A STUDY ON INVESTORS' BEHAVIOUR TOWARDS GOLD EXCHANGE TRADED FUNDS IN INDIAN STOCK MARKET WITH SPECIAL REFERENCE TO TAMIL NADU

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ABSTRACT *Gold is always considered as one of the best investment alternatives available with common Indian investor. Indians consider the investment in gold as a traditional method of investment. As a world's top consumer of gold, India accounts for 20% of world gold demand. As the importance of gold investment is increased due to extreme unpredictable change in the financial markets, economic uncertainty and fears that national currencies will lose their value etc, force the investment in gold. It is mainly because gold is always considered as the best means to hedge against market volatility. As its importance is increased in the investment arena, now a days gold is measured as an equivalent to investment opportunities in the mainstream of financial markets.*

INTRODUCTION

An investor has numerous investment options to choose, depending on his risk profile and expectations of returns. As such, different investment options represent a different risk-return trade off. The low risk investments are those that offer assured, but lower returns, where as the high risk investments provide the potential to earn greater returns. Hence, an investor's risk tolerance plays a vital role in choosing the most suitable investment. Various investment options are available such as bank deposits, investment on commodities like gold and silver, post office savings schemes, public provident fund, company fixed deposits and stock market options like bonds and debentures, mutual funds and equity shares of the various types of investment options, gold happens to be one of the best options to be included in the portfolio for diversifications of risk. Gold is always considered as one of the best investment alternatives available with common Indian investor. Indians consider the investment in gold as a traditional method of investment. As a world's top consumer of gold, India accounts for 20% of world gold demand. If we consider the price growth of gold since 2001, it has risen by as much as 450 percent. As the importance of gold investment is increased due to extreme unpredictable change in the financial markets, economic uncertainty and fears that national currencies will lose their value etc, force the investment in gold. It is mainly because gold is always considered as the best means to hedge against market volatility. As its importance is increased in the investment arena, now a days gold is measured as an equivalent to investment opportunities in the mainstream of financial markets.

Gold ETF is an open ended exchange traded funds, listed in the stock exchange, available for trading with an intention of offering to investors a means of participating in the gold bullion market without the necessity of taking physical delivery of gold. However, the performance of the scheme may differ from that of the domestic prices of gold due to the expenses or other related factors. All gold bullion held in the scheme is an allocated account with the custodian which shall have the purity of 99.5%. A demat account and registration with the broker (member of NSE/BSE) are mandatory for the investors who are willing to invest in Gold ETFs.

STATEMENT OF THE PROBLEM

There is a range of charges, such as management and advisory fees, marketing and distribution expenses, custodian charges and other operational expenses. The expense ratio of Gold ETFs is around 1%. Apart from the charges, tracking error also brings down the returns of Gold ETF's to a small extent.

Another drawback is that sometime GETFs are illiquid, which imparts the buying and selling flexibility of these ETFs. Further Gold ETFs require demat account and the conversion option is possible only if the investors hold 1000 units (1kg) gold of GETFs.

OBJECTIVES OF THE STUDY

The following are the objectives of the study

To study investors' behaviour towards Gold Exchange Traded Funds.

To study the relationship between socio-economic profile and Behaviour of Gold Exchange Traded Funds investors.

RESEARCH METHODOLOGY

The research methodology includes nature of the study, nature of the data, data collection instrument, sample size determination, sampling procedure, hypotheses, period of the study, area of the study and framework of analysis. The research design applied for this study is analytical and descriptive in nature.

Nature of the Data

Both primary and secondary data were used in this study. The primary data were collected from investors of GETFs in all the 10 city corporations of Tamil Nadu. The details regarding socio-economic profile of the investors and investors' behaviour towards GETFs were collected by using a well structured interview schedule.

The secondary data were collected from reports published by the Gold Exchange Traded Funds, SEBI and association of Mutual Funds in India. The secondary data were also collected from journals, magazines, periodicals and dailies.

Data Collection Instrument

The questions in the interview schedule were designed pertaining to the statement of the problem and objectives of the study. The variables identified from review of literature were taken into account while drafting the interview Schedule. The opinion from a panel of members comprising of experts in the field of stock market, security analysis, portfolio management, statistics, psychology, economics and commerce was sought for at every stage of designing the final interview schedule.

Sample Size Determination

The following formula is applied to determine the optimum sample size.

$$n = \frac{Z^2 a/2 . p . q}{e^2}$$

Where,

e= 0.02 (since the estimate should be within 2% of true value)

Za/2= 1.96 (as per table of area under normal curve for the given confidence level of 95%)

P= 0.05 (It is calculated on the basis of result of a pilot study)

$$n = \frac{(1.96)^2 (0.05)(1-0.05)}{(0.02)^2}$$

Sample Size (n) = 456

Sampling Procedure

The Gold Exchange Traded Funds investors of Tamilnadu represent the population for the study. The sample respondents from GETFs agencies of city corporations have been selected by adopting probability sampling method.

PERIOD OF THE STUDY

The period of the study was confined from 2012 to 2014. With a view of gaining insight into gold exchange traded funds, a detailed study was conducted. The review of literature and conceptual frame work of the study took six months duration. It tooks six months of preparation for interview schedule and conducting pilot study. The collection of primary data from the investors of GETFs and collection of secondary data from Gold Exchange Traded Funds took one year of time. The analysis and interpretation of the data took another six months. The last six months period was utilised for rough drafting and finalizing the form of thesis. As far as the performance evaluation of gold exchange traded funds is concerned, the period of the study was covered from 1st April 2009 to 31st March 2014.

LIMITATIONS OF THE STUDY

The study is confined to Gold Exchange Traded Funds (GETFs) only. The study is excluded from other gold investment avenues.

The independent variables included in this study are restricted to select variables only.

INVESTORS' BEHAVIOUR TOWARDS GETFs

To analyse the investors' behaviour towards gold exchange traded funds, factor analysis, cluster analysis, discriminant analysis and chi-square test and correlation analysis are applied.

Factor Analysis

The factor analysis tries to identify and define the underlying dimensions (factors) in the original variables. Here 12 variables are identified to study the investors' behaviour towards gold exchange traded funds. The variables are stated in the form of statements to collect opinion from GETFs investors. They are asked to give their opinion for all the 12 statements in the Likert's five point scale with the alternate options such as strongly disagree, disagree, neither agree nor disagree, agree and strongly agree.

All the statements are loaded on the three factors. The results so obtained have been given in the following table separately along with factor loadings.

Table 1: Factors and Total Variance

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.479	37.325	37.329	3.316	26.135	26.135
2	1.289	10.746	48.070	2.174	18.120	44.255
3	1,218	10.149	58. 220	1.676	13.965	58.220

(Source: Primary Data)

Table 1 reveals that among the three factors, the first factor which accounts for 26.135 percent of variance is the prima criteria considered to study the investors' behaviour towards GETFs. The second and third factors which account for 18.120 and 13.965 percent respectively. The cumulative variance of the all the three factors is 58.220 percent.

Cluster Analysis

The investors' behaviour towards GETFs can be classified into three categories based on choice criteria using the cluster analysis. They are classified into three segments because the difference between the co-efficient is significant only on three cases on the hierarchical cluster. For the purpose of classification of investors K-means cluster is applied.

Table 2: Final Cluster Centers

Factors	Cluster		
	1	2	3
Investment Objectives (Factor-1)	3.95	2.15	4.07
Investment Decision (Factor-2)	3.74	2.47	3.79
Investment Safety (Factor-3)	3.18	2.81	4.33
Total	10.87	7.43	12.19
Average	3.62	2.47	4.06
Rank	II	III	I

(Source: Primary Data)

The final cluster centers table 2 shows the mean values for the three clusters which reflect the attributes of each cluster. The high mean value for the first cluster, second cluster and third cluster is 3.95, 2.81, and 4.33 respectively. The average score of the first cluster is 3.62 with second rank, second cluster is 2.47 with third rank and third cluster is 4.06 with first rank. This means that the first cluster

respondents have medium behaviour, second cluster respondents have low behaviour and third cluster respondents have good behaviour towards GETFs.

Table 3: Number of Cases in Each Cluster

Cluster	Respondents	Percentage	Rank
Cluster 1	155	34.4	II
Cluster 2	62	13.8	III
Cluster 3	233	51.8	I
Total	450	100	

(Source: Primary Data)

Table 3 reveals that out of 450 respondents, 233 (51.8%) respondents have good behaviour, 155 (34.4%) respondents have medium behaviour and 62 (13.8%) respondents have low behaviour towards GETFs. It is important to be noted that majority of the respondents (51.8%) have well behaved towards Gold Exchange Traded Funds (GETFs).

Chi-Square Test

Chi-square values for socio- economic variables and investors' behaviour of gold exchange traded funds are given in the following table 4. To study the significant association between socio- economic variables and investors' behaviour towards gold exchange traded funds, the following 30 socio- economic variables are considered.

Table 4: Association between Socio- economic Variables and Investors Behaviour

S.No	Socio- economic Variables	Chi-Square Value	Significant Value	Significant or not
1	Place of Residence	1.738	0.784	Not Significant
2	Gender	12.899	0.002	Significant
3	Age	35.642	0.000	Significant
4	Marital Status	4.020	0.403	Not Significant
5	Educational Qualification	38.433	0.000	Significant
6	Occupation	1.632	0.601	Not Significant
7	Annual Income	22.254	0.001	Significant
8	Monthly Savings	55.542	0.000	Significant
9	Type of Family	11.780	0.003	Significant
10	Number of Dependants	5.537	0.477	Not Significant
11	Financial Advisor (s)	12.284	0.002	Significant
12	Savings Objective	27.466	0.017	Significant
13	GETFs Investment Objective	17.755	0.023	Significant
14	Gold Investment Asset Class	16.121	0.041	Significant
15	Preferred Mode of Investment in GETFs	0.150	0.928	Not Significant
16	Preferred Plan	83.115	0.000	Significant
17	Bases for Selection of GETFs	18.527	0.294	Not Significant
18	Portion of investment in GETFs	39.599	0.000	Significant
19	Time of investment	14.793	0.022	Significant
20	Investment Frequency	13.957	0.175	Not Significant
21	Main Source of Investment Advice	29.331	0.000	Significant
22	Guiding Factors for Investment Decision	35.109	0.000	Significant
23	Reasons for Investment in GETFs	29.974	0.008	Significant
24	Increased Amount of Investment in GETFs than Previous Years	15.826	0.000	Significant
25	Reports Analysis	18.904	0.001	Significant
26	Investment made in GETFs	53.409	0.001	Significant
27	Sources of Information for Performance Analysis	42.474	0.000	Significant
28	Risk Perceived by the Investors	11.709	0.764	Not Significant
29	Preferred Level of Risk by the Investors	43.590	0.000	Significant
30	Preference to Buy Schemes on Special Occasions	16.976	0.009	Significant

(Source: Primary Data)

From table 4 it is observed that out of 30 socio- economic variables 22 variables such as gender, age, educational qualification, annual income, monthly savings, type of family, financial advisors, savings objective, investment objective towards GETFs, gold investment asset class, preferred investment plan, portion of investment amount in GETFs, time of investment, main source of investment advice,

guiding factors for investment decision, reasons for investment in GETFs, increased amount of investment in GETFs than previous years, report analysis, investment made in GETFs, sources of information for performance analysis, preferred level of risk by the investors and preference to buy schemes on special occasions have significant association with investors' behaviour. The remaining eight variables namely, place of residence, marital status, occupation, number of dependants, preferred mode of investment in GETFs, bases for selection of GETFs, investment frequency and risk perception by the investors do not have significant association with investors' behaviour.

FINDINGS

It is found from the factor analysis that all the 12 statements are loaded on only three factors namely investment objectives, investment decision and investment safety. Among the three factors, the first factor which accounts for 26.135 percent of variance is the prima criteria considered to study the investors' behaviour towards GETFs. The second and third factors which account for 18.120 and 13.965 respectively. The cumulative variance of all the three factors is 58.220 percent.

It is learnt from the cluster analysis that out of 450 respondents, 233 (51.8%) respondents have good behaviour, 155 (34.4%) respondents have medium behaviour and 62 (13.8%) respondents have low behaviour towards GETFs. It is observed that majority of the respondents (51.8%) have behaved well towards GETFs.

It is learnt from the Chi–square analysis that out of 30 socio- economic variables, 22 variables were significant at 1% level variables such as gender, age, educational qualification, annual income, monthly savings, type of family, financial advisors, savings objective, investment objective, gold investment asset class, preferred invest-

ment plan, portion of investment amount in GETFs, time of investment, main source of investment advice, guiding factors for investment decision, reasons for investment in GETFs, increased amount of investment in GETFs than previous years, report analysis, investment made in GETFs, sources of information for performance analysis, preferred level of risk by the investors and preference to buy schemes on special occasions have significant association with investors' behaviour. The remaining eight variables namely, place of residence, marital status, occupation, number of dependents, preferred mode of investment in GETFs, bases for selection of GETFs, investment frequency and risk perception by the investors do not have significant association with investors' behaviour.

CONCLUSION

The investors of gold exchange traded funds to consider the investment influencing factors such as government policies towards GETFs, opportunity for wealth creation, funds reputation, grievances handling procedures, different choice of schemes, net asset values and fund loads. They select suitable investment schemes with regard to their annual income, monthly savings, savings objective, time of investment, investment objective, and reasons for investment in GETFs and level of risk. The GETFs investors change the investment frequency, preferred level of risk and sources of information for performance analysis to overcome the problems with regard to making investment in GETFs. Hence, these factors enable the investors to make right decisions and to overcome the problems with regard to making investment in gold exchange traded funds,

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