

## **ROLE OF SEBI IN FINANCIAL FRAUD DETECTION, INVESTIGATION AND PREVENTION - AN OPINION SURVEY**

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### **Abstract**

*India has had its share of frauds and their incidence has often significantly impacted investor confidence. In an atmosphere of doubt and disbelief financial statements are often viewed with skepticism. This has also led to erosion of confidence and reduced trust among participants in the financial system. The present study is made an attempt to analyze and compare the perception of select investors, stock brokers and sub-brokers, auditors, stock exchange officials, SEBI officials on the role of SEBI in fraud detection, investigation and prevention practices. With the help of perceptions collected from the sample respondents analyzed and interpreted with the help of appropriate statistical tools. It is concluded from this study is that the market regulator i.e., SEBI is performing an excellent role in detection, investigation and prevention practices by updating regulatory aspects from the time to time for the protection of interests of investors.*

**Keywords:** *Fraud Detection, Fraud Investigation, Fraud Prevention.*

### **1. Introduction**

Fraudulent financial reporting practices can have significant consequences for organizations and all stakeholders, as well as, for public confidence in the capital and security markets. In fact, comprehensive, accurate and reliable financial reporting is the bedrock upon which our markets are based. Frauds occur with alarming periodicity and cannot be regulated. But can be tried to minimize its deleterious impact. Historically, scams have led to regulatory reforms, including forming institutions and strengthening the institutional framework. Increased co-ordination between the various regulators is imperative to ensure perpetrators do not fall between the cracks.

Investors are equally susceptible fraud can be looked at in two different ways. One way of looking at fraud is to assume that those who commit fraud are genius or creative people who always find innovative ways to commit fraud. This research paper is aimed to compare the perception of five groups of respondents on the role of SEBI in fraud detection, investigation and prevention practices.

### **2. Review of Literature**

In search of some preventive actions to avoid or at least reduce frauds, many researchers have investigated the related factors (Albrecht *et al.*, 2007; Bar-Gill & Bebchuck, 2003; Hemray, 2004; Lev, 2003; Rezaee, 2002). A large part of literature has focused specifically on the reasons of financial frauds and its impact on the investors. Shah (1999) has documented many of the institutional improvements in the Indian securities markets. Other paper by Shah and Thomas (2000) investigates the design of the securities market, the practice of risk

management, and market microstructure. Sabarinathan (2010) assesses the efficiency and structure of the statutory levels operated by SEBI. This assessment concludes that SEBI is an efficiently authorized and autonomous competent regulator<sup>1</sup>.

### 3. Research Gap

There are numerous studies which have conducted by many researchers on various topics related to capital market scams, time to time initiatives of market regulator to curb the scams and its working and performance from its inception. This study is different from the existing studies in a manner that it has aimed to compare the perception of five groups of respondents on the role of market regulator in fraud detection, investigation and prevention practices.

### 4. Objective of the Study

The important objective framed for this study is that to collect and analyze the perception of select investors, stock brokers, officials from stock exchanges and SEBI and auditors on the role of SEBI in fraud detection, investigation and prevention practices.

### 5. Hypothesis of the Study

**H<sub>0</sub>:** There is no significant difference in the perception of five different categories of respondents on the role of SEBI in fraud detection, investigation and prevention practices.

### 6. Research Methodology

The research methodology used in the present study is presented as follows:

**6.1. Sources of Data:** This study is mainly based on primary data. The primary data was collected through structured questionnaire. The questionnaire is divided into three parts such as 20 statements each related to fraud detection, investigation and prevention practices.

**6.2. Type of Sample:** The sample selection for this study is done by using purposive sampling. The purpose of this study is to judge the role of SEBI in fraud detection, investigation and prevention practices with the help of opinions collected from select respondents.

**6.3. Sample Size:** The detailed sample respondent groups and their representation are presented in table-1.

No.	Type of Respondents	No. of Respondents
01	Retail Investors	250
02	Stock Brokers and Sub-brokers	50
03	Stock Exchange Officials	15
04	SEBI Officials	05
05	Auditors	50

<sup>1</sup>. <http://www.vikalpa.com/pdf/articles/2010/Vik354-02-ResGSabarinathan.pdf>

Total	370
Source: Compiled from primary data.	

**6.4. Statistical Tools:** The data collected was tabulated, presented, analyzed, tested and interpreted with the help of Kruskal-wallis test and chi-square test.

**6.5. Reliability:** Cronbach's alpha is the most common measure of internal consistency ("reliability"). The results of the overall reliability statistics are presented in table-2.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.948	.947	60

Source: Compiled primary data and processed with the help of SPSS package.

The Cronbach's Alpha value is greater than 0.80 hence the study is valid.

## **7. Perception of Respondents on the Role of SEBI in Fraud Detection, Investigation and Prevention Practices**

SEBI is molding itself over the period of its inception for the purpose of protection of interests of investors and smooth running of capital market operations. There is a doubt that the SEBI is successfully detecting, investigating and preventing the fraudulent and unfair trade practices in the capital market. Hence, this research paper is aimed to analyze the perception of investors, stock brokers, market regulators and auditors on role of SEBI in fraud detection, investigation and prevention practices. The perception of select respondents on these three important practices of SEBI is discussed and presented in the following paragraphs:

### **7.1. Perception of Respondents on the Role of SEBI in Fraud Detection Practices**

Fraud detection is known as identifying fraud as quickly as possible when it has been perpetrated. Once fraud prevention fails, Fraud detection comes into play. Fraud detection must be used continually, because one may be unaware that fraud prevention has failed. Fraud detection is a continuously evolving process. Whenever fraudsters come to know that one detection method is in place, they will change their strategies and try others.

Here the Kruskal-Wallis H Test is used to determine whether there is a significant difference in the perception of select respondents regarding role of SEBI in fraud detection practices. The hypothesis for the test is framed and presented as follows:

**H<sub>01</sub>:** There is no significant difference in the perception of five different categories of respondents on the role of SEBI in fraud detection practices.

The mean ranks of respondent groups on fraud detection practices are presented in table-3.

Response	Respondents	N	Mean Rank
Response	Investors	2000	1355.39

	Stock Brokers	400	1735.75
	Stock Exchange Officials	120	1930.70
	SEBI Officials	40	1935.83
	Auditors	400	1681.55
	Total	2960	
Source: Computed from the primary data with the help of SPSS Package.			

It is observed from the table-1 that the total number of relations processed is 2,960. Out of which investors, stock brokers, stock exchange officials, SEBI Officials and auditors are 2000, 400, 120 40 and 400 respectively. The mean ranks of five groups are 1355.39, 1735.75, 1930.70, 1935.83 and 1681.55. Only **eight questions** are processed for this test such as question number 1, 2, 3, 5, 6, 7, 8 and 20. The Kruskal-Wallis test statistics are presented as follows:

Test Statistics <sup>a,b</sup>	
	Response
Chi-Square	168.555
df	4
Asymp. Sig.	0.000
a. Kruskal Wallis Test	
b. Grouping Variable: Respondents	
Source: Computed from the primary data with the help of SPSS Package.	

The chi-square test statistic value is 168.555 with degrees of freedom of 4. The ‘p’ value of the statistic is less than 0.05. Hence, null hypothesis is rejected and alternative hypothesis is accepted inferring that there is a significant difference in the perception of five different categories of respondents on the Role of SEBI in Fraud Detection Practices.

As per Kruskal-Wallis Test there is significant difference in the perception of five groups of respondents but it does not tell which specific groups differed. Post hoc tests are run to confirm where the differences occurred between groups. Post hoc tests attempt to control the experiment-wise error rate (usually alpha = 0.05) in the same manner that the one-way ANOVA is used instead of multiple t-tests. Tukey’s honestly significant difference (HSD) test is more appropriate to use for this data with the assumption of homogeneity of variance. The multiple comparisons of group mean differences and its significant levels are presented in the table-4.

Table-4: Multiple Comparisons of Group Means on Fraud Detection Practices of SEBI						
Dependent Variable: Response						
Tukey HSD						
(I) Respondents	(J) Respondents	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Investors	Stock Brokers	-.482*	.055	.000	-.63	-.33
	Stock Exchange Officials	-.747*	.094	.000	-1.00	-.49

	SEBI Officials	-.555*	.147	.002	-.96	-.15
	Auditors	-.389*	.055	.000	-.54	-.24
Stock Brokers	Investors	.482*	.055	.000	.33	.63
	Stock Exchange Officials	-.264	.105	.086	-.55	.02
	SEBI Officials	-.073	.154	.990	-.49	.35
	Auditors	.093	.071	.686	-.10	.29
Stock Exchange Officials	Investors	.747*	.094	.000	.49	1.00
	Stock Brokers	.264	.105	.086	-.02	.55
	SEBI Officials	.192	.172	.798	-.28	.66
	Auditors	.358*	.105	.006	.07	.64
SEBI Officials	Investors	.555*	.147	.002	.15	.96
	Stock Brokers	.073	.154	.990	-.35	.49
	Stock Exchange Officials	-.192	.172	.798	-.66	.28
	Auditors	.166	.154	.817	-.25	.58
Auditors	Investors	.389*	.055	.000	.24	.54
	Stock Brokers	-.093	.071	.686	-.29	.10
	Stock Exchange Officials	-.358*	.105	.006	-.64	-.07
	SEBI Officials	-.166	.154	.817	-.58	.25
*. The mean difference is significant at the 0.05 level.						
Source: Computed from the primary data with the help of SPSS Package.						

As per the table-4, there are five groups and each group mean is compared with other four groups mean to know that there is significant difference at 5% level in the perception of groups on the role of SEBI in fraud detection practices. The means for groups in homogeneous subsets are displayed as follows.

<b>Response on Fraud Detection Practices of SEBI</b>				
Tukey HSD				
Respondents	N	Subset for alpha = 0.05		
		1	2	3
Investors	2000	3.28		
Auditors	400		3.67	
Stock Brokers	400		3.76	3.76
SEBI Officials	40		3.83	3.83
Stock Exchange Officials	120			4.03
Sig.		1.000	0.627	0.168
Means for groups in homogeneous subsets are displayed.				
a. Uses Harmonic Mean Sample Size = 144.152.				
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.				
Source: Computed from the primary data with the help of SPSS Package.				

Finally it is observed from the above table that there are three subsets. Out of which investors’ perception is unique. Auditors, stock brokers and SEBI officials have the similar perception on the fraud detection practices of SEBI and the third subset is stock brokers, SEBI officials and stock exchange officials’ perception is one and same on the issue.

**7.2. Perception of Respondents on the Role of SEBI in Fraud Investigation Practices**

“No vibrant corporate growth can be expected if most investors have so little confidence in corporate managements and various agencies, which are supposed to protect investors”. This situation called for a strong official initiative from the regulators and government for introducing radical reforms in corporate governance in the stock market. Capital markets are rampant with fraud. Investigators are frustrated with their lack of success in protecting the integrity of the public market place.

Here the Kruskal-Wallis H Test is used to determine whether there is a significant difference in the perception of select respondents regarding role of SEBI in fraud investigation practices. The hypothesis for the test is framed and presented as follows:

**H<sub>02</sub>:** There is no significant difference in the perception of five different categories of respondents on the role of SEBI in fraud investigation practices.

The mean ranks of respondent groups on fraud investigation practices are presented in table-5

	<b>Respondents</b>	<b>N</b>	<b>Mean Rank</b>
<b>Response</b>	Investors	1250	952.70
	Stock Brokers	250	718.58
	Stock Exchange Officials	75	1136.62
	SEBI Officials	25	1407.00
	Auditors	250	876.65
	Total	1850	

Source: Computed primary the primary data with the help of SPSS Package.

It is evident from the table-5 that the total number of relations processed is 1,850. Out of which investors, stock brokers, stock exchange officials, SEBI Officials and auditors are 1,250, 250, 75, 25 and 250 respectively. The mean ranks of five groups are 952.70, 718.58, 1136.62, 1407.00 and 876.65. Only **five questions** are processed for this test such as question number 25, 27, 28, 29 and 30. The Kruskal-Wallis test statistics are presented as follows:

	<b>Response</b>
Chi-Square	89.955
df	4
Asymp. Sig.	0.000
a. Kruskal Wallis Test	
b. Grouping Variable: Respondents	

Source: Computed from the primary data with the help of SPSS Package.

The chi-square test statistic value is 89.955 with degrees of freedom of 4. The ‘p’ value of the statistic (0.000) is less than 0.05. Hence, null hypothesis is rejected and alternative hypothesis is accepted inferring that there is a significant difference in the perception of five different categories of respondents on the Role of SEBI in Fraud Investigation Practices.

As per Kruskal-Wallis Test there is significant difference in the perception of five groups of respondents but it does not tell which specific groups differed. Post hoc tests attempt to



control the experiment-wise error rate. The multiple comparisons of group mean differences and its significant levels are presented in the table-6.

**Table-6: Multiple Comparisons of Group Means on Fraud Investigation Practices of SEBI**

**Dependent Variable: Response**

**Tukey HSD**

(I) Respondents	(J) Respondents	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Investors	Stock Brokers	.591*	.067	.000	.41	.77
	Stock Exchange Officials	-.348*	.119	.030	-.67	-.02
	SEBI Officials	-.794*	.179	.000	-1.28	-.31
	Auditors	.287*	.067	.000	.10	.47
Stock Brokers	Investors	-.591*	.067	.000	-.77	-.41
	Stock Exchange Officials	-.939*	.131	.000	-1.30	-.58
	SEBI Officials	-1.385*	.187	.000	-1.90	-.88
	Auditors	-.304*	.086	.004	-.54	-.07
Stock Exchange Officials	Investors	.348*	.119	.030	.02	.67
	Stock Brokers	.939*	.131	.000	.58	1.30
	SEBI Officials	-.446	.211	.215	-1.02	.13
	Auditors	.635*	.131	.000	.28	.99
SEBI Officials	Investors	.794*	.179	.000	.31	1.28
	Stock Brokers	1.385*	.187	.000	.88	1.90
	Stock Exchange Officials	.446	.211	.215	-.13	1.02
	Auditors	1.081*	.187	.000	.57	1.59
Auditors	Investors	-.287*	.067	.000	-.47	-.10
	Stock Brokers	.304*	.086	.004	.07	.54
	Stock Exchange Officials	-.635*	.131	.000	-.99	-.28
	SEBI Officials	-1.081*	.187	.000	-1.59	-.57

\*. The mean difference is significant at the 0.05 level.

Source: Computed from the primary data with the help of SPSS Package.

It is observed from the table-6 that there are five groups and each group mean is compared with other four groups mean to know that there is significant difference at 5% level in the perception of groups on the role of SEBI in fraud investigation practices. The means for groups in homogeneous subsets are displayed as follows.

**Response on Fraud Investigation Practices of SEBI**

**Tukey HSD**

Respondents	N	Subset for alpha = 0.05			
		1	2	3	4
Stock Brokers	250	3.15			
Auditors	250	3.45	3.45		
Investors	1250		3.74	3.74	
Stock Exchange Officials	75			4.09	
SEBI Officials	25				4.53
Sig.		0.224	0.279	0.118	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 88.299.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
Source: Computed from the primary data with the help of SPSS Package.

Finally it is observed from the above table that there are four subsets. Out of which stock brokers and auditors, auditors and investors, investors and stock exchange officials, and SEBI officials’ groups responses are arranged in first, second, third and fourth subsets respectively. Finally it is found that the SEBI official’s perceptions are unique and there is uniformity in the perception of stock brokers and auditors, auditors and investors, investors and stock exchange officials.

**7.3. Perception of Respondents on the Role of SEBI in Fraud Prevention Practices**

Prevention is always better than cure. The same is being followed up by SEBI. SEBI is playing a proactive role in prevention of fraudulent activities by taking some initiatives such as taking an action in a phased manner by framing the guidelines for the conduct of trades, for placing the orders and giving the code of conduct for the market intermediaries, brokers and regulators.

Here the Kruskal-Wallis H Test is used to determine whether there is a significant difference in the perception of select respondents regarding role of SEBI in fraud prevention practices. The hypothesis for the test is framed and presented as follows:

**H<sub>03</sub>:** There is no significant difference in the perception of five different categories of respondents on the role of SEBI in fraud prevention practices.

The mean ranks of respondent groups on fraud prevention practices are presented in table-7.

	<b>Respondents</b>	<b>N</b>	<b>Mean Rank</b>
<b>Response</b>	Investors	1250	867.53
	Stock Brokers	250	988.75
	Stock Exchange Officials	75	1160.80
	SEBI Officials	25	1156.00
	Auditors	250	1064.06
	Total	1850	

Source: Computed from the primary data with the help of SPSS Package.

It is evident from the table-7 that the total number of relations processed is 1,850. Out of which investors, stock brokers, stock exchange officials, SEBI Officials and auditors are 1,250, 250, 75, 25 and 250 respectively. The mean ranks of five groups are 867.53, 988.75, 1160.80, 1156.00 and 1064.06. Only **five questions** are processed for this test i.e., question number 45, 51, 52, 53 and 56. The Kruskal-Wallis test statistics are presented as follows:

<b>Test Statistics<sup>a,b</sup></b>	
	<b>Response</b>
Chi-Square	59.210
df	4
Asymp. Sig.	.000
a. Kruskal Wallis Test	
b. Grouping Variable: Respondents	



Source: Computed from the primary data with the help of SPSS Package.

The chi-square test statistic value is 59.210 with degrees of freedom of 4. The ‘p’ value of the statistic (0.000) is less than 0.05. Hence, null hypothesis is rejected and alternative hypothesis is accepted inferring that there is a significant difference in the perception of five different categories of respondents on the Role of SEBI in Fraud Prevention Practices.

As per Kruskal-Wallis Test there is significant difference in the perception of five groups of respondents but it does not tell which specific groups differed. The multiple comparisons of group mean differences and its significant levels are presented in the table-8.

**Table-8: Multiple Comparisons of Group Means on Fraud Prevention Practices of SEBI**

**Dependent Variable: Response**  
**Tukey HSD**

(I) Respondents	(J) Respondents	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Investors	Stock Brokers	-.242*	.075	.011	-.45	-.04
	Stock Exchange Officials	-.628*	.131	.000	-.98	-.27
	SEBI Officials	-.642*	.199	.011	-1.19	-.10
	Auditors	-.386*	.075	.000	-.59	-.18
Stock Brokers	Investors	.242*	.075	.011	.04	.45
	Stock Exchange Officials	-.386	.144	.058	-.78	.01
	SEBI Officials	-.400	.208	.308	-.97	.17
	Auditors	-.144	.097	.568	-.41	.12
Stock Exchange Officials	Investors	.628*	.131	.000	.27	.98
	Stock Brokers	.386	.144	.058	-.01	.78
	SEBI Officials	-.014	.234	1.000	-.65	.63
	Auditors	.242	.144	.448	-.15	.64
SEBI Officials	Investors	.642*	.199	.011	.10	1.19
	Stock Brokers	.400	.208	.308	-.17	.97
	Stock Exchange Officials	.014	.234	1.000	-.63	.65
	Auditors	.256	.208	.735	-.31	.83
Auditors	Investors	.386*	.075	.000	.18	.59
	Stock Brokers	.144	.097	.568	-.12	.41
	Stock Exchange Officials	-.242	.144	.448	-.64	.15
	SEBI Officials	-.256	.208	.735	-.83	.31

\*. The mean difference is significant at the 0.05 level.

Source: Computed from the primary data with the help of SPSS Package.

It is observed from the table-8 that there are five groups and each group mean is compared with other four groups mean to know that there is significant difference at 5% level in the perception of groups on the role of SEBI in fraud prevention practices. The response on fraud prevention practices subset for alpha is presented as follows:

<b>Response on Fraud Prevention Practices of SEBI</b>
<b>Tukey HSD</b>

Respondents	N	Subset for alpha = 0.05	
		1	2
Investors	1250	3.36	
Stock Brokers	250	3.60	3.60
Auditors	250	3.74	3.74
Stock Exchange Officials	75		3.99
SEBI Officials	25		4.00
Sig.		0.119	0.096
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 89.250.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			
Source: Computed from the primary data with the help of SPSS Package.			

Finally it is observed from the above table that there are two subsets. Out of which investors, stock brokers and auditor’s groups responses are arranged in first and except investors remaining groups are arranged in second sub-set. Finally it is found that the stock brokers and auditors perceptions are similar on the role of SEBI in fraud prevention practices.

**8. Conclusion**

It is concluded from the perceptions of respondents that the existing corporate governance guidelines prevent frauds, existing system prevents violations by entities, regulator’s current crisis management helps to maintain financial stability, current system prevents money laundering activities and SEBI is playing efficient role in registering and regulating stock brokers in order to prevent the fraudulent financial practices. The perception of Investors’ and SEBI officials is unique on the role of SEBI in fraud detection and fraud investigation practices. Auditors’ and stock brokers’ perceptions are similar on the role of SEBI in fraud prevention practices.

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