ICSSR Sponsored - International Conference on Need of Digital Transition and CSR For Innovative Sustenance in the 2023 Economy
© 2023 IJSRST | Volume 10 | Issue 11 | Print ISSN: 2395-6011 | Online ISSN: 2395-602X
International Journal of Scientific Research in Science and Technology

Economic Factors Influencing Gold ETF Investments in India

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ABSTRACT

In India, gold ETFs were launched mainly with objective to increase the liquidity for the better market efficiency. But, though, traditionally, Indians love to buy gold and they want to possess it, even after assuring the benefits of Gold ETF Investments over the other Investment avenues, there is the lack of pooling of funds towards this sector. In fact, they hardly go for ETFs which is just a piece of paper for them. Conventional Economic theories and its survey reports do not clearly explain the reasons behind this phenomenon. The proposal hence is made to explain the economic attributes that influences Gold ETF Investments in Indian Investors. The researcher made an attempt to find out the demographical composition of the samples and to analyze their quantum of investment towards Gold exchange Traded Funds Investment and the data were analyzed using Exploratory Factor Analysis with the help of SPSS.

Keywords: Exchange Traded Funds, Gold, Investments, E-gold, Economic, Equity.

I. INTRODUCTION

Gold ETFs, also known as paper gold, are open ended mutual funds that help investors invest their money in gold which is 99.5% pure. These are listed on the stock exchanges and investors are assigned units of the mutual fund where each unit often represents one gram of gold. There are ETFs where each unit can represent less than one gram of gold as well. Being passively managed funds, they simply follow the price of gold in the market and so their returns match the returns of gold investor would buy off-line. An investor can buy and sell them on the stock exchange. A gold exchange traded fund is commodity ETF that consists of only one principle asset, Gold. However, the fund itself consists of gold derivative contracts that are backed by gold. Investor does not actually own any gold. Even when the investor redeems gold ETF, they do not receive the precious metal in any form. Instead, an investor receives the cash equivalent. Gold ETFs provided investors a means of participating in the gold bullion market without the necessity of taking physical delivery of gold, and to buy and sell that participation through the trading of units on stock exchange. Gold ETF would be a passive investment; so, when gold prices move up, the ETF appreciates and when gold prices move down, the ETF loses value. Gold ETF tracks the performance of Gold Bullion.

But Indian Investors make considerable investments in equity derivatives or physical Gold rather than Gold ETF's even under the current technologically changing scenario. In fact, in spite of sky-rocketing prices of the yellow metal, from Rs. 4,395 per 10 gram in 2000 to more than Rs. 24,000 in 2018, its demand has not been

seriously affected in Kerala. This shows that people in Kerala are opting for gold even when the prices are high considering it as a good investment option. It seems that the trend will continue in future too.

Hence it is found that, even after assuring the benefits of Gold ETF Investments over the other investment avenues, there is the lack of pooling of funds towards this sector. Conventional Economic theories and their survey reports do not clearly explain the reasons behind this phenomenon.Under these circumstances a project study taking Kerala as the Population and its districts from north, central and southern region as the sample to perform a detailed analysis of the Economic attributes that influences Gold ETF Investments in Indian Investors would be justified.

II. STATEMENT OF THE PROBLEM

In India, Gold ETFs were launched mainly with the objective of increasing the liquidity for the better market efficiency. But, though, traditionally, Indians love to buy gold and they want to possess it, even after assuring the benefits of Gold ETF Investments over the other Investment avenues, there is the lack of pooling of funds towards this sector. In fact, they hardly go for ETFs which is just a piece of paper for them. Conventional Economic theories and its survey reports do not clearly explain the reasons behind this phenomenon. The proposal hence is made to explain the Economic attributes that influences Gold ETF Investments in Indian Investors.

III. OBJECTIVES OF THE STUDY

To explore the Economic factors influencing Gold Exchange Traded Funds Investment decisions in Kerala.

IV. RESEARCH DESIGN

According to the population enumeration of the census of India, the population of investors in each state stood at a measureable percentage. In this connection, it may be mentioned that the upcoming toll towards digital era and online banking has given impetus for the growth of investors, even in the commodity derivatives market including Gold ETF. Hence, the scope of the present study has been confined to these Gold ETF investors alone. A descriptive research design were structured and implemented during research. The research samples were further confined to micro-level by the researcher's concentration on only individual Gold ETF investors in Kerala. Therefore, it comprises 395 samples (estimated) of individual Gold ETF investors which are distributed over the three zones of Kerala. The method of sampling adopted here is Snowball Sampling and the sample size is determined on the basis of a Pilot Survey (taking 100 Gold ETF investors).

V. EXPLORATORY FACTOR ANALYSIS- ECONOMIC FACTORS

Here, the researcher tries to fulfill the research objective in exploring the Economic factors influencing Gold Exchange Traded Funds Investments in Kerala using Exploratory Factor Analysis method for reducing data. Reliability/Validity/Consistency checks are also conducted as a prelude to Factor Analysis for ensuring the sufficiency and strength of data.

5.1 Reliability Check

As a prelude to Factor Analysis, Reliability Check was conducted. A value equal to or higher than 0.8 is acceptable.In this study, a Cronbach'svalue of 0.884 was obtained. Table 5.1 generated below implies the value of Cronbach's Alpha if any of the item gets deleted from scale.

Reliability Statistics

Cronbach's Alpha	N of Items
.884	15

Table 5.1- Reliability Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Cannot see gold	69.547	2.827	.556	.876
Possibility of decrease in value	69.549	2.807	.631	.874
Do not understand Stock market	69.577	2.585	.594	.876
Unaware of stock market conditions	69.554	2.877	.441	.881
Possiblity of theft	69.532	3.011	.359	.883
Resale value/Price issue	69.575	2.484	.777	.864
Physical gold purchase value decreases	69.585	2.365	.877	.858
Physical Gold resale value decreases	69.580	2.503	.753	.866
Economic Stability	69.549	2.817	.547	.877
Increase in income level	69.547	2.908	.457	.880
Income level and Maturity date	69.537	3.107	.112	.889
Higher Returns(15-20%)	69.559	2.790	.504	.878
Beneficial Investment	69.567	2.657	.581	.875
Financial Security	69.552	2.806	.598	.875
Financial Market Analysis	69.527	3.138	.129	.888

Table 5.2- Item-Total Statistics

5.2 Factor Analysis and Reduction of Data

Factor analysis is based on the correlation matrix of the variables involved, and correlations usually need a large sample size before they stabilize. Here, a total of 395 samples were used for analysis.There are also many different types of rotations that can be done after the initial extraction of factors, including orthogonal rotations, such as varimax and equimax, which impose the restriction that the factors cannot be correlated, and oblique

rotations, such as promax, which allow the factors to be correlated with one another. Here, the extraction method used is Principal Component Analysis and Rotation used is Varimax with Kaiser Normalization.

5.2.1 KMO and Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.653
Bartlett's Test of Sphericity	Approx. Chi-Square	4780.250
	df	105
	Sig.	.000

Table 5.3- Kaiser Meyer Olkin Measure and Bartlett's Test of Sphericity

Kaiser-Meyer – Olkin Measure of Sampling Adequacy- This measure varies between 0 and 1, and values closer to 1 are better. A value of 0.653 were obtained.

Bartlett's Test ofSphericity- This tests the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is a matrix in which all of the diagonal elements are one and all off diagonal elements are zero. Taken together, these tests provide a minimum standard which should be passed before a factor analysis should be conducted.

5.2.2 Communalities of each variable's variance

Communalities

	Initial	Extraction
Cannot see gold	1.000	.739
Possibility of decrease in value	1.000	.839
Do not understand Stock market	1.000	.559
Unaware of stock market conditions	1.000	.763
Possiblity of theft	1.000	.414
Resale value/Price issue	1.000	.707
Physical gold purchase value decreases	1.000	.830
Physical Gold resale value decreases	1.000	.678
Economic Stability	1.000	.694
Increase in income level	1.000	.701
Income level and Maturity date	1.000	.113
Higher Returns(15-20%)	1.000	.781
Beneficial Investment	1.000	.669
Financial Security	1.000	.547
Financial Market Analysis	1.000	.293

Extraction Method: Principal Component Analysis.

Table 5.4- Communalities of each variable's variance

Communalities: This is the proportion of each variable's variance that can be explained by the factors and can be defined as the sum of squared factor loadings for the variables.

Initial: With Principal Component Analysis, the initial values on the diagonal of the correlation matrix are determined by the squared multiple correlation of the variable with the other variables.For example: On regressing items "Possibility of Decrease in Value" through "Financial Market Analysis" on "Cannot see Gold", the squared multiple correlation coefficient would be 1.00

Extraction: The values in this column indicate the proportion of each variable's variance that can be explained by the retained factors. Here all the variables are with high values and are well represented in the common factor space.

5.2.3 Total variance extracted under Principal Component Analysis

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.895	39.301	39.301	5.895	39.301	39.301	4.258	28.390	28.390
2	1.995	13.302	52.603	1.995	13.302	52.603	2.777	18.514	46.904
3	1.436	9.573	62.176	1.436	9.573	62.176	2.291	15.273	62.176
4	1.176	7.838	70.014						
5	1.042	6.944	76.958						
6	.959	6.392	83.350						
7	.744	4.961	88.311						
8	.492	3.280	91.591						
9	.372	2.482	94.073						
10	.300	1.999	96.072						
11	.231	1.537	97.609						
12	.183	1.217	98.826						
13	.080	.532	99.359						
14	.074	.493	99.852						
15	.022	.148	100.000						

Extraction Method: Principal Component Analysis.

Table 5.5- Total variance extracted under Principal Component Analysis

Component: The initial number of components is the same as the number of variables used in the Factor Analysis. But not all 15 components will be retained and only first three components are retained.

Initial Eigen Values: Eigen values are the variances of the components. Since Factor Analysis were conducted on the correlation matrix, standardized variables are obtained giving each variable, a variance equal to one, and total variance equal to the fifteen variables used in the analysis.

Total: This column enunciates Eigen values. First component has most variance and hence highest Eigen value. Accordingly, the next component will account for as much as of the left over variance as it can, and so on. Hence each successive component will account for less and less variance.

Percentage of Variance: This column contains the percent of total variance accounted for by each component.

Cumulative Percentage: This column contains the cumulative percentage of variance accounted for by the current and preceding components. Here, the third row shows a value of 62.176. This means that the first three components together account for 62.176% of the total variance.

Extraction Sums of Squared Loadings: The number of rows in this panel of Table 8.5 correspond to the number of components retained. Hence three rows for three retained components are obtained.

Rotation Sums of Squared Loadings: Variance distribution after Varimax rotation is represented in this panel.

5.2.4 Scree Plot

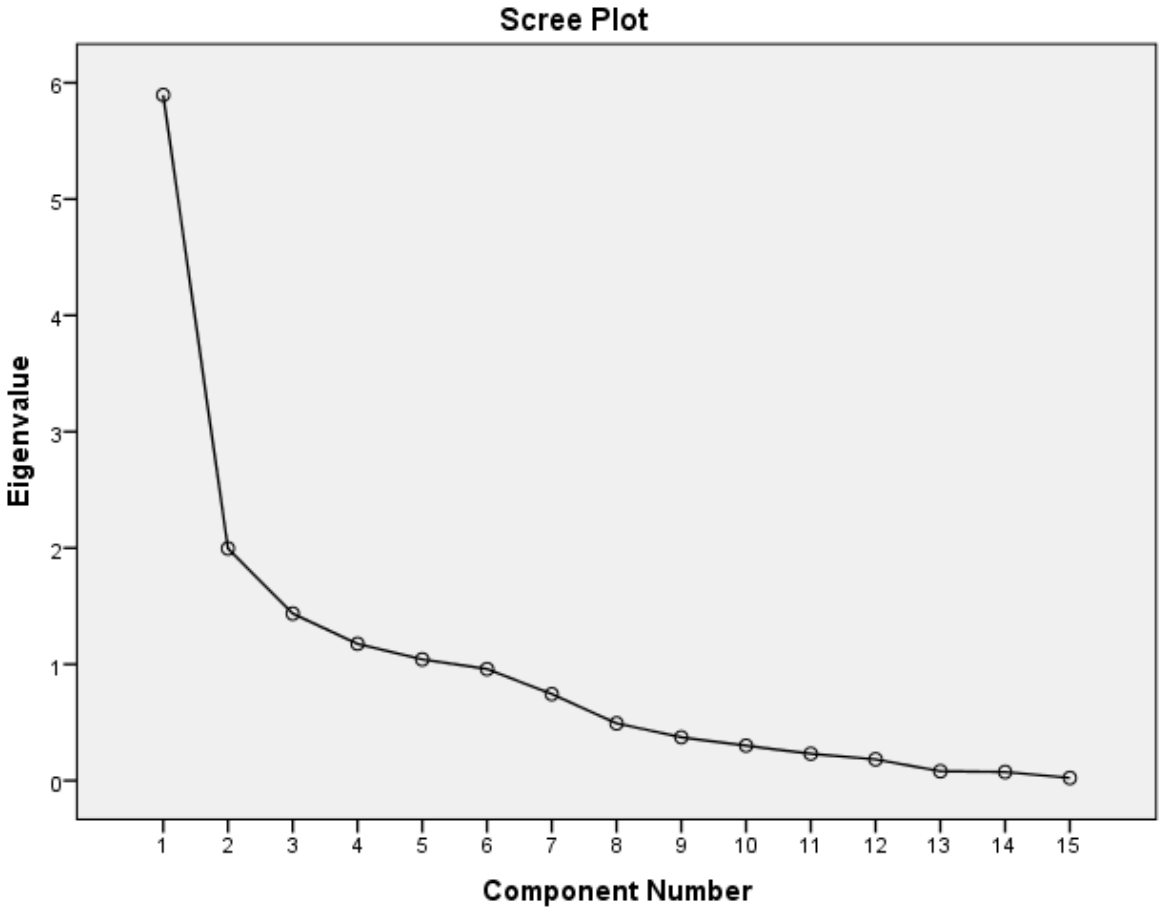

Chart 5.1- Scree Plot

Scree Plot: The Scree Plot graphs the Eigen value against the Component Number. These values are seen in the first two columns of the table immediately above. From third component on, the line is almost flat, meaning the each successive component is accounting for smaller and smaller amounts of total variance.

5.2.5 Rotated Component Matrix

Rotated Component Matrix[a]

	Component		
	1	2	3
Economic Stability	.819		
Increase in income level	.815		
Physical gold purchase value decreases	.691		
Resale value/Price issue	.681		
Physical Gold resale value decreases	.668		
Cannot see gold	.664		
Possiblity of theft	.615		
Financial Security			
Unaware of stock market conditions		.858	
Beneficial Investment		.670	
Do not understand Stock market		.638	
Income level and Maturity date			
Possibility of decrease in value			.784
Higher Returns(15-20%)			.665
Financial Market Analysis			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 5 iterations.

Table 5.7- Rotated Component Matrix

Rotated Component Matrix: This table contains the rotated factor loadings (factor pattern matrix), which represent both how the variables are weighted for each component but also the correlation between the variables and the component. Correlations less than 5.0 or below (whichprobably are not meaningful anyway) are not printed.

Component: The columns under this heading are the rotated components that have been extracted. Evidently, three components were extracted and named according to the items highly loaded into each component.

5.3 Naming of the variable

All the items are labeled and named assuming its dependency on the volatility and fluctuations on Gold Exchange market conditions and Economic Structure of the market and society, thus framing all the items under the common thread “Economic factors”

Factor 1:

The items Economic Stability, Increase in income level, Physical gold purchase value decreases, Resale value/Price issue, Physical Gold resale value decreases, Cannot see gold, Possibility of theft are all concerns

faced an Gold ETF investor while anticipating the worst case scenario if the decision goes haywire. A stock market crash could result the dropping of all market values enunciating the importance of ensuring a stable economy throughout the investment period. Increased return at the end of payback period could only make him a wise investor. The regret over letting go of physical gold investment and turning into virtual market (Gold ETF) would always bother a cautious investor. Hence the condition of decrease in gold purchase value and inability to see the gold physically aggravated by the fear of price issue or resale value met in Gold ETF market would cripple an investor to a greater extend. But a bold investor always looks into the risk of decrease in physical gold resale value and possibility of theft in the case of physical gold prompting him to make the investment in Gold ETF. Therefore all these items could be aptly labeled as "Future Risk".

Factor 2:

The items stated as Unaware of stock market conditions, Beneficial Investment and Do not understand Stock market all points to the level of knowledge and education received by an investor through experience or Awareness programmes organized under SEBI to educate and train an investor thereby protecting him/her from falling into traps and fraudulent practices in the stock market. Therefore these items are labeled as "Improper investor Education".

Factor 3:

Items Possibility of decrease in value and Higher Returns (15-20%) exposes the vulnerability of an investor during investment period. The only criterion which keeps the corpus of investment afloat is the surety of higher returns in the future. Hence these items are loaded into the factor "Expected return".

VI. FINDINGS, SUGGESTIONS AND CONCLUSION

6.1 Findings

The economic factors such as Future Risk, Improper investor education and Expected return were found to influence Gold Exchange Traded Funds Investment decisions in Kerala.

6.2 Suggestion:

The investor should utilize technical fundamental analysis of stock market to make decisions on gold fund investment.Gold fund investment decisions should be made after deeply studying the economic changes in the concerned country.Investor should analyze and assess the financial security of the institution in which he/she is going to make gold fund investment.Gold is a commodity whose value fluctuates in the market than other securities. Hence the volatility of gold funds should be studied.By doing frequent risk return analysis of gold fund an investor can reduce risk in the same.Portfolio of investor can be made defensive by including gold funds during portfolio construction.

VII. CONCLUSION

In India, gold ETFs were launched mainly with objective to increase the liquidity for the better market efficiency. Now it is widely acknowledged that the launch of gold [exchange-traded products] has had a very significant impact on the gold market and is now a key part of it. But Indian Investors make considerable

investments in equity derivatives rather than Gold ETF's even under the current technologically changing scenario. Hence an evaluative record of the behavioral finance attributes that influences their decision making while making investments would be used as a reference to deciding the applicability of conventional financial and economic theories governing investment decisions. A detailed analysis of the Economicattributes that influences Gold ETF Investments in Indian Investors by amassing firsthand information from individual and institutional investors engaged in security trading would result in filling the gaps where surety is not established in determining how far the technology has influenced in the above said phenomenon. The study will be first of its kind in making a thorough analysis of this trend in the context of an emerging economy.

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