An Empirical Study on Behavioral Trend on Derivative Instrument with Reference to Gold Exchange Traded Fund in India

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Abstract

Behavioral finance is a bridge between psychology and the sociology of investment. The action of human trends is unpredictable as the fluctuation of decision-making is not predominant. The fusion of traditional investment with modern ideology and human behavior over those derivatives plays a high role in emotional distribution. This study's prime focus is on the study of elucidating the behavioral trends of investors and to develop standardize measure to determine the gold investment and also analyses the impact factor of age in favoring the behavior decision in investment with secured return through the gold portfolio with a sample of 100 respondents around Chennai city. The statistical tools of correlation test and factor analysis were performed. The concluding observation is that safety is the most prioritized factor in portfolio management the fear of losing principal restricts the investor's behavior to stay in the safe zone.

Keywords: Behavioral trends, Derivatives, Gold Exchange-traded fund, Investment Measure, Psychology.

Introduction

Behavioral finance is the scope that deals with the human pattern of behavioral and their psychological intuition on investment, human neurology has designed to react over every action performed, behavioral finance deals with that part of the brain when it reacts over the investment and put the money earned with many difficulties, it's quite common to trend over defensive mode when it deals with some sensitive area of possibility to not returning with anything. The investor psychology in the gold portfolio and the stock market is much contract over the material investment, as the trend is new in the market quite contrast to the yellow metal since human psychology is highly resistant to innovator concept with fear of failure.

Gold Exchange Traded Funds

Gold Electronic Traded Fund (ETF) is the pooling of gold and stock derivatives with a fusion of traditional investment verse modern investment theories. The gold ETF is a market where the investment was made in gold bullions which are refined gold with a purity of 999.9% and that investment sold in the portfolio market like every shares or stock of a company. The fund was currently managed by the agents of the stock market with the help of a Demat account where the individual users seem to be minimal in the current era, see Table 1.

Table 1: World look on Gold Exchange trade fund					
Region Name	Total AUM (bn)	Holdings (tones)	Flows (tones)	Flows (US$ mn)	Flows (%AUM)
North America	69.0	1,445.1	62.1	3,068.0	4.4
Europe	59.4	1,243.1	7.7	586.1	1.0
Asia	4.0	84.6	3.9	186.6	4.6
Other	1.7	35.0	1.5	71.1	4.3
Total	134.1	2,807.8	75.2	3,911.8	2.9
Source: World Gold Council					

Literature review

Sham Gad 25 Jun 2019 explained that gold is considered a long term investment, gold portfolio investing in gold mines is one of the easiest ways to reach the gold market which has good return with an increase of gold price in global market, gold is a saving agent according to human psychology at the time of risk and uncertainty on recession. Rajarshi Bose 8, March 2019 in his blog on Trade Brains with the title "Is Investing in Gold a good idea in India?" has expressed gold is one of the major sources of investment in middle-class investors that India ranking 2nd in gold investment around the globe, gold act as hedge investment carrying lot more features not restricted with the term physical gold, against equity share gold is one of predominant option which plays safe market in mutual funds. Puja Bhattacharjee 13 October 2017 in the article posted in

CNN has mentioned how gold is treated as a symbol of success to acknowledge the uniqueness of gold treated as best description in games like Olympic, investment in gold is part of customs from generation and always preferable with something as compared because of shine reflection in the metal. SatiaNur Maharani 2016 has stated in his research paper on the title, investor decision cannot be stable as rational or irrational every time, instead, it is two different part which always exists on decision-making process, human investment is based on the emotions, which did not exist in the traditional theories as they always predicted or analyzed about the rational part of investment decision and built their model with that assumption, which is not the only focus of human nature on the investment decision. According to VinodBhatnagar, 2014 in research publication stated that gold is a generalized investment irrespective of the gender of an individual, and also stated that certain factors induce the investors towards the investment in gold, fluctuation in price, status, occasion, and also many factors which determine the ideology of the investment.

Research Gap

The study on behavioral trends is a young concept derived in the market in the recent era the fusion of study between traditional gold investments with modern portfolio market was limited access in an early study which is in the emerging stage of analyzing the behavioral pattern, this study exclusively focused on the behavioral expectancy on the Gold Derivatives in modern investment trends.

Research Methodology

Table 2- Research Methods Adopted	
Research Sampling Data	**Elements**
Design of the study	The research design contain Descriptive, qualitative, investigative and expressive research design
Techniques approached	Convenience method of sampling has been used
Sample components	Electronic Gold (portfolio)
Number of Respondents	100 samples
Measurement Scale	Structured digital questionnaire with five-point Likert scale score
Data Collection method	Questionnaire circulated through E-Mail and physical visit to the respondent's and interviews
Statistical Tools used	Explanatory statistics, Correlation test, factor analysis

Table 2 consists of the research plan adopted in the study and design, techniques, sample, method of data approached for the research work along with information of statistical models used to evaluate the sampling data.

Research Objective

The primary aim of the study is to design the portfolio on gold with the elements focused on the psychological needs of investors by analyzing the behavioral trends and the inputs concerned on the instrument before the investment made, analyzing the wants of the human mind in economic consideration over the gold portfolio.

Objectives of the Study

1. The objective of the study is to elucidate the behavioral trends of investors and to develop standardize measures to determine the gold investment.
2. The study is to analyze the impact factor of age in favoring the behavior decision in investment with secured return through the gold portfolio.

Data Analysis

Table 3: Demographic Profile			
Particular		**Frequency**	**Percent**
Gender	Female samples	54	54.0
	Male samples	46	46.0
	Total samples	100	100.0
Age	18-25	35	35.0
	26-33	32	32.0
	33-40	12	12.0
	40- 48	11	11.0
	above 48	9	9.0
	Total	100	100.0
Educational Qualification	Below Graduation	7	7.0
	Graduation	39	39.0
	Post-Graduation	44	44.0
	others	10	10.0
	Total	100	100.0
Source: Primary Data Analysis			

Interpretation: Table 3 shows that out of the sample of 100 respondents, 46.0% are found out to be male gender and 54.0% are female gender categories. The age factor respondents 35.0%

falls under the age group of 18-25 and 32.0% of respondents falls between the age group 26-33 and 12.0% respondents are from the category of 33-40, and 11% respondents' falls under the category of 40-48 years and 9.0% falls over the age group of 48 and above. The qualification of respondents taken 7.0% fall under the below graduation category, 39.0% falls under graduation and 44% respondents are falling under the post-graduation category and 10% of respondents are fall under others.

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Correlation Test Analysis

Hypothesis for the Study

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H_{01}: There is no relationship between age and favor of investment with secured return- gold exchange traded fund.

Table 4: correlation analysis			
		prefer investments with secured return	Age_
prefer investments with secured return	Pearson Correlation	1	**.107**
	Sig. (1-tailed)		.145
	N	100	100
Age	Pearson Correlation	**.107**	1
	Sig. (1-tailed)	.145	
	N	100	100
H_0status	H_0 Accepted		
*. Significant level of correlation 0.05 (1-tailed).			
**. Significant level of correlation 0.05 (1-tailed).			
Source: Primary Data Analysis			

Interpretation: H_0 There is no relationship between Age and favor of investment with the secured return- gold exchange-traded fund, Table 4. The correlation table reveals that Pearson's coefficient of correlation value for the relationship between age and favor of investment with the secured return- gold exchange-traded fund .107. The sig value .107 is greater than 0.05 hence the null hypothesis is accepted.
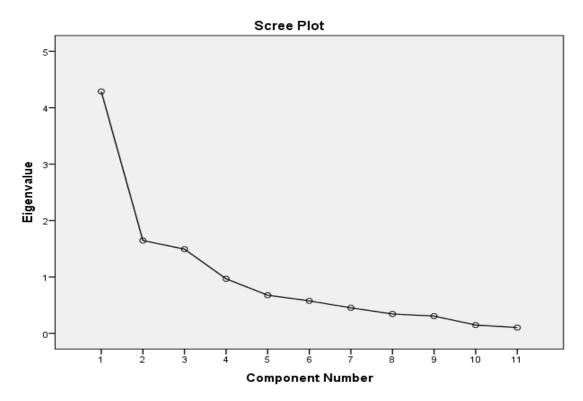
Factor Analysis

Table 5 - KMO and Bartlett's Test		
KMO- Measure of Sampling Adequacy.		.740
Bartlett's Test of Sphericity	Approximate Chi-Sq	553.269
	Different	55
	Significant	.000**
Source: Primary Data Analysis		

The research study has been conducted with KMO and Bartlett's Test. Table 5 shows that the sample adequacy has been measured with a result of 74% accuracy.

Table 6 Total Variance Explained						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	Percent (%) of Variance	Cumulative percent (%)	Total	Percent % of Variance	Cumulative Percent (%)
1	4.288	38.982	38.982	4.288	38.982	38.982
2	1.646	14.962	53.944	1.646	14.962	53.944
3	1.493	13.570	67.514	1.493	13.570	67.514
Source: Primary Data Analysis						

Figure 1

Scree Plot

Interpretation: Table 6 explains the percentage of variance explained in each derived factor elements towards gold exchange-traded funds. For investor's impact towards the gold portfolio in this analysis F1 component is labeled as a Magnificent element of investment, the F2 component is labeled as a Fear element of investment, F3 component is labeled as Behavioral expectancy on investment. All the three factors together explain 67 % of the total variability in the data set; See Figure 1. This leads to three factors components that are adequate to further research.

Table 7 Factor Analysis			
	Magnificent Element of Investment	**Fear Element of Investment**	**Behavioral Expectancy on Investment**
Magnificent Element of investment			
Transparency	**.668**		
High Growth	.541		
Global Market Performance	.530		
Fear Element of Investment			
Uncertain Risk		**.734**	
Fear of Lose in Principal Invested		.618	
Lack of Knowledge on Existence of Gold Portfolio		.603	
Behavioral Expectance on Investment			
Easy liquidity			**.802**
Principal Safety			.760
Regular Income Through Investments			.658
Constructive Performance Of Fund			.607
Minimum Fluctuation In Market			.533
Source: Primary Data Analysis			

Table 6 explains the percentage of variance explained in each derived factor elements towards investors behavioral trend to gold exchange-traded fund the features are classified into three namely Magnificent elements of investment where transparency covered with 66.8% following by components like high growth, global market performance, the second factor fear element of investment were uncertain risk was fearful towards the portfolio with 73.4%. The expectancy on investment request easy liquidity with 80.2%

Findings from the study

Demographic profile: The sample of the study consists of a major population belonging to females gender under age category of 18- 25 with post-graduation degree as the qualification.

Correlation analysis: There is no relationship between Age and favor of investment with the secured return- gold exchange-traded fund. With the null hypothesis, accepted insist in the study that security is treated as a predominant factor more than high return expectancy, the investors

irrespective of age group concentrate on the safety of the speculation in the market. This behavioral trend limits their strategy on taking big steps with fear of losing what they have in hand.

Factor analysis: The investor satisfies with the theme of transparency of the income, growth, global market price in a gold exchange-traded fund, the fear element backlogging to take up the change over from traditional theory, the investor need of assurance in the portfolio with certain more criteria which give hope to take up step towards paper gold, all in which the factor safety of principal amount invested taking over the expectancy with the easy liquidity option. The investor also placed an expectation where the investment of gold ETF was to be involved in constructive use in the global market with surveillance of future scope in check.

Conclusion

The research article concludes that safety is the most prioritized factor in portfolio management the fear of losing principal restrict the investor's behavior to stay in the safe zone, the analysis of investor psychology leads to further expectations carried over towards Exchange trade fund derivatives where the return of expectancy to be tally with other available option in the market with minimum fear of losing. The psychology of investors want the customized derivative in which the expectancy of performance is to get funded into the global market where the future of the market was predicted, the gold bullion investment should have been engaged in the constructive use in the global market such as FDI or FII or any kind of currency which can have a constant check on the scope and the growth of investment can be expected as same as any other global stock in the derivatives market.

Suggestions

The pattern of Gold exchange-traded funds is a growing element in the derivatives market with modern trends without proper illiteracy does invest restricted for the entry of common man; the need for education on E-gold investment is highly suggestive to extend the warm hands to include investors in modern investment trends. The gold ETF engaged them in gold bullion that is a purified form of gold should equally extend the construction in certain other beneficial elements available in the market.

Scope for Future Study

The study can be made on other derivatives available in the market other than the gold ETF. The research can be extended to behavioral trends on bonds and government securities. The current market portfolio and the psychological influence of investors can be analyzed.

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We declare that the submitted paper is original research work, which is not been published or submitted for publication elsewhere.