of India – namely Mumbai, Delhi, Chennai and Kolkata. Future studies could cover a larger base. Since the questionnaires were mailed, the responses depend on the interpretation/ understanding of each of the question by individual respondents. Future researchers could address the shortcoming by conducting personal interviews for data collection.

The study draws its importance from fund manager's point of view as it can help them manage better the risk perception of investors, thereby creating a favourable investment environment. The identification of behavioural dimensions of investment decision is all the more important from Indian perspective as investment in equity mutual fund in India is still at growing stage. An understanding of the laymen perspective of risk will help it evolve better. Educating investors on risk – return from capital market where mutual funds primarily invest could allay some of the fear of investment for laymen. SEBI and AMFI in India have taken steps towards that but the effectiveness of investor education could be area of further study.

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ANNEXURE 1

ANNEXURE 2

ANOVA Results

		N	Mean	Std. Deviation	F	Sig.
How much uncertainty is there in terms of the expected return for this product?	Expert	79	1.66	.658	469.247	.000
	Layman	88	5.20	1.314		
	Total	167	3.53	2.065		
How serious could the consequences of owning this product be, should it prove unsatisfactory?	Expert	79	1.47	.502	511.351	.000
	Layman	88	5.34	1.445		
	Total	167	3.51	2.230		
Do people using this investment product face the risks voluntarily?	Expert	79	6.13	.774	68.692	.000
	Layman	88	4.69	1.351		
	Total	167	5.37	1.324		
To what extent are any losses from this product known immediately?	Expert	79	6.04	.808	29.609	.000
	Layman	88	5.03	1.450		
	Total	167	5.51	1.289		
Would a typical investor know about the risks involved in this investment?	Expert	79	6.01	.776	27.778	.000
	Layman	88	5.07	1.413		
	Total	167	5.51	1.246		
Are the risks from this investment product known to financial experts?	Expert	79	6.35	.769	61.261	.000
	Layman	88	5.06	1.281		
	Total	167	5.67	1.249		
Could a typical investor control the risks involved in this investment?	Expert	79	6.08	.781	41.527	.000
	Layman	88	4.69	1.757		
	Total	167	5.35	1.544		
How great is the risk of losing all the money you put into this investment product?	Expert	79	1.78	.857	222.540	.000
	Layman	88	4.85	1.637		
	Total	167	3.40	2.027		
To what extent can any losses from this product be observed by individual investors?	Expert	79	6.29	.865	70.110	.000
	Layman	88	4.70	1.471		
	Total	167	5.46	1.455		
Do you think this investment product is easy to understand?	Expert	79	6.00	.847	20.257	.000
	Layman	88	5.16	1.453		
	Total	167	5.56	1.273		
Do you experience sales / purchase pressure while dealing with the product?	Expert	79	1.67	.746	418.119	.000
	Layman	88	5.32	1.419		
	Total	167	3.59	2.157		
Is there a risk of receiving / providing biased advice from those who recommend the product?	Expert	79	1.96	.565	215.989	.000
	Layman	88	4.93	1.714		
	Total	167	3.53	1.975		
How easy is it to observe the charges levied by the investment provider?	Expert	79	6.08	.764	11.874	.001
	Layman	88	5.45	1.430		
	Total	167	5.75	1.201		
To what extent will the government protect investors if something goes wrong with the investment?	Expert	79	1.99	.840	136.980	.000
	Layman	88	4.73	1.922		
	Total	167	3.43	2.037		

To what extent is the investment provider regulated to protect individual's investments?	Expert	79	6.28	.733	24.582	.000
	Layman	88	5.45	1.303		
	Total	167	5.84	1.146		
Is there a risk of losing money because the value of the investment may not rise in line with inflation?	Expert	79	1.84	.608	220.830	.000
	Layman	88	4.86	1.717		
	Total	167	3.43	2.004		
Is there a risk that the company providing this product may behave unethically?	Expert	79	1.76	.625	419.129	.000
	Layman	88	5.34	1.437		
	Total	167	3.65	2.117		
To what extent do you think there are differences in the risks of this product between different brands?	Expert	79	1.51	.552	820.329	.000
	Layman	88	5.67	1.181		
	Total	167	3.70	2.285		
Do you spend a lot of time monitoring this investment?	Expert	79	5.96	.706	7.309	.008
	Layman	88	5.48	1.446		
	Total	167	5.71	1.179		
To what extent do you assess information on the product prior to purchase?	Expert	79	6.03	.733	24.084	.000
	Layman	88	5.22	1.291		
	Total	167	5.60	1.136		
How great is the risk that you will be ruined as a result of this investment?	Expert	79	1.81	.786	72.525	.000
	Layman	88	3.42	1.506		
	Total	167	2.66	1.459		
How great is the risk that the return from this investment might fall below expectations?	Expert	79	1.91	.835	399.440	.000
	Layman	88	5.24	1.250		
	Total	167	3.66	1.981		

Component Matrix - Experts

	Component								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
How much uncertainty is there in terms of the expected return for this product?	.558	.362	.378	-.064	-.178	.236	-.018	-.107	.036
How serious could the consequences of owning this product be, should it prove unsatisfactory?	-.463	.092	-.407	.311	-.005	-.073	-.023	-.336	-.120
Do people using this investment product face the risks voluntarily?	.069	-.008	.523	.266	.299	.114	-.079	.539	-.007
To what extent are any losses from this product known immediately?	.375	.041	-.298	.224	.435	.164	.029	.408	-.049
Would a typical investor know about the risks involved in this investment?	.363	.589	-.113	.238	-.130	.256	.033	.015	.151
Are the risks from this investment product known to financial experts?	-.175	.338	.156	.231	-.499	-.009	.479	.190	-.135
Could a typical investor control the risks involved in this investment?	-.311	.424	-.455	.112	-.077	-.353	.074	.218	.070
How great is the risk of losing all the money you put into this investment product?	.011	-.301	.473	.113	.010	.200	.397	-.188	-.155
To what extent can any losses from this product be observed by individual investors?	.084	.436	.039	-.299	-.063	-.313	.064	.418	-.144
Do you think this investment product is easy to understand?	.279	.123	.225	-.581	-.212	-.099	.068	.066	.277
Do you experience sales / purchase pressure while dealing with the product?	.262	.349	.399	.155	.353	-.051	-.087	-.340	-.069
Is there a risk of receiving / providing biased advice from those who recommend the product?	.141	-.197	-.318	.143	.346	.183	.277	.155	.054
How easy is it to observe the charges levied by the investment provider?	-.340	-.398	.010	.174	-.104	.300	.082	.247	.364
To what extent will the government protect investors if something goes wrong with the investment?	.016	-.022	.149	-.248	.525	-.450	.184	-.114	.301
To what extent is the investment provider regulated to protect individual's investments?	.114	.145	-.265	-.407	.138	.464	-.218	-.013	-.471
Is there a risk of losing money because the value of the investment may not rise in line with inflation?	.617	-.013	-.148	.469	-.110	-.024	.132	-.246	.185
Is there a risk that the company providing this product may behave unethically?	.574	-.286	.046	.308	-.164	-.392	-.240	.082	.070
To what extent do you think there are differences in the risks of this product between different brands?	.612	-.103	-.386	-.016	-.050	-.174	-.210	-.003	-.057
Do you spend a lot of time monitoring this investment?	-.461	.595	.173	.157	.350	-.012	-.058	-.129	.179
To what extent do you assess information on the product prior to purchase?	.140	.562	-.259	-.064	.062	.244	.137	-.060	.256
How great is the risk that you will be ruined as a result of this investment?	-.174	.234	.324	.381	-.053	-.196	-.352	.091	-.354
How great is the risk that the return from this investment might fall below expectations?	-.283	.028	.083	.026	-.176	.250	-.602	.055	.453
Extraction Method: Principal Component Analysis.									
a. 9 components extracted.									

ANNEXURE 3

Component Matrix - Laymen

	Component						
	1	**2**	**3**	**4**	**5**	**6**	**7**
How much uncertainty is there in terms of the expected return for this product?	.439	-.526	-.150	.165	.008	.421	-.061
How serious could the consequences of owning this product be, should it prove unsatisfactory?	.502	-.084	-.245	-.095	.087	-.051	.169
Do people using this investment product face the risks voluntarily?	.174	.089	.497	-.298	.292	-.334	-.115
To what extent are any losses from this product known immediately?	.576	-.084	.380	-.158	.002	.134	-.148
Would a typical investor know about the risks involved in this investment?	.639	.097	.460	-.087	-.146	-.125	-.148
Are the risks from this investment product known to financial experts?	-.262	.285	.555	.053	.334	.490	-.008
Could a typical investor control the risks involved in this investment?	.772	-.325	.230	.099	.192	-.057	.060
How great is the risk of losing all the money you put into this investment product?	.664	-.173	.164	.150	.333	.053	.230
To what extent can any losses from this product be observed by individual investors?	-.054	.056	.167	.592	.348	-.323	.149
Do you think this investment product is easy to understand?	.292	.233	.336	.303	-.465	.118	.257
Do you experience sales / purchase pressure while dealing with the product?	.592	.066	.003	.521	-.205	.110	.030
Is there a risk of receiving / providing biased advice from those who recommend the product?	.790	-.144	-.078	.058	-.142	-.255	-.124
How easy is it to observe the charges levied by the investment provider?	.520	.410	-.107	.071	-.411	-.156	-.274
To what extent will the government protect investors if something goes wrong with the investment?	.816	-.115	-.174	-.252	.032	-.107	-.119
To what extent is the investment provider regulated to protect individual's investments?	.401	.222	-.146	-.214	.032	.655	-.178
Is there a risk of losing money because the value of the investment may not rise in line with inflation?	.785	-.240	-.144	-.249	.113	-.008	.116
Is there a risk that the company providing this product may behave unethically?	.401	.511	.066	-.291	.112	-.015	-.036
To what extent do you think there are differences in the risks of this product between different brands?	.292	.717	-.081	.037	-.079	-.036	.024
Do you spend a lot of time monitoring this investment?	.203	.441	-.371	-.199	.399	-.075	.323
To what extent do you assess information on the product prior to purchase?	.442	.326	-.227	.328	.313	.123	.129
How great is the risk that you will be ruined as a result of this investment?	.205	-.021	.101	-.221	-.404	.066	.687
How great is the risk that the return from this investment might fall below expectations?	.265	.113	-.224	.370	.106	-.003	-.312
Extraction Method: Principal Component Analysis.							
a. 7 components extracted.							