



## **FACTORS INFLUENCING INVESTORS BEHAVIOUR IN COMMODITY MARKET - WITH REFERENCE TO VIRUDHUNAGAR DISTRICT**

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### **INTRODUCTION**

Investment decisions are made by investors individually or discuss with investment managers. To Investors commonly take investment decision after analysis the performance of investment by making use of different analysis i.e., fundamental analysis, technical analysis. Some people would like to invest their money in the real estate, some of in Stock Market, some in gold, fixed deposits, commodity market and so on. It is assumed that information structure and the factors in the market systematically influence the market outcomes as well as investors' investment decisions. Investment behavior of the Investors is highly affected by various types of information factors. These factors will focus upon how investors interpret and act on information to make investment decisions. Hence, investment decisions need to undergo a thorough analysis of the situations prevailing based on a number of factors, however regardless of the varied information available that justifies rationality and irrationality, investors are keen to avoid uncertainties associated with the ultimate decisions they engage in. Investment in commodity market is not very common for the investors. They invest in the commodity market for different reasons. Some of the investors invest in the commodity market for Trading purpose, some for investment purpose. But when they invest in the commodity market, they do not know that certain factors affect their investment decision. Many people make investment emotionally, feeling fantasy, mood and sentiments have been observed to affect investment decision. These are some psychological factors that affect the investors in investment decision. Therefore it is needs to determine the factors that appear to influence the individual investment decisions, and included not only the factors

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investigated by previous studies and also introduced additional factors that have been found to influence the peoples investment decisions in emerging local market.

## **STATEMENT OF THE PROBLEM**

The individual investor's decision to invest in the commodity market will determine the level of funds available and the efficient functioning of the market. Therefore investment decisions need to undergo a thorough analysis of the situations prevailing based on a number of factors, however regardless of the varied information available that justifies rationality and irrationality, investors are keen to avoid uncertainties associated with the ultimate decisions they engage in. Hence, investors have to consider many factors like Economic environment, Political stability, Industrial growth etc., before they invest. To encourage, enhance and safeguard investor, a number of reforms have been initiated by the Security Exchange Board of India (SEBI). Even though the information provided to the investor is not sufficient. Hence the investor and the stock market players are searching for required information through different ways. Individual investors suffer in this market in manifold like high transaction costs, poor liquidity, non-availability of timely and appropriate information and absence of unnecessary frictions etc. For instance, investors are not willing to invest more and they face maximum risk and constraints in the course of their participation in the market. Because of it they cannot easily get their cash whenever they desire to get out of the market. It is important to explore factors influencing the decision of investors.

An investment in commodity market is high risky than that of the stock market. So it needs proper guidelines and education to all investors. Understanding of investors' behavior and outcomes through behavior process in the form investment decision and identifying factors play an important role in determining the behavior of investors is much important for financial planners and market brokers as well as the government., because it would help them devise appropriate asset allocation strategies to their clients but studying the investor's perception, expectation, and satisfaction level on their investment avenue is very difficult. In this background, the study has raised the following research questions:

- i) What are the factors that affect the individual investor's behavior especially in commodity market?
- ii) To what extent individual investors awareness towards commodity markets?

These questions help to define the focus, significance, and objectives of the study.

## **OBJECTIVES OF THE STUDY**

The present study is undertaken with the following specific objectives.

1. To study commodity market trends and its trading practices in India.
2. To identify the major factors influence the investors to invest in commodity market

## **HYPOTHESIS**

The following hypotheses were formulated and tested in the present study

“Various socio-economic factors of investors have no significant influence on various investment factors”.

## **RESEARCH METHODOLOGY**

**Type of Research:** Based on the objectives of the study, the research is exploratory and conclusive in nature.

**Nature of Data:** The current study based on both primary as well as secondary data.

**Tools for Data Collection:** The primary data was collected through structured interview schedule. The officials of Security Exchange Board of India (SEBI) and various regional stock exchanges have been consulted to gather information for constructing the schedules. The secondary data was collected from the published and unpublished records, annual reports of SEBI and NSE web sites, manuals, bulletins, booklets, journals, newspapers, magazines, etc.,

**Pilot Study:** Prior to final data collection, the researcher was conducted a pilot study from 50 sample respondents for pre- testing the interview schedule. After the collection of sample data, the researcher scrutinized the questions given in the interview schedule for consistency, reliability and validity. The researcher also tested the consistency of the statements to know the strong views of the respondents on factors influencing investment.

**Selection of the Sample:** The present study stratified random sampling technique was used for sample selection. By using deliberate sampling or judgment sampling method the state of Tamilnadu and Virudhunagar district was selected as sample state and district. Next stage the revenue divisions of this district were selected as sample revenue divisions particularly Aruppukkottai and Sivakasi in Virudhunagar district. In Virudhunagar district comprise more than 50 active stock and commodity broking institutions. Out of which top 10 active stock broking institutions were selected based on its brokerage market share. In contrast, stratified random sampling allows us to stratifying the population by a criterion (in this case, the brokerage market share), then choose random sample or systematic sample from each strata.

For this purpose, list of active trading members was collected from selected commodity broking institutions. From branches of these ten institutions in the selected revenue divisions, 50 active investors who have been trading for the more than one year were picked up purposively. Based on availability and accessibility, only 500 investors were found to be the sample size. These selected respondents were further stratified into several sub-groups (strata) viz. age, gender, marital status, educational level, occupation, family size, number of earning members in the family, monthly family income, type of investor, category of investor and type of market operated.

### **Factors Influence the Investor to Invest in Commodity Market**

The reasons for selecting the commodity market are treated as factors influencing the choice of investment. In the present study considers many factors which have been collected from previous studies.

### **Reliability Analysis**

In order to fulfill the main objective of the study, a questionnaire was specifically designed to measure and evaluate factors that affect the investors' decision and also their perception on commodity market to invest. The reliability of the information collected from the respondents was assessed by using Cronbach's Alpha. The Cronbach's alpha allows measuring the reliability of the different categories through measures the average correlation among the observed variables. It also estimates of how much variation in scores of different variables is attributable to chance or random errors. As a general rule, a coefficient greater than or equal to 0.5 is considered acceptable and a good indication of construct reliability. It was also used to check the internal consistency. In this present study researcher underwent the reliability analysis in accordance with the extracted some factors in the questionnaire and also estimated internal consistency of the scores with the help of SPSS. In this study, the Cronbach's alpha yielded acceptable ranges of reliability coefficients and it tells the consistency of the questionnaire. The result obtained from 500 respondents had been thoroughly analyzed and the outputs of the results had been clearly explained in this section.

The sampling adequacy was measured by Kaiser-Mayer- Olkin (KMO) test. The KMO measure of sampling adequacy was computed to determine the suitability of using factor analysis. It certifies whether data are suitable to perform factor analysis. The value of KMO varies from 0 to 1 and high values (close to 1.0) generally indicate that a factor analysis

may be useful with the data. The scale on investors' opinion towards commodity market had the alpha (0.724). The result of KMO measure is presented in Table 1.

**TABLE 1**

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.724
	Approx. Chi-Square	675.227
Bartlett's Test of Sphericity	df	124
	Sig.	.000

The value of 0.724 obtained was indicative of more than moderate category. Therefore, sampling was considered satisfactory and appropriate for further analysis. The value of Chi-Square statistics obtained was 675.227 and is considered highly significant. Taking all these factors altogether, this instrument is highly reliable in measuring investors' opinion on trading/ investment in commodity market especially Virudhunagar Districts and the related components. Hence factor Analysis can be carried out on the responses collected from the Respondents.

**Rotation Sums of Squared Loadings**

In order to determine the factors influencing the investors when take investment decision in commodity market. A factor analysis was carried out by using the exploratory factors analysis method). The main aim for using factor analysis method was to reduce the data and to observe relevant element of data.

**Table 2 Total Variance Explained**

	Component Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% Variance	% of Cumulative	Total	% Variance	% of Cumulative
1	3.087	10.864	10.864	4.087	14.938	14.938
2	2.970	8.734	19.598	3.970	13.027	27.965
3	2.908	8.719	28.317	3.908	12.549	40.514
4	2.832	7.578	35.895	3.832	10.115	50.629
5	1.120	6.389	42.284	3.120	9.318	59.947
6	1.011	5.181	47.465	2.911	8.572	68.519
7	0.998	4.846	52.311			
8	0.994	4.114	56.425			
9	0.977	3.022	59.447			
10	0.957	2.010	61.457			
11	0.954	1.968	63.425			
12	0.951	1.941	65.366			
13	0.950	1.801	67.167			
14	0.948	1.699	68.866			
15	0.946	1.354	70.220			
16	0.944	1.295	71.515			

17	0.940	1.271	72.786
18	0.937	1.246	74.032
19	0.935	1.197	75.229
20	0.928	1.182	76.411
21	0.925	1.178	77.589
22	0.920	1.166	78.755
23	0.864	1.151	79.906
24	0.851	1.138	81.044
25	0.843	1.121	82.165
26	0.840	1.002	83.167
27	0.834	.984	84.151
28	0.831	.961	85.112
29	0.823	.951	86.063
30	0.812	.910	87.973
31	0.791	.867	87.840
32	0.783	.791	88.631
33	0.728	.765	89.396
34	0.710	.747	90.143
35	0.708	.695	90.838
36	0.701	.659	91.497
37	0.691	.588	92.085
38	0.689	.545	92.630
39	0.676	.511	93.141
40	0.662	.510	93.651
41	0.646	.505	94.156
42	0.588	.501	94.657
43	0.581	.499	95.156
44	0.579	.487	95.643
45	0.562	.475	96.118
46	0.551	.471	96.589
47	0.537	.469	97.058
48	0.482	.462	97.520
49	0.438	.459	97.979
50	0.420	.452	98.431
51	0.383	.449	98.880
52	0.364	.428	99.308
53	0.298	.394	99.702
54	0.257	.298	100.000

Source: Computed from collected primary data

Extraction Method: Principal Component Analysis.

There are 54 variables in the questionnaire. These 54 variables were factorized with Varimax Rotation to interpret and to determine which of the variables related to their group. The result shows that out of 54 variables 6 variables explained over 68.519of the total variances. The Kaiser criterion has been applied to retain the measure with Eigen value greater than one. This means unless a measure had at least as much as the equivalent to one original variable, it is dropped. The result shows that 68.519%, of the total variance is represented by the information contained in the factor matrix of the 6 factors. The variance percentage is more

than 50%, therefore it is sufficient to say that variables are somehow related to each other. Table 2 shows the derived factors represent the different element of investment behaviour which forms the underlying factors from the original 5 point scale of 54 statements.

**Table 3 Rotated Component Matrix For Factor Influencing The Individual Investment Decisions**

Factors	Component					
	1	2	3	4	5	6
Income increased significantly	.82					
	3					
Intension to get rich quickly	.79					
	2					
Investments portfolio diversification	.71					
	4					
Effect of surplus earnings on investment decisions	.69					
	4					
Very less Initial investment required	.68					
	7					
Safety of margin	.66					
	2					
Price of commodity	.55					
	9					
Market performance		.81				
		8				
Less uncertainty		.80				
		7				
Commodity market is less volatile than equity market		.79				
		8				
Commodity market is less speculative than equity market		.77				
		4				
Volatility is less compared to that of equity market		.75				
		9				
Losses are limited		.71				
		6				
Affordable brokering charges		.68				
		8				
Varity of Commodities Traded		.67				
		9				
Commodity Lot size		.67				
		1				
Commodity lot price		.66				
		8				
Operation are very transparency		.64				
		3				
Services are very personalized		.63				
		7				
Efficient clearing houses		.58				
		6				
Demand of many commodities shows rising trend in worldwide			.74			
			5			
Growing presence of financial investors in commodity market			.72			
			5			
Bankers reduced interest rate for savings			.68			
			4			
Government reduced interest rate for investments			.67			

	6	
Contracts decided independently	.65	
	1	
Flexible maturity period	.63	
	8	
Risk is minimum compared to that of equity market	.58	
	1	
Reasonable risk and disclosed clearly	.57	
	9	
Knowledge about commodity	.84	
	7	
High return on investment	.79	
	9	
Earnings are more than that of equity market	.76	
	1	
Easy available loans for investment	.74	
	3	
Easy mode of payment	.69	
	1	
No threat form fly by night activities	.65	
	5	
Past experiences in this market	.57	
	4	
Easy transfer to any place	.56	
	9	
Present Economic Indicators	.87	
	4	
Recent Price Fluctuation	.85	
	2	
Development in Stock Index	.83	
	7	
Role of Multi Commodity Exchange of India (MCX)	.79	
	5	
National Commodity and Derivatives Exchange Limited (NCDEX)	.78	
	2	
National Multi Commodity Exchange of India Ltd. (NMCE)	.74	
	9	
Availabilities of best investment options	.71	
	8	
On time sale of contracts	.65	
	8	
Intrinsic Value	.61	
	1	
Hedging method	.58	
	6	
Timely benefits	.54	
	4	
Statement of Government and market experts	.773	
Influenced by experts' and other investors	.704	
Availability of information recording in commodity market	.698	
Brokers' advice and media effect	.599	
Less security evidence is required	.578	
Acceptable terms and conditions	.569	
Procedures are very simplify and no legal hassles	.557	

Source: Computed from primary data

Extraction Method: Principal Component Analysis

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Table 3 shows the rotated component matrix of all the factors influencing individual investment decisions in commodity market. The rotated matrix indicates both the correlation coefficient and the regression weights. The name of the factor statement and factor loading with communalities has been summarized in Table 3. Factor loading represents a correlation between an original variable and its factors. Further the 6 factors that defined these characteristics have been assigned suitable names according to the variables loaded on each factor. These 6 factors are surplus earnings, market prospect and dynamics, investment avenues risks, investors' over confidence and expectation, economic indicators and investment advisors recommendation. The Table 3 shown communalities and explains each variable' amount of variance that is accounted by the factors taken together. Large communalities indicate that a large amount of the variance in a variable has been extracted by the factor solution.

First factor consists of seven variables explaining 14.938% of the total variance. Variables composing the factor contain the effect of income on investors' decision making. Highest contribution to the factor is made by the F54 (factor weight: 0.823) variable stating that "Income increased significantly." Hence, it is labeled as "Surplus Earnings". This is the most affected factor that affects the investor in their investment decision.

The rotated matrix has revealed that respondents have perceived this factor to be second important with the highest explained variance of 13.027%. Out of 54 statements considered for the study this factor has covered 13 statements. The factor has been named as Market Prospect and Dynamics, because item 'Market performance' loaded highest with factor loading of .818.

Factor 3 loaded highest on item 'Demand of many commodities shows rising trend in worldwide' with factor loading of 0.745, so it is labeled as "Investment Avenues Risks". The rotated matrix has revealed that respondents have perceived this factor to be most important with the highest explained variance of 12.549%. This factor has covered 8 statements out of 54 statements considered for the study. The fourth factor account for 10.115% of the variance, with loading of eight statements. This factor has loaded highest on item 'Knowledge about commodity' with factor loading of 0.847, so it is labeled as "Investors' Over Confidence and Expectation". The fifth factor account for 9.318% of the variance. The factor loaded 11 statements of which the first statement "Present Economic Indicators" loading of 0.874, so it is labeled as "Economic Indicators". The last i.e., sixth factor account

for 8.572% of the variance. This factor is covered seven statements. This factor has loaded highest on item 'Statement of Government and market experts' with factor loading of .773, so it is labeled as "Investment Advisors Recommendation".

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