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A study of factors influencing investor behaviour towards gold as an investment avenue with factor analysis

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ABSTRACT

Gold has been a major investment avenue among investors. Investor behaviour varies on the basis of their needs, benefits return expectations etc towards various investment avenues. Every investment avenue has different pros and cons. Gold has some special benefits as an investment option. It is quite popular traditionally as well as for financial security purposes. In Indian context people used to buy gold in form of jewellery on festivals, marriages etc. Earlier jewellery was considered as the most common form of gold investment but now a days more options are available in the form of Gold investment like Gold Bars, Gold ETFs, SGBs etc. This paper is an attempt to explore various factors which influence the investor behaviour towards Gold investment by factor analysis.

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1. Introduction

Investors preference towards various investment avenues varies according to their perspectives in terms of needs, benefits, returns etc. In Indian culture earlier middle-class investors generally used to invest their money according to the return and risk profiles but gold has been a major investment avenue among middle- and high-class investors because of its unique features. In earlier times people used to invest in Gold in the form of jewellery etc. Purchasing Gold was considered as a symbol of good luck and prosperity on some festivals and wedding etc. People used to preserve their wealth from one generation to another in the form of this precious metal. They consider jewellery as safe and major avenue of investment. But now a days some ore options in form of Gold bars, Gold ETFs, digital gold, SGBs, Gold coins are also available for the investment in Gold. This paper is an attempt to explore various factors which influence the investor behavior towards Gold purchase by factor analysis.

2. Related works

Colin Lawrence [7], in his research work confirm that gold appears to be good portfolio diversifier because Gold has always given high returns over a long period.

Udombaibunsuk [11], in his independent study of Comparison of three money saving- methods found savings in the form of single securities in gold bars yielded higher return rates and risks than any other types of savings.

Aggarwal and Lucey [1] in their work suggested that gold has been a centre of attraction for investors because it held value for long term, It is a form of hedge and easy to carry.

Capie et al. [4], Baur and Lucey [3], suggest that gold is considered as the long term backbone of investment portfolio which is quiet stable avenue for investment. The findings also suggest that gold has served as hedge against fluctuation in the foreign exchange value of the dollar. Further Singh and Nadda [9], in their research work for comparative study of risk and return, suggested that risk involved in other investments is three times more than the risk involved in gold investment.

Arulmurugan [2] worked on the investment behavior of professors towards Gold Investment in Tamil Nadu State, India and concluded that five factors are most important in gold investment Risk Management, Ideal Time for Investment, Conventional Value, Investment Tool and Future Prospects.

According to Sujatha & Kumaresan [10] the gold is very popular among Indians because of its high traditional and cultural value. People used to buy gold as investment and ornaments on some festivals and marriages etc.

Selvi [8] in her research study tried to discuss some studies related to investors attitude towards different investment avenues.

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Alpha reliability = 0.9087
 Standardized alpha = 0.9094

Reliability deleting each item in turn:			
	Alpha	Std. Alpha	r(item, total)
TRV1	0.9033	0.9039	0.5905
TRV2	0.9012	0.9016	0.6446
TRV3	0.9013	0.9016	0.6434
SEC1	0.8982	0.8992	0.7124
SEC2	0.8978	0.8989	0.7162
SEC3	0.8995	0.9005	0.6806
SEC4	0.8984	0.8994	0.7042
SEC5	0.9038	0.9045	0.5803
SEC6	0.8998	0.9002	0.6807
SEC7	0.9016	0.9022	0.6335
HR1	0.9050	0.9055	0.5568
HR2	0.9058	0.9069	0.5266
HR3	0.9082	0.9083	0.4890

Fig. 1. Results of reliability test.

Is the data suitable for Factor Analysis?
 - KMO: The Kaiser, Meyer, Olkin (KMO) measure of sampling adequacy suggests that data seems appropriate for factor analysis (KMO = 0.90).
 - Sphericity: Bartlett's test of sphericity suggests that there is sufficient significant correlation in the data for factor analysis (chisq(91) = 4128.11, p < .001).

Fig. 2. Results of KMO and Bartlett's Test.

She found that due to high safety and returns, investors prefer bank deposits and gold more than other type of investments.

3. Need of the study

Various studies had been done on the purchasing of gold as an investment option but the exploration of the factors which makes gold a real choice of investors is not found abundantly. Not much studies are found in order to explore the factors which affects gold purchasing as an investment. This study tries to explore factors which makes gold a choice for individual investment.

4. Objective of study

To explore the factors which affects the purchasing of gold as an investment with the help of factor analysis.

5. Method of study

The study is based on primary data. The data for this study was collected through questionnaire from Delhi NCR from 493 individual respondents. A well-structured closed ended questionnaire was circulated to 500 respondents. 493 questionnaires were found complete. Convenient sampling was used. We have included 14 items with 3 factors. Sample size is adequate as it is more than the ratio of 1:10 (reference Tinsley and Tinsley (1987), quoted by

Loadings:			
	Factor1	Factor2	Factor3
SEC1	0.83	0.01	-0.03
SEC2	0.87	-0.04	-0.02
SEC3	0.89	-0.08	-0.04
SEC4	0.88	-0.10	0.01
SEC5	0.56	0.11	-0.03
SEC6	0.56	0.12	0.08
SEC7	0.52	0.12	0.08
HR1	-0.04	0.79	0.05
HR2	-0.04	0.79	0.03
HR3	-0.06	0.97	-0.15
HR4	-0.02	0.64	0.09
TRV1	0.03	-0.01	0.74
TRV2	-0.04	-0.08	0.97
TRV3	0.05	0.00	0.77

Fig. 3. Factor loadings.

	Factor1	Factor2	Factor3
Eigen Values	3.92	2.67	2.13
Fig. 4. Eigen values of factors.			
ss loadings	3.92	2.67	2.13
Proportion Var	0.28	0.19	0.15
Cumulative Var	0.28	0.47	0.62

Fig. 5. Variance explained by Factors.

Loadings:			
	Factor1	Factor2	Factor3
SEC1	0.83		
SEC2	0.87		
SEC3	0.89		
SEC4	0.88		
SEC5	0.56		
SEC6	0.56		
SEC7	0.52		
HR1		0.79	
HR2		0.79	
HR3		0.97	
HR4		0.64	
TRV1			0.74
TRV2			0.97
TRV3			0.77

Fig. 6. Factor loading structure.

Table 1

Details of the factors and associated items.

Factor Number	Factor Name and Variance Explained	Variables included in the Factor	Variable Name	Factor Loadings
F1	Secure Investment	I Consider Gold as a safe and special investment avenue	SEC1	0.83
		I consider that owing gold can help to hedge against inflation	SEC2	0.87
		I consider gold as a good portfolio diversifier	SEC3	0.89
		I prefer to purchase gold as it gives financial cover for macroeconomic uncertainty	SEC4	0.88
		I prefer to purchase gold as it gives financial cover for geopolitical uncertainty	SEC5	0.56
		The risk with investment in Gold, is lower than other investment avenues	SEC6	0.56
		I feel that investment in gold gives a financial security	SEC7	0.52
F2	Expected Higher Returns	I want to invest in Gold due to expected higher returns	HR1	0.79
		The value of Gold has increased since past so I consider it as a beneficial investment.	HR2	0.79
		If needed, I can get gold loan from bank or can use gold as security for bank loan	HR3	0.97
		I can resale the Gold if needed	HR4	0.64
F3	Traditional Values	I feel that Gold is considered as a status symbol in India	TRV1	0.74
		I feel that Gold possess an ornamental value which is different from other investment avenues.	TRV2	0.97
		I feel that Gold is a symbol of family wealth and can Preserve it from one generation to another.	TRV3	0.77

De Vellis Robert [5], Scale Development: Theory and Applications, Sage Publications)

The sampling size includes respondents from different age groups, professions and gender. The questionnaire was consisting of 5-point Likert scale measures statements where strongly agree represented by 5 and strongly disagree by 1.

Factor Analysis was used to find out the perception of respondents towards purchase of Gold as an Investment Avenue. The data is analysed by using RStudio (1.2.1335).

6. Analysis and interpretation

First the reliability was checked in order to ensure the suitability of data and to estimates the amount of measurement of error. The results are displayed in Fig. 1.

As shown in the Fig. 1, the alpha reliability is 0.9087 which is based on the covariance, while value of standardized alpha is 0.9094 which is based on the correlation. It is clear from the table that reliability is decreasing with deleting each item. So, the reliability test shows Cronbach's Alpha which comes out as 0.90 which is significant for 14 variables used in the research.

Further the correlation matrix has been computed and it is found that there are enough correlations to go with factor analysis. In find out whether data is suitable for Factor Analysis or not, we conducted Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity. Results of both tests are displayed in Fig. 2.

The principal component analysis was used to decide the importance of components and then further 3 factors were extracted through Promax rotation. Factor loadings were considered on the basis of criteria given by Hair [6], a factor loading of 0.5 and above has been considered significant and chosen from Fig. 3.

The eigen values for the 3 factors are shown in Fig. 4 and found to be greater than 1, which are considered as significant.

The percentage of variance explained by individual factors is shown in the Fig. 5. The first factor explains the 28% of variance, second factor explains 19% of variance and third factor explains 15% of variance.

The present analysis accounts for 62% of the total variation. It is significant figure. The factor loadings are summarized in Fig. 6.

As clear from the Fig. 6, we have got a very clear structure after exploring factors. First 7 factors are loaded on first factor, next four factors are loaded on second factor and last three factors are loaded on the third factor.

7. Results and conclusion

This study was an attempt to explore the factors which influence the investor behaviour towards Gold as an attractive investment avenue. The details of the factors and associated items are as following Table 1:

The findings of the study suggest that security, traditional value of gold and expected higher returns are the three major factors which affects the investor behaviour towards purchase of gold. Gold gives a safety hedge against inflation, It is considered as a good portfolio diversifier, It gives a financial coverage in geopolitical and macroeconomic uncertainty, It is a easy to invest resource with good returns. Further it is a symbol of family wealth and status. It has a resale value. These all characteristics are categorized in three factors namely, Expected Higher Returns, Security, Traditional Cultural Value of Gold. These factors explain 62% of the total variance in the present study, which is quite good. These are the major factors which influence the investor behaviour towards purchasing of Gold as an investment avenue.

8. Scope for Future research

The factors discussed in this study accounts only for 62% variance. Some other factors can also be included so that the variance explained could be increased. This study can be extended to other regions of the country as well.

9. Limitations

- 1- Study is confined to Delhi NCR region only.
- 2- Respondents may be bias while responding.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Further Reading

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