

## SEGMENTATION OF INFORMATION SOURCES FOR MUTUAL FUNDS

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### ABSTRACT

The Indian mutual fund industry is growing. Statistics show that the Assets under Management increased by fourfold in the last ten years.<sup>1</sup> This depicts that investors consider mutual fund for their portfolio. At the retail level, information is sought to take informed decisions so the outcome is successful in terms of steady returns and capital appreciation. Of the nine information sources surveyed, published performance rankings was ranked number one source of information using the Weighted Average Score. Using factor analysis, the retail investors who are distinctive and diverse, were segmented on the basis on information sources used. Three factors were identified namely 'general and unbiased information seeker', 'additional information seeker' and 'personalized information seeker'.

**Keywords:** Mutual funds; information sources; Factor analysis; Rankings

### INTRODUCTION

The mutual fund industry has been growing at an alarming rate with the number of assets under management increasing leaps and bounds. The assets under management were Rs. 22.20 lakh crore as on 28th February, 2018 and have grown from Rs 5.05 trillion as on 31st March 2008 to Rs 22.20 trillion as on 28th February 2018 which is

more than fourfold increase in a span of about 10 years.<sup>1</sup>

Every consumer purchases goods or services based on the information gathered about the quality of the product or service. Similarly while purchasing a financial product, information is sought from various sources to make the right decision as the gain will depend on the quality of information considered.

A wrong decision based on improper information may lead to wrong selection of financial asset leading to loss. Sources of information are very important for selection of investment avenues. With the availability of a number of mutual fund schemes, reputation and track record of fund managers, objectives of each fund and the ever changing capital market scenario, makes purchasing a confusing affair. So an investor turns to various sources of information for clarity, comparisons and selection of mutual fund schemes.

A remarkable quantity of literature is available about information sources for purchasing a financial asset. Bhattacharjee and Kumar (2016) investigated the effectiveness of TV advertising for mutual fund companies and found that such adverts do attract the attention, interest, desire and action through purchase of mutual funds. An investor certainly depends on the information of advisors and other sources of information becomes secondary to the opinion of advisors is confirmed by a study conducted by the Brondesbury Group.<sup>2</sup> A study by Barber (2009) confirm that investors do certainly buy mutual funds based on the performance rankings of mutual fund schemes. Factors like risk perception, investment objectives of investors, features of mutual fund schemes, qualities of fund management (Sindhu, 2016) make investors search for information before purchasing mutual funds schemes (Singh and Iyer, 2014). The need to identify information sources becomes essential as the

average Indian investor looks at bank fixed deposits as a way of increasing returns as he fully doesn't understand the technicalities and jargons used. By exploring the sources he is able to select investment avenues to suit his investment needs and risk profile (Ranganathan 2004).

The objectives of the study are as follows:

1. To rank among the nine information sources the ones that are most important to the respondents.
2. To meaningfully group investors on the basis of similarity in the use of information sources.

#### METHODOLOGY OF THE STUDY

The data was collected on the basis of convenience sampling through a non-disguised structured questionnaire. The questionnaire was titled 'An analysis of mutual fund investment decision' with close ended questions and the data was collected from 100 respondents across Goa from November 2016 to December 2017. Based on the study of Capon (1996), nine information sources were identified which help investors choose a mutual fund scheme. Weighted average scores (WAS) were calculated by providing weights -2, -1, 0,+1 and +2 to 'not at all important', 'slightly important', 'neutral', 'very important' and 'extremely important'.

Factor analysis using Principal Component Analysis was applied for the identification of the core factors and data reduction. The sample adequacy was measured through the Kaiser-Meyer-Olkin using the SPSS software.

## Results and Analysis

### A. Demographic profile

Table 1: Demographic Profile of the Respondents

Variable	Description	Percentage
Age (years)	Below 25 years	08
	25 years to 34 years	29
	35 years to 44 years	33
	45 years to 54 years	23
	55 years and above	07
Gender	Male	69
	Female	31
Qualification	Up to Graduation	23
	Graduation	42
	Post Graduation	30
	Professional	05
Marital Status	Single	69
	Married	31
Occupation	Government Sector	36
	Private Sector	39
	Business	25
Annual Income	Up to Rs 2,50,000	18
	Rs 2,50,001 to 5,00,000	26
	Rs 5,00,001 to 10,00,000	49
	Rs 10,00,001 and above	07

Table 1 depicts the demographics consist of 29 per cent respondents in the age group of 25-35 years; 69 per cent are males, 42 per cent are graduates, 60 per cent are married, 39 per cent are private sector employees and 49 per cent have an annual income between Rs 5 lakh to 10 lakh.

Table 2: Information Sources for Purchase of Mutual Funds

Information Sources	Extremely Important		Very Important		Neutral		Not important		Not at all important		Score	WAS	Rank
	No. of Respondents	Percentage	No. of Respondents	Percentage	No. of Respondents	Percentage	No. of Respondents	Percentage	No. of Respondents	Percentage			
Published performance Rankings	4	4	42	42	19	19	29	29	6	6	147	1.47	1
Advertising in Print media, Television, Internet and Radio	1	1	17	17	31	31	32	32	19	19	3	0.03	9
Commission Based/ Fee Based Financial Advisors	2	2	25	25	25	25	27	27	21	21	41	0.41	6
Seminars and Workshops on Mutual Funds	3	3	20	20	27	27	23	23	27	27	18	0.18	7
Recommendations of Friends/Family	4	4	43	43	13	13	27	27	13	13	139	1.39	3
Recommendations of Business Associates	1	1	29	29	38	38	17	17	15	15	74	0.74	5
Web sites of AMFI, SEBI/ Company Websites	9	9	34	34	28	28	19	19	10	10	142	1.42	2
Direct Mail, newsletters, fact sheets	4	4	12	12	44	44	18	18	22	22	6	0.06	8
Key Information Memorandum/ Offer Document of respective Mutual Fund Schemes	7	7	34	34	35	35	14	14	10	10	137	1.37	4

Source: Primary Data

The sources of information along with frequencies, weighted score and ranks constitute Table 2. Of the nine sources surveyed the most important source is 'Published performance rankings' with WAS of 1.47. This source is followed by 'Websites of AMFI and company websites' and 'Recommendation of friends/family' with WAS of 1.42 and 1.39 respectively. The least important sources were 'Seminar and workshops on mutual funds', 'Direct mail, newsletter, factsheets and magazines' and 'Advertisement in print media, television, internet and radio' with WAS of 0.18, 0.06 and 0.03 respectively.

### B. Factor Analysis

The factor analysis by Principal Component method was applied to reduce the nine sources of information into a fewer number of the core factors.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.652	
Bartlett's Test of Sphericity	Approx. Chi-Square	150.751
	df	36
	Sig.	0.000

Source: Primary Data

Table 4: Total Variance

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.600	28.892	28.892	2.600	28.892	28.892	2.159	23.993	23.993
2	1.515	16.828	45.720	1.515	16.828	45.720	1.584	17.597	41.590
3	1.152	12.805	58.525	1.152	12.805	58.525	1.524	16.935	58.525
4	.888	9.641	68.166						
5	.811	9.012	77.178						
6	.648	7.206	84.383						
7	.539	5.984	90.368						
8	.497	5.519	95.887						
9	.370	4.113	100.000						

Extraction Method: Principal Component Analysis.

Source: Primary Data

Table 5: Rotated Component Matrix

Information Sources	Component		
	1	2	3
Published Performance Rankings	.234	.611	-.417
Advertising in Print media, Television, Internet and Radio	.669	.163	.069
Commission based/ fee based financial advisors	.283	-.117	.710
Seminars and Workshops on Mutual funds	.710	.095	.089
Recommendations of Friends/ Family	-.070	.262	.826
Recommendations of Business Associates	-.044	.815	.353
Websites of AMFI, SEBI/ Company websites	.489	.577	-.012
Direct Mail, newsletter, factsheet and magazines	.508	.300	.134
Key Information Memorandum/ offer Document of respective Mutual fund Schemes	.755	-.072	-.088

**Extraction Method:** Principal Component Analysis.

**Rotation Method:** Varimax with Kaiser Normalization.

Rotation converged in 7 iterations.

**Source: Primary Data**

To reduce the nine sources systematically, the Kaiser-Meyer-Okin (KMO) was used where the accepted measure should be more than 0.5 for the sample to be adequate. The Bartlett's Tests were applied for testing the sampling adequacy for the data reduction process as well as for formation of a bell shaped normal distribution of primary data. The results are displayed in Table 3, where KMO is 0.652 proving that the sample is adequate. At 95 per cent level of significance,  $\alpha = 0.05$  confirms the validity of factor analysis.

On the basis of Varimax Rotation with Kaiser Normalisation, three factors are extracted. These three factors identified are shown in Table 5. Thus after rotation, factor 1 accounts for 23.993 per cent; factor 2 for 17.597 per cent and factor 3 for 16.935 per cent. Nine sources of information are pulled together in three factors. These three factors explain the 58.525 per cent of variance in importance of information sources as seen in Table 4. Each factor constituted of those sources that has a factor loading of 0.5.

Table 6: Factor and Means of Information Sources

Factor	% Variance	Information Sources	Mean
General and unbiased Information Seeker	23.993	Advertising in Print media, Television, Internet and Radio	2.49
		Seminars and Workshops on Mutual funds	2.49
		Direct Mail, newsletter, factsheet and magazines	2.58
		Key Information Memorandum/ offer Document of respective Mutual fund Schemes	3.14
Additional Information Seeker	17.597	Published Performance Rankings	3.09
		Recommendations of Business Associates	2.84
		Websites of AMFI, SEBI/ Company websites	3.13

Factor	% Variance	Information Sources	Mean
Personalised Information Seeker	16.597	Commission based/ fee based financial advisors	2.60
		Recommendations of Friends/ Family	2.98

Source: Primary Data

The factors are named as 'General and unbiased Information Seeker', 'Additional Information Seeker' and 'Personalised Information Seeker' and are elaborated upon below. For this purpose reference is made to Table 6.

**Factor 1: General and unbiased Information Seeker**

As seen in Table 6, this factor has general information that is available to large number of investors. This factor has Key Information Memorandum (KIM) and the offer documents of mutual fund Company as the most important with a mean of 3.14 confirming that mutual fund information investor seeks information available in the KIM and offer documents before selecting a mutual fund scheme. This source is followed by Direct mail and factsheet of specific mutual fund company which again is general and common in nature. Information inseminated through Advertisement, seminars and workshop also forms part of this factor. Asset Management Companies (AMCs) should focus on drafting the KIM and other company related information in a readable manner as this information helps the investors in taking an informed decision.

**Factor 2: Additional Information Seeker**

As seen in Table 6, this comprises of online website information available on the sites of AMFI, SEBI and AMCs and has a mean of 3.13. Here the information decoded from published rankings and business associates also form part of the factor. This set of investors is knowledgeable and seeks additional information to make

purchase decisions. This factor confirms with the study of Lin (2002) that literature, media and the Internet are more likely to be chosen as an information source by consumers who considered themselves more knowledgeable.

**Factor 3: Personalised information Seeker**

As seen in Table 6, this set consists of the recommendation of family/friends is most important with a mean of 2.98 over the recommendation of fee or commission based advisors. This source of information is important as it is based on the personal experience of family and friends. This personalised information provided by family, friends and advisors is trusted by these investors.

**Conclusion**

This study has ranked the sources of information which are important amongst the investors. The respondents are also grouped based on use of sources of information. The resulting groups differ from each other in terms of sources of information considered for purchase of mutual funds. This study suggests that by using appropriate channels for infusing mutual fund information to the investing class, it benefits them in selecting a correct financial asset. Since impersonalised sources are more significant over personalised sources with the highest means, the AMCs should develop and constantly upgrade and present their factsheets, offer documents and have websites updated in a manner which will be easy for the investors to take an informed decision.

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### Notes

1. As in <https://www.amfiindia.com/indian-mutual>
2. As in [www.brondesbury.com/Publications](http://www.brondesbury.com/Publications)

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