

Information Sources For Investment Decision Making: Profiling Of Retail Investors

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Abstract

Informed investors are intelligent investors. The Government of India through the Ministry of Corporate Affairs (MCA) and the Securities and Exchange Board of India (SEBI) introduce stringent measures from time to time to ensure that the listed companies disclose sufficient information to its various stakeholders especially the investors. Both the MCA and the SEBI are also taking necessary steps to streamline sustainable business practices by corporates and disclosing the same through appropriate channels. In this article, we intend to study the level of importance given by retail investors to various sources of information including the sustainability reports/business responsibility reports and profile them accordingly. Administering a structured questionnaire consisting of 13 different sources of information to a randomly chosen sample of 428 equity investors we found that more than 50 per cent of the respondents are 'advice seekers'. Remaining are 'conventional source users'(30%) followed by 'informed investors' (20%). Findings of this study have implications for regulators, corporates, stock-broking firms and investors.

Key words: intelligent investors, informed investors, conventional investors, SRIs, disclosure practices, sustainability reporting, profiling investors

INTRODUCTION

Informed investors are intelligent investors. Reliable information is the most valuable currency in capital markets,(Bloomberg & Schapiro, 2014). Earlier financial statements were the only source of information for investment decision making. Investors also allocated their funds based on company's financial data alone. But now market complexity, investor's

information demand, company's emphasis on stakeholder management, regulatory requirements are driving the corporates to disclose more and more, (Boesso & Kumar, 2007). Financial statements were the only source of information for the investors but now the companies are using all available platforms to disclose relevant information to gain legitimacy. This would enable the investors to invest their money in companies which they feel are reliable and the companies in turn attract capital. Investors purposely seek information to take better investment decisions and achieve their investment goal (Bronstein, 2010).

The Government of India through the Ministry of Corporate Affairs (MCA) and the Securities and Exchange Board of India (SEBI) introduce stringent measures from time to time to ensure that the listed companies disclose sufficient information to its various stakeholders especially the investors. We carried out this study to identify the level of importance the individual investors give to different sources of information including sustainability reports while making their investment decisions and profile them accordingly.

LITERATURE REVIEW

We done an extensive literature search to identify the information seeking behaviour of investors. Investors seeking information by socializing with others and with high level knowledge of the investment practices experience less transaction cost associated with information searches. Information sources such as consulting services, advertisements, and asset allocation analyses are easily accessible. Older investors tend to possess greater ability to gather appropriate information for investment decision making (Yang, 2013).

Khan, Tan, & Chong(2017)states that institutional investors place their investment decisions based on economic statistics and ratios, discussion with peers, historical returns, press releases and bulletins. A survey by CFA institute revealed that financial statements are the most valuable source of investment information followed by expert opinion, financial blogs (social media), other sources and finally newspapers, TV and radio news (Voss, 2015).

According to (Scott & Smith, 1992)the most utilized sources of information for investment decision making are newspapers, trade journals, other financial reports, advisory services and direct contact with company officials.

Bloomberg & Schapiro(2014)suggests that disclosure of sustainability related information will be beneficial to shareholders and potential investors. Sustainability reporting in the form of Annual Business Responsibility Reports is mandatory for certain listed companies in India. Companies providing web links of the sustainability reports submitted to international agencies need not produce a separate business responsibility report.

There is an upward trend in the corporate governance disclosure practices of listed companies in India (Shrivastav & Kalsie, 2017)and the disclosure level is also high (Daga & Koufopoulos, 2010). As sustainability reporting and socially responsible investments are gaining importance globally we included sustainability reports and business responsibility reports also as sources of information in the in this study.

William E. Warren (1990) using lifestyle and demographic characteristics profiled the investors based on their current holding and type of holdings. Wood & Zaichkowsky (2004) profiled the investors based on their use of market information and their investment history. Using six demographic factors Kannadhasan (2015) classified retail investors into financial risk tolerant and financial risk taking behaviour categories. In this study, we try to profile them based on the importance they give to different information sources in their investment decisions.

METHODOLOGY

Single cross-sectional survey design is used in this study. We conducted this study by administering a pretested structured questionnaire to a randomly chosen sample of 428 equity investors in the state of Tamilnadu, India. In the questionnaire, the first section had items related to investors' demographic characteristics and the second on their investment characteristics both measured using nominal scale. The third section had the list of 13 information sources identified through literature survey and expert opinion. The investors were asked to rate the level of importance they give to different sources of information in their investment decisions using a five-point Likert scale (1 – not at all important, 2 – slightly important, 3 – neutral, 4 – very important and 5 – extremely important).

The demographic and investment characteristics of the investors were analysed using frequency analysis. Mean score analysis was used to rank the different sources of information. The underlying dimensions of the 13 sources of information were identified using factor analysis. Cluster analysis was used to segment the investors based on the level of importance they give to different information sources. The association between investors' demographic and investment characteristics with investor segments were identified using Chi-squared test. Finally, with the help of this association the investors were profiled by employing correspondence analysis.

FINDINGS

The frequency analysis of the demographic characteristics of the respondents reveal that 74% of them are male (see table 1).

Table 1 Demographic characteristics of the investors – frequency table

Demographic Characteristics	Category	Frequency	Percent
Gender	Female	108	25.23
	Male	320	74.77
Marital Status	Un married	94	21.96
	Married	334	78.04

Age	Less than 30 years	87	20.33
	31 to 40 years	134	31.31
	41 to 50 years	145	33.88
	51 to 60 years	36	8.41
	more than 60 years	26	6.07
Educational Qualification	HSC or less	20	4.67
	Diploma course	48	11.21
	Under Graduate	104	24.30
	Post Graduate	121	28.27
	Professional Course	135	31.54
Employment Status	Government Employee	102	23.83
	Private Employee	166	38.79
	Practising Professional	78	18.22
	Self Employed	65	15.19
	Retired	17	3.97
Monthly Income	Less than Rs. 30,000	83	19.39
	Rs. 30,001 to Rs. 50,000	107	25.00
	Rs. 50,001 to Rs. 70,000	123	28.74
	Rs. 70,001 to Rs. 1 lakh	78	18.22
	more than 1 lakh	37	8.64
Saving Percent	less than 5%	52	12.15
	5 to 10%	133	31.07
	11 to 20%	137	32.01
	21% to 30%	58	13.55
	more than 30%	48	11.21
Family Income	less than Rs. 50,000	36	8.41
	Rs. 50,000 to Rs. 1,00,000	135	31.54
	Rs. 1,00,001 to Rs. 1,50,000	157	36.68
	Rs. 1,50,001 to Rs. 2,00,000	69	16.12
	more than 2 lakhs	31	7.24

Majority of the investors are in the age group of 31 to 50 years (65%), highly educated (60% post-graduates and professional degree holders), with one-third of them being practicing professionals and self-employed individuals, with more than half of them earning above Rs. 50,000 per month and 24% of them saving more than 20 per cent of their income. Monthly household income of 60 per cent of the respondents are more than Rs. 1 lakh.

Table 2 Investment characteristics of the investors – frequency table

Investment Characteristics	Category	Frequency	Percent
Investment Experience	less than 1 year	29	6.78
	1 to 5 years	99	23.13
	6 to 10 years	133	31.07
	11 to 15 years	90	21.03
	more than 15 years	77	17.99
Frequency of investing	Daily	35	8.18
	Weekly	56	13.08
	Monthly	189	44.16
	Yearly	35	8.18
	Occasionally	113	26.40
Investment Percent	less than 5%	81	18.93
	5 to 10%	137	32.01
	11 to 20%	124	28.97
	21 to 30%	70	16.36
	more than 30%	16	3.74
Expected Annual Rate of Return	5 to 10%	58	13.55
	11 to 15%	181	42.29
	16 to 20%	145	33.88
	more than 20%	44	10.28
Risk preference	low	110	25.70
	medium	145	33.88
	high	173	40.42

From table 2 it is evident that majority of the respondents (70%) have more than five years of investment experience with 44% of the respondents investing on monthly basis, around 50% of them investing more than 10% of their income in equity with more than 15% expected annual rate of return expecting (44%). Finally, majority of them are having high risk preference.

Mean score analysis was conducted on the thirteen sources of information identified for the study and the results are presented in table 3. Based on the mean score the information sources were ranked from 1 to 13.

Table 3 Level of importance given to different information sources

Variable	Mean	Rank
Annual reports of the company	2.84	9
Quarterly reports of the company	2.78	10
Company websites	2.48	11
Other websites like www.moneycontrol.com	3.21	7
Business Responsibility Reports	2.40	12
Sustainability Reports	2.09	13
Friends & Peers	3.53	4
Family Members Opinion	3.40	5
Suggestions from brokers/sub brokers	3.78	1
Social media/forums	3.59	3
Newspaper, Magazine	3.26	6
TV shows on business/investments	3.72	2
Press releases on corporate actions	3.15	8

The investors indicated that suggestion from brokers/sub brokers is the most important source of information (mean = 3.78) followed by TV shows on business/investments (3.72), Social media/forums (3.59) and friends & peers (3.53). The individual investors keeping in mind their own level of expertise in financial management, number of assets they hold and the importance of timely decision making they seek expert advice (Lee & Cho, 2005). Financial products are different from consumer goods and so the investors rather than seeking for brands depend on expert advice/intermediaries for their financial decision making.

In India, with 24 per cent of the population having access to social networks (Statista, 2019), spending more than 2 ½ hours in social media every day (The Telegraph, 2019), and 34 per cent of them trusting the news they receive through social media (Aneez, Neyazi, Kalogeropoulos, & Nielsen, 2019) it is not a surprise that social media/forums is one of the most important information source of investment decision making for Indian investors. Investors have easy access to both media and professional advice (Yang, 2013).

The investors give relatively less importance to business responsibility reports and sustainability reports as an information source for their investment decision making. This might be due to the fact that sustainability reporting is still in its nascent stage in India or the benefits of it is not widely visible at least in the Indian context.

To identify the underlining dimensions in the information sources factor analysis was performed using eigen value procedure and principal component analysis method of extraction and the results are shown in table 4. Bartlett's test of sphericity and the Kaiser-Meyer-Olkin measure of sampling adequacy indicated that it was appropriate and acceptable to proceed with factor analysis on this data. Five factors with eigenvalues greater than one were extracted which gave the most interpretable solution. Varimax rotation was performed

since factors were expected to be uncorrelated and it is much simpler to understand and interpret (Kim & Mueller, 1978).

Table 4 Underlying dimensions of information sources

Bartlett's Test of Sphericity					
Approx. Chi-Square = 871.401, df = 78, sig. = 0.000					
Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.849					
Variable	Factor				
	1	2	3	4	5
Newspaper, Magazine	0.750				
Social media/forums	0.633				
TV shows on business/investments	0.541				
Business Responsibility Reports		0.816			
Sustainability Reports		0.797			
Other websites like www.moneycontrol.com			0.733		
Company websites			0.636		
Press releases on corporate actions			0.624		
Quarterly reports of the company				0.886	
Annual reports of the company				0.818	
Suggestions from brokers/sub brokers					0.802
Friends & Peers					0.625
Family Members Opinion					0.545
Eigenvalues	2.496	2.025	1.322	1.203	1.031
Percentage of variance explained	19.199	15.577	10.171	9.252	7.932

The first factor with an eigenvalue of 2.496 accounted for 19 percent of the variance in the data. The information source items loaded in to this factor are newspaper, magazine, TV shows and so this factor is labelled as **'media'**. The items that loaded in to the second factor are business responsibility reports and sustainability reports. These reports mostly portray the CSR activities of the company and so is named as **'CSR reports'**. The third factor with an eigenvalue greater than one explained remaining 10 percent of the variance. The items loaded in to this factor are company websites and other business websites. So the third factor is labelled as **'websites'**. The quarterly reports and annual reports of the company loaded in to the fourth factor. These reports are the basic financial reports of any company and so this factor is named as **'company reports'**. Finally, the items that loaded in to the fifth factor are suggestions from brokers, friends, family members and peers. So this factor is named as **'expert opinion'**. This factor also had eigenvalue greater than one and explained another 8 percent of the variance in the data.

The investors are segmented in to three clusters based on the level of importance they give to different information sources. The features of three clusters based on the mean values of information source factors are shown in table 5.

Table 5 Segmentation of investors using information source factors

Information source factors	Cluster			ANOVA	
	1	2	3	F value	Sig.
Media	3.75	3.32	3.47	15.531	0.000
CSR Reports	1.91	1.79	3.92	388.429	0.000
Websites	2.92	2.75	3.55	25.689	0.000
Company Reports	3.85	2.09	3.11	247.547	0.000
Experts Opinion	3.22	4.05	3.40	42.723	0.000
Average	3.13	2.80	3.49		
No. of cases	126	218	84		
Percentage	29.44	50.93	19.63		

The first cluster has highest mean value for company reports followed by media and expert opinion. Investors in this cluster considers company reports as one of the most important source of information for investment decision making along with other sources of information like media and expert opinion. These are the conventional sources of information and so the investors falling in to this cluster (29%) are named as **‘conventional source users’**.

In the second cluster, ‘expert opinion’ has highest mean value followed by media. More than half of the respondents (51 %) fall in to this cluster. Investors in this cluster rely mostly on experts opinion (seeks advice from stock brokers, friends and peers) for investment decision making and so this cluster is labelled as **‘advice seekers’**.

Finally, the third cluster has relatively high mean value (> 3) for all the five information source factors. It shows that investors under this cluster (20 percent) refer to all information sources for making their investment decision and so the investors in this cluster are named as **‘informed investors’**.

Table 6. Relationship between investor characteristics and investor segment

Investor characteristics	Chi-square value	p-value	Cramer's V
Gender	3.494	0.174	0.09
Marital Status	20.732	0.000	0.22
Age	86.216	0.000	0.317
Educational Qualification	49.847	0.000	0.241
Employment Status	128.432	0.000	0.387
Monthly Income	47.02	0.000	0.234
Saving Percent	4.304	0.829	0.071
Family Income	14.899	0.136	0.132
Investment Experience	62.919	0.000	0.271
Freq. of investing	41.065	0.000	0.219
Investment Percentage	6.978	0.539	0.09
Expected Annual Rate of Return	3.184	0.785	0.061
Risk preference	9.889	0.042	0.107

There is a significant association ($p < 0.05$) between demographic characteristics of investors (except gender, saving percent and family income) and investor segment. Based on Cramer's V, the effect is large for employment status alone and medium for all other significant associations. The range of Cramer's V for 2 degrees of freedom are low effect – 0.07, medium effect – 0.21 and large effect - .35(Cohen, 1988).

Among the investment characteristics of the investors there is a significant association between investment experience, frequency of investing, risk preference and investor segment. The effect size is medium in these significant associations. There is no significant association between investment percentage, expected annual rate of return and investor segment. These significant associations are displayed in figure 1 and 2.

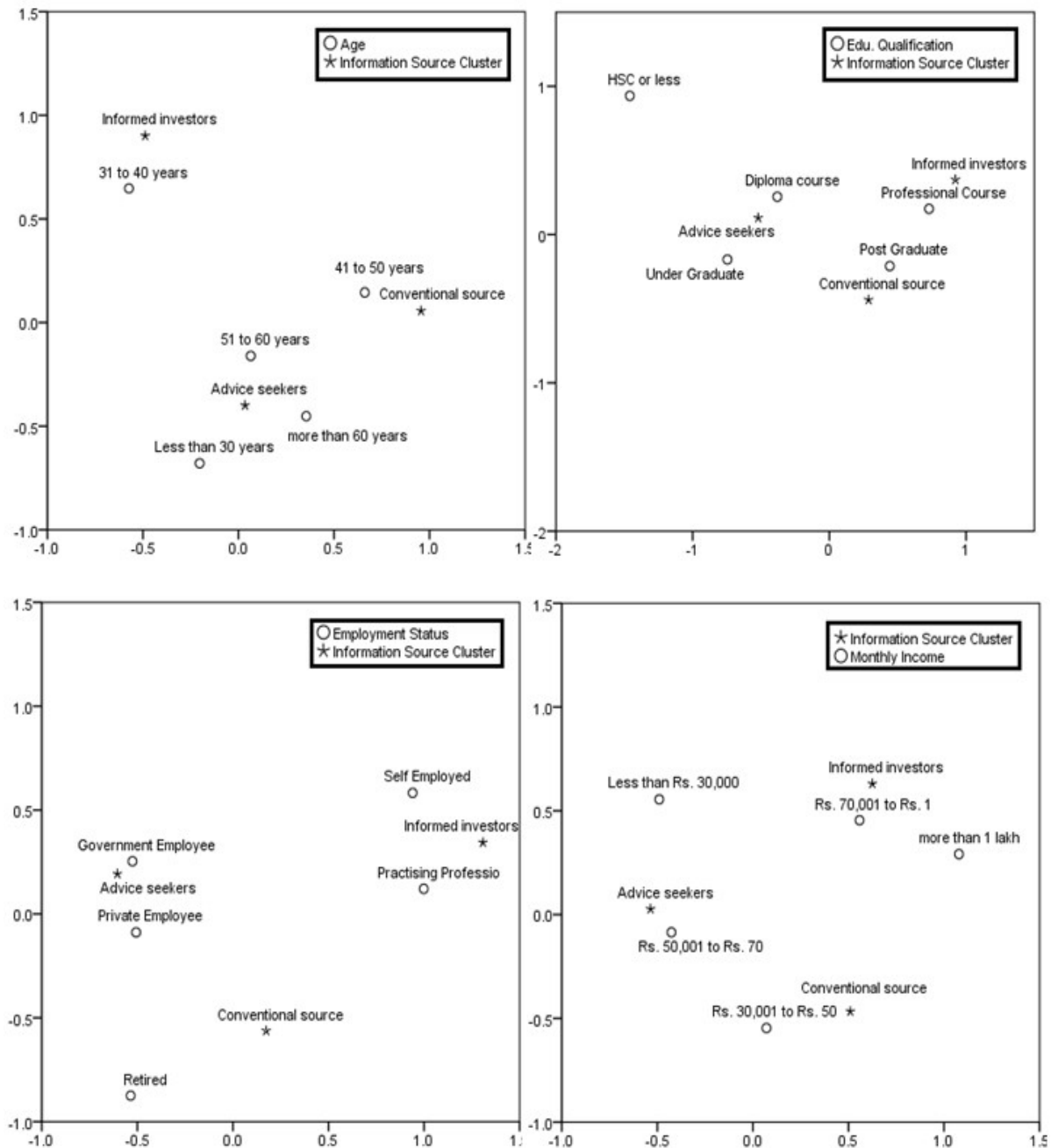


Figure 1. Association between demographic characteristics and investor segment

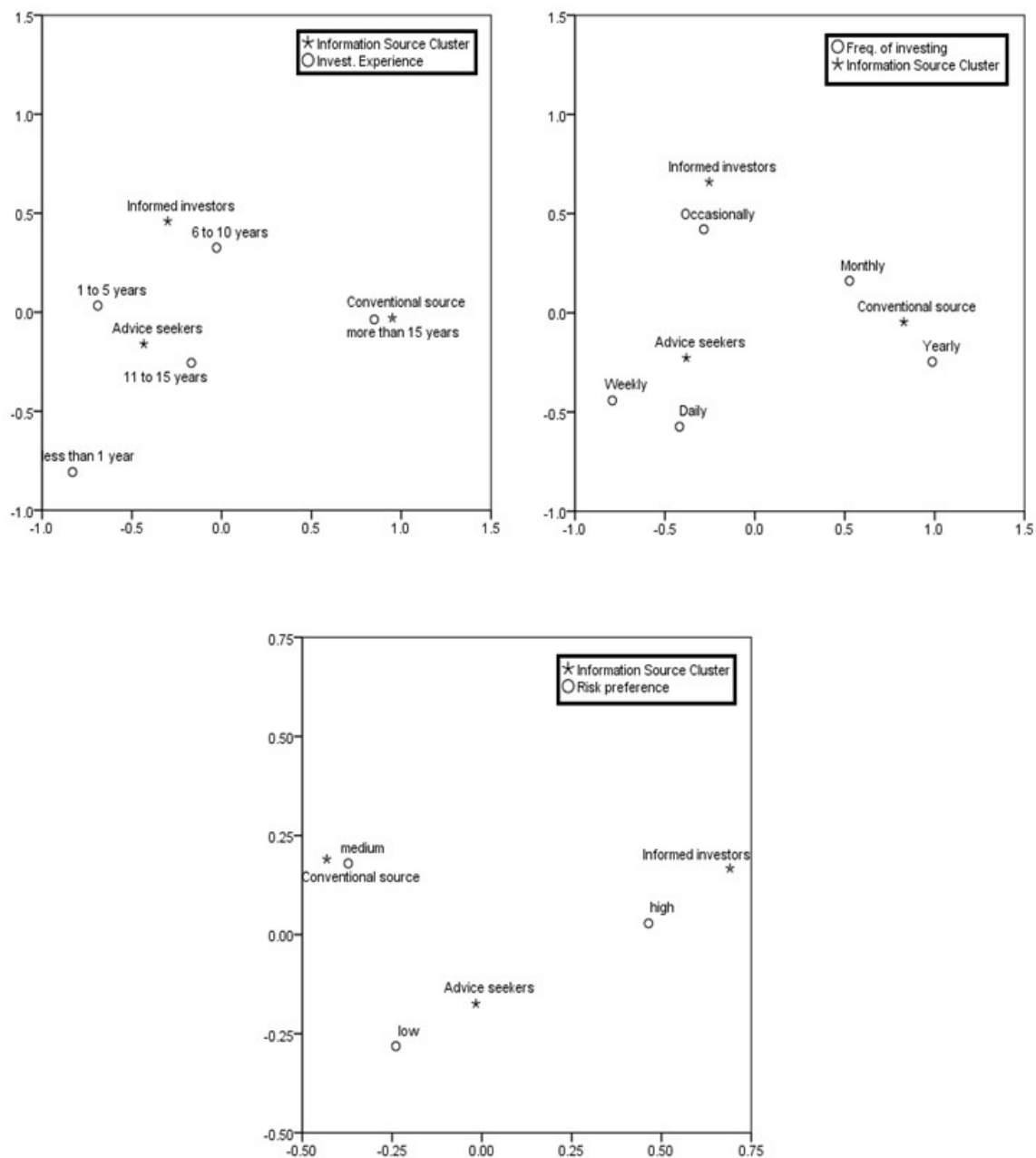


Figure 2. Association between investment characteristics and investor segment

Combining the results of cluster analysis, chi-squared test and correspondence analysis the investors are profiled in to three groups using their demographic and investment characteristics (see table 7).

Table 7. Profiling of investors

Investor Characteristics	Conventional source users	Advice seekers	Informed investors
Age	41 to 50 years	less than 30 years, 51 to 60 years, above 60 years	31 to 40 years
Educational Qualification	Post Graduate	Diploma Course, Under Graduate	Professional Course
Employment Status	--	Government Employee, Private Employee	Practising Professional, Self Employed
Monthly Income	Rs. 30,001 to Rs. 50,000	Rs. 50,001 to Rs. 70,000	Rs. 70,001 to Rs. 1 lakh, more than 1 lakh
Investment Experience	more than 15 years	1 to 5 years, 11 to 15 years	6 to 10 years
Frequency of investing	Monthly, Yearly	Daily, Weekly	Occasionally
Risk preference	low	medium	high

The investors in profile-1 fall in the age group of 41 to 50 years with a post-graduation and a monthly income of Rs. 30,001 to Rs. 50,000. Such investors have rich investing experience with a systematic investing habit preferring low risk. They use conventional source of information for their investment decision making.

The investors in profile-2 are advice seekers. They seek opinion from experts, friends and peers for making their investment decision. They fall in to different age groups with varied investment experience. They are diploma holders or undergraduates, employed in a government/private sector with a monthly income of Rs. 50,001 to Rs. 70,000. They prefer medium risk and invest on a daily/weekly basis.

The investors falling in to profile-3 are practising professionals and self-employed individuals. They are in the age group of 31 to 40 years with a professional qualification. They earn relatively more, has 6 to 10 years of investment experience and invest occasionally. They are high risk taking individuals.

CONCLUSION, IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study was carried out with the objective to identify the level of importance retail investors give to different information sources including sustainability reports for making their investment decisions and profile them accordingly.

Suggestion from brokers/sub brokers is the most important source of information followed by TV shows on business/investments, Social media/forums and friends & peers. The investors give relatively less importance to business responsibility reports and sustainability reports as an information source for their investment decision making. This might be due to the fact that sustainability reporting is still in its nascent stage in India or the benefits of it is not widely visible at least in the Indian context.

The information sources identified are conveniently grouped as media, company reports, CSR reports, websites and experts opinion. Based on this the investors are segmented in to three groups as conventional source users, advice seekers and informed investors. Finally, three segments of the investors are profiled using their demographic and investment characteristics. More than half of the respondents are advice seekers i.e they rely on the suggestions by brokers/sub brokers, friends and peers for making their investment decisions.

Findings of this study have implications for regulators, corporates, stock-broking firms and investors. The SEBI is responsible for the smooth functioning of the capital market in India. The findings of this study reveal that majority of the investors seek opinion from experts which includes stock brokers/sub-brokers for making their investment decisions. So, the SEBI must introduce measures to curb fake promises by stock broking firms/its representatives. It must also keep watch of the promotions made by such firms in media. In addition to imposing fine for the malpractices(PTI, 2018) it should reward the fair practices of the stock brokers. Investor awareness program should focus on responsible investment practices as well.

The corporates must understand the needs and opinions of the investors and make disclosures in such a way that it is easily accessible and understandable(PWC, 2019).The findings of this study suggests that investors see social media as one of the most important sources of information for their investment decision making. So, companies must also have corporate social media policies and increase their social media presence by disseminating important corporate disclosures to its stakeholders. The users respond more quickly to information disclosed in social media(Zhou, Lei, Wang, Fan, & Wang, 2015). This will not only reduce information asymmetry (Kurinyepa, 2016) but also effectively manage investors' perception(Cade, 2018). The corporates must not only disclosure their positive earnings (Jung, Naughton, Tahoun, & Wang, 2014; Tonello, 2016)but also their sustainability initiatives.

As investors rely more on suggestions from stock brokers/sub-brokers it is their responsibility to recommend appropriate products. By being responsible, brokers can make/build responsible investors. Like stock exchanges, broking firms also must sign/adapt responsible investment principles.

Informed investors are intelligent investors. It is their responsibility to protect themselves. Distracted investors will miss important information or give more importance to less important information (Barber & Odean, 2013). They should not be carried away by fake promises and unrealistic claims. Investors must do a thorough information search before making their investment decision to realize their investment goal.

The opportunity to interact with the brokers/sub-brokers during the data collection process of this study revealed that in fact it is true that the retail investors seek information from their brokers/sub-brokers. But the brokers/sub-brokers are of the opinion that the investors do not place their investment decisions as per their suggestions. This bias can be explored in the future research. As socially responsible investment practices are gaining importance globally the extent of brokers/sub-brokers and peers recommending a socially responsible products can be studied.

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