Research Paper

Volume : 2 | Issue : 2 | Feb 2013 • ISSN No 2277 - 8179

A Study on Investment Behavior of Professors Towards Gold with Special Reference to Tamilnadu State

Management

KEYWORDS : Behavior, Gold Investment, Liquidity, ETF (Exchange Traded Fund), Risk, Return

Mr. P. Arulmurugan	Asst. Professor, Department of Management Studies, Kalaignar Karunanidhi Institute of Technology, Kannampalayam (PO), Coimbatore (Tamilnadu). 641 402
Dr. K. Balanagaguruthan	Professor, Department of Management Studies, K.S.Rangasamy College of Technology, Tiruchengode, Namakkal (Tamilnadu). 637 215
Ms. Mirudhubashini	Student, Department of Management Studies, Kalaignar Karunanidhi Institute of Technology, Kannampalayam (PO), Coimbatore (Tamilnadu). 641 402

ABSTRACT

The competency of professors is a major determinant of the quality of the education. The quality of one's life is closely related to the level consumption, savings and investment. The attitude of professors towards consumption, saving and investment would reflect their economic behavior, which would influence quality of life and in turn influence their profession and the education system. This main objective of the study examines the investment behavior of professors towards gold investment with special references to Tamil Nadu State. For gathering data, questionnaires were used and data were collected from 101 professors in various Arts and Engineering colleges and B-schools in TamilNadu state and type of sampling used is convenient sampling. Some of the major findings derived from this study are Professors in TamilNadu are more inclined towards future prospect like safety, high returns, liquidity, assured returns and comparatively less preference towards status, risk management, ideal time for investment and as a investment tool in a precedence order. This study also analyzes the preference towards various forms of gold investment and discloses that professors' first choice goes for Ornaments, Gold Coins, bars and last priority to ETF (Exchange Traded Funds).

1. INTRODUCTION

Gold is one commodity which plays a crucial part during major festivals like Diwali, Christmas, and year round demand during marriages. So it has a captive market in hands and hearts of the common man and this has ensured that gold is a preferred investment destination. Coupled with its simplicity, enigma, liquidity, and global acceptance gold has ruled the roost for many centuries and there is no visible substitute for it. Gold acts as a natural hedge against two important macro-economical factors namely; Inflation (Internal) and other currencies (External).

These two macro-economical factors have determined many a economic boom and doom. But for the common man more than these factors the sheer value the yellow metal is associated with has made it the Kind of both good and bad times. For centuries gold in one form or the other has been the ideal choice for investors and others, like people who buy jewellery and other forms. It is always considered to be a safe haven and it continuous to be so till date. Though there has been some fluctuations and volatility in the price movement which is influenced by more complex macro economical factors like exchange rates and inflation. Even ordinary man aspires to hold gold either as a jewel or as coins. Today especially in the Indian scenario the importance for this metal has phenomenally increased over the years. Gold has been an important aspect of any Indian wedding and it has touched the hearts of women the most.

In the Indian scenario the major trading currency is the US Dollar and gold is considered to be a natural hedge against the fluctuations of the US dollar. But an informed investor should differentiate between investing through gold by buying coins, bars, gold certificates, gold exchange traded funds (ETF), and buying gold jewellery. At any cost buying jewellery in any form is not an investment option, because buying jewellery along with the price of the gold includes making charges, wastages, and other brand related costs. But while selling the same jewellery the cost of the gold alone can be recovered and other costs are not recovered. And this other costs may mount up to 40-50% or even more.

So when think about investing in gold have to look into aspects of cost associated with storing gold and holding costs if any in case of certificates and ETF. So depending on the need and convenience of an investor he or she can choose how to invest in gold. But each has its own advantages and disadvantages and it is beyond the scope of this study.

2. REVIEW OF LITERATURE

Worawit Udompaibunsuk,(2003) Study compared three money saving methods – gold bar holdings, investment in general fixed income fund, and fixed deposit investment To study the return rates and the risks of savings in low-risk assets in the form of single securities. Low-risk assets include fixed deposit, general fixed income fund, and gold bars. The period of the research covered from January 1, 2002 to December 31, 2002, during which the deposit interest rates of commercial banks were very low. This study found savings in the form of single securities in gold bars yielded higher return rates and risks than any other types of savings. Savings by depositing money with commercial banks gave the lowest return rates but no risks, which corresponded with the principle of "a high return rate has a high risk and a low return rate has a low risk." The investment in general fixed income fund was more suitable to other types of savings because of lower risk per unit of return rate.

Jay Desai, Grishma Tandel, Jairaj Tailor & Rohan Shahi,(2009) a report on buying behavior of gold with regards to Tanishq stated that people are more price conscious & they feel that the price in Tanishq are more than what the normal retailers have. Customers also found that the patterns available are lesser than what they get in the normal retail store. Tanishq is one of the service oriented jewellery shop so customers are more attracted because of their service People are not affected with the ambiance of the shop.

Kulkanya Napompech, Amonsri Tanpipat & Nidpa Ueatrakunkamol,(2010) investigates the factors influencing gold consumption for savings and investments by people in Bangkok Metropolitan area and suggests that consumers give importance to the ups and downs of oil prices, which rise and fall in relation to the price of gold, in order to stimulate savings and investments, both government and the private sector should follow this information and keep consumers updated about oil and gold prices. Although respondents give importance to the ups and downs of the price of gold, which cannot be controlled as it is related to fluctuations in the price of oil. Therefore, gold retailers should use price strategies, such as offering a guarantee to provide confidence to customers that they will be able to sell it back whenever they want. Entrepreneurs should provide discounts, premiums, exchanges and opportunities for customers to pawn gold and make it more convenient for customers to sell gold back.

Dr. Ananthapadhmanabha Achar,(2012) analysis on saving and investment behavior on teachers states that individual characteristics of teachers such as age, gender, marital status, and lifestyle determined the savings and investment behavior of teaching community. In a more or less similar manner, their family characteristics such as monthly family income, stage of family life cycle, and upbringing status emerged as determinants of their savings and investment behavior. Accordingly, the study was confined to different categories of teachers working in various educational institutions in Udupi District of Karnataka State with a special emphasis on their attitude and behavior towards consumption, savings and investments. Hence it is micro study, the findings, discussions and conclusions cannot be generalized so as to make them applicable to all sections of the society in all States in India due to differing social-economic and cultural circumstances.

K. Balanaga Gurunathan & S. Muniraj,(2012) study evaluates the impacts of Customer awareness and buyer Behavior on Buying Jewellery Products–Special Reference to Tamil Nadu State and concluded that jewellery investment is a unstabilizing activity, the result shows gold jewellery with mean of 4.60 in the first priority , the silver jewellery with mean of 2.30 in the second priority, diamond jewellery item with of 1.12 in the third priority, new methods of investment like Platinum jewellery with mean of 0.62 in forth priority of customer buying behavior and awareness of jewellery in TamilNadu state.

S K Baral, (2012) Empirical study on Investment in Gold as shining option in derivatives market concluded that investment in gold is an important derivative instrument which has been widely accepted in order to avoid any kind of financial downturn in future and is regarded to be one of the safest investments. Gold is an evergreen investment option and certainly the choice during difficult times and for Indians, gold has traditionally been the first investment choice, ahead of stocks, debt or real estate.

3. STUDY OBJECTIVE

A study on Investment behavior of Professors towards Gold with special reference to TamilNadu state.

- To study preference of the major influencing factors towards Gold Investment
- To study and categorize the highly correlated variables into factors which influences preferences towards Gold Investment
- To study the influence of Gender and time of gold investment towards various forms of gold.

4. RESEARCH METHODOLOGY

This study aims to analyze the Investment Behavior of Professors towards Gold Investment with Special Reference to TamilNadu State. The study is based on the primary data through a well structured questionnaire which was finalized based on comments and suggestions given by researchers, experts and academicians. The relevant secondary data have been collected from various journals, magazines, books and websites.

Sampling Design

Descriptive type of research was used. The study is infinite and hence the type of sampling method adopted was convenient (purposive) sampling. The sample size is 101 and data were collected from professors in various Arts and Science colleges, Engineering Colleges and B – Schools in TamilNadu State.

Statistical Tools Used

The Statistical Package for Social Sciences(SPSS) was used and the following tools were administered in this study a)Reliability analysis, b) Kolmogrov - Smirnov test, c)Garrett ranking, d)Factor Analysis, e) Chi- square

ANALYSIS AND INTERPRETATION

A) Reliability Analysis

The reliability of the data had been examined to check the consistency for all questions of this study through Cronbach's Alpha coefficient. From Table 1, it is clear that value of coefficient alpha obtained was .819 (>.05) which shows data has satisfactory internal consistency reliability.

Table 1 Reliability Statistics

Cronbach's Alpha	N of Items
.819	19

B) Kolmogrov - Smirnov test

An examination had been made for the normality of the data to check whether all the variables in the population are normally distributed by Kolmogrov Smirnov test. Table 2 shows that for all variables under study had obtained significant value less than .05 and hence it implies that the population taken for sampling is normally distributed.

Table 2 One-Sample Kolmogorov-Smirnov Test

	Kolmogorov-Smirnov Z	Asymp. Sig. (2-tailed)
For Children Future	1.88	0.00
Safety Investment	2.00	0.00
High Return	1.56	0.02
Assured Return	1.29	0.07
Liquidity	0.91	0.38
Traditional Value	1.53	0.02
Social Status	1.30	0.07
Alternative Investment Tool	1.16	0.14
Future Prospect	1.51	0.02
Freedom From Risk	1.56	0.01
Idle Cash Utilization	1.37	0.05
Mange uncertainty	1.46	0.03

C) Garrett Ranking

To study the most important factors which influence the professors in TamilNadu State to invest in gold, Garrett's ranking technique was used. As per this method, respondents have been asked to assign the rank for all the factors and outcome of such ranking have been converted into score value with the help of the following formula:

Percent Position = 100(Rij-0.5) / Nj

Where,
Rij = Rank given for the ith factor by the jth respondents
Nj = Number of factors ranked by the jth respondents.

Table 3 Garrett Ranking selection factors results

Factors	Score	Rank	Factors	Score	Rank
Safety Investment	64.51	1	Freedom From Risk	46.55	7
For Children Future	59.46	2	Traditional Value	45.45	8
Future Prospect	56.19	3	Social Status	43.99	9
High Return	55.29	4	Idle Cash Utilization	43.58	10
Assured Return	54.87	5	Alternative Investment Tool	43.48	11
Liquidity	48.44	6	Manage Uncertainty	39.48	12

By referring the Garrett's table, the percent position estimated is converted into scores. Then for each factor the scores of each individual are added and then mean values is considered to be the most important. Table 3 exhibits Garrett's ranking and scores. The table highlights Garrett's scores which help to decide the most important factors considered by the professors towards investment in gold. The highest score is 64.51, I rank for safety investment, and the lowest rank is 39.48, the last rank selected by the respondent is to manage uncertainty. It is inferred from

these table that an individual chooses the factor based on his own perceptions in order to satisfy their routine needs.

Similarly the preference towards investment in various form of Gold by professors in TamilNadu State also has been studied using Garrett ranking technique. Below Table shows the preference of investment towards various forms of Gold.

Table 4 Preference of investment towards various form of Gold

Factors	Score	Rank	Factor	Score	Rank
Ornaments	63.47	1	Saving Schemes	48.32	4
Gold Coins	62.66	2	Other Forms of gold	44.45	5
Gold Bars	49.37	3	EFT	42.42	6

Table 4 exhibits Garrett's ranking and scores. The table highlights Garrett's scores which help to decide the most important factors considered by the professors towards investment in various forms of gold. The highest score is 63.47, I rank for ornaments, and the lowest rank is 42.42, the last rank selected by the respondent is to ETF (e-Gold). It is inferred from these table that an individual chooses the factor based on his own perceptions in order to satisfy their routine needs.

D) Factor Analysis

The data obtained from the study were analyzed by using factor analysis for identification of the key factors that influences professors in TamilNadu State to invest in Gold. Factor Analysis identifies common dimensions of factor from the observed variables that have a high correlation among the factor. Principal Component Analysis is the commonly used method for grouping the variables under few unrelated factors. The reliability of the samples collected was tested for internal consistency of the grouping of items in below Table 5 by KMO test and Bartlett's test of sphericity.

Table 5 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.681
Bartlett's Test of Sphericity	Approx. Chi-Square	689.201
	Df	153
	Sig.	0.000

The significance value .000 is less than assumed value 0.05. This means that the factor analysis is valid. Inferring the Kaiser-Meyer-Olkin (KMO) coefficient .681 the value is more than 0.5, so this implies that the factor analysis for data reduction is effective. Bartlett's test of sphericity is used to examine the hypothesis that the variables are uncorrelated It is based on chi-square transformation of the determinant of correlation matrix. A large value of test statistic will favor the rejection of null hypothesis. In turn, this would indicate that factor analysis is appropriate. Bartlett's test of sphericity chi square statistic is 689.201, which show the statements are correlated as shown in below Table 6.

Table 6 Correlation Matrix

Variable No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1.00																	
2	0.26	1.00																
3	0.24	0.38	1.00															
4	0.16	0.37	0.35	1.00														
5	0.26	0.46	0.47	0.27	1.00													
6	0.05	0.24	0.20	0.06	0.32	1.00												
7	0.14	0.11	0.22	0.17	0.16	0.53	1.00											
8	0.41	0.37	0.37	0.35	0.32	0.23	0.19	1.00										
9	0.29	0.30	0.21	0.25	0.30	0.05	0.06	0.34	1.00									
10	0.25	0.19	0.28	0.23	0.24	0.10	0.17	0.20	0.30	1.00								
11	0.29	0.21	0.28	0.32	0.25	0.18	0.22	0.35	0.24	0.50	1.00							
12	0.15	0.12	0.34	0.19	0.21	0.01	0.04	0.24	0.21	0.42	0.39	1.00						
13	0.37	0.26	0.23	0.42	0.33	0.34	0.37	0.20	0.42	0.39	0.34	0.24	1.00					
14	0.08	0.07	0.39	0.20	0.36	0.28	0.26	0.18	0.30	0.31	0.35	0.27	0.33	1.00				
15	0.18	0.24	0.26	0.35	0.40	0.01	-0.05	0.30	0.29	0.31	0.33	0.37	0.24	0.32	1.00			
16	0.08	-0.01	0.08	-0.07	0.15	0.06	-0.04	-0.01	0.05	0.12	0.18	0.31	0.09	0.09	0.37	1.00		
17	-0.05	-0.12	-0.14	-0.18	0.03	0.00	-0.06	-0.04	-0.09	-0.02	0.14	0.12	-0.05	-0.08	0.16	0.59	1.00	
18	0.20	0.04	-0.06	0.07	0.11	0.00	0.01	0.15	0.16	0.06	0.24	-0.08	0.17	0.09	0.10	0.13	0.29	1.00

Table 6 (a)

Variable No	Variable Name	Variable No	Variable Name
1	Children Future	10	Alternative Investment Tool
2	More Secured	11	Risk Distribution
3	Yields High return	12	Price falls back
4	Assured Return	13	Sign Of prosperity
5	Liquidity	14	Uncertainty and Inflationary pressures
6	Traditional Value	15	Easy Buyback
7	Social Status	16	At Discount price
8	Future Investment Value	17	With Offers
9	Idle Cash Utilization	18	Family shop

There are different qualities that affect the investment behavior of professors towards Gold. 18-factors are generated for measuring respondent's opinion on 5-point scale towards Gold investment. Factor Matrix and their corresponding factor loading after varimax rotation are presented in the Table 7.

Table 7 Rotated Component Matrixa					
	Component				
	1	2	3	4	5
Children Future	0.682	-0.085	0.052	0.255	-0.055
More Secured	0.726	-0.072	0.074	-0.012	-0.19
Yields High return	0.68	-0.026	0.195	0.114	0.225
Scale Assured Return	0.646	-0.101	-0.035	-0.021	0.354
scale Liquidity	0.71	0.125	0.19	0.096	-0.056
Scale Traditional Value	0.188	0.101	0.879	-0.012	-0.043
Scale Social Status	0.125	-0.055	0.818	-0.056	0.121
Future Investment Value	0.68	-0.141	0.148	0.139	-0.016
Scale Idle Cash Utilization	0.261	-0.043	0.039	0.853	0.099
Scale Alternative Investment Tool	0.223	0.042	0.049	0.866	0.185
Risk Distribution	0.166	-0.028	0.065	0.236	0.734
Price falls back	-0.01	0.828	0.119	-0.094	0.156
Sign Of prosperity	0.172	0.224	0.823	0.183	-0.004
Uncertainty and Inflationary pressures	0.072	0.165	0.031	0.085	0.889
Easy Buyback	0.576	0.388	-0.23	0.244	0.164
At Discount price	0.057	0.868	0.119	0.139	-0.061
With Offers	-0.131	0.828	0.004	-0.06	0.009
Family shop	0	0.302	-0.019	-0.08	0.269
Extraction Method: Principal Component Analysis. Rotation Method:Varimax with Kaiser Normalization. a. Rotation converged in 6 iterations.					

Table 8 Factors named after grouping the variables				
F1(Future Prospect)	F2 (Ideal Time for Investment)	F3 (Conventional value)	F4 (Investment Tool)	F5 (Risk management)
Children Future	Price falls back	Traditional Value	Idle Cash Utilization	Risk Distribution
More Secured	At Discount price	Social Status	Alternative Investment Tool	Uncertainty and Inflationary pressures
Yields High return	With Offers	Sign Of prosperity		
Assured Return				
Liquidity				
Future Investment Value				
Easy Buyback				

From the above Table 8 clearly indicates that first factor is identified, Children Future, More Secured, Yields High return, Assured Return, Liquidity, Future Investment Value, Easy Buyback

all these factors are grouped under Factor-1 and termed as "Future Prospects". The Second Factor is identified Price falls back, At Discount price, With Offers, and all these factors are grouped under Factor-2 and termed as "Ideal Time for Investment". The Third Factor is Traditional Value, Social Status, Sign of prosperity are grouped under Factor-3 and termed as "Conventional Value" .The Fourth Factor are Idle Cash Utilization, Alternative Investment Tool, and these factors are grouped under Factor-4 and termed as "Investment Tool". The Fifth Factor is Risk Distribution, Uncertainty and Inflationary pressures, and termed as "Risk management".

E) Chi Square test

i) Gender Vs Forms of Gold

H0: There is no association between the Gender and investment towards various forms of Gold.

H1: There is an association between the Gender and investment towards various forms of Gold.

Table 9 Test Statistics		
	Form Of Gold Investment	Gender
Chi-Square	114.000a	3.922b
Df	5	1
Asymp. Sig.	0	0.048
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 17.0. b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 51.0.		

Above Table 9 exhibits that significant value .048 which could be inferred as there is no evidence to accept the hypothesis H0.Hence it can be interpreted as there is an association between the gender and investment towards various forms of Gold.

ii) Forms of Gold Vs Time of Investment

H0: There is no association between the Time of investment and investment towards various forms of Gold.

H1: There is an association between the Time of investment and investment towards various forms of Gold.

Table 10 Test Statistics		
	Time of investment	Form Of Gold Investment
Chi-Square	36.235a	114.000b
Df	4	5
Asymp. Sig.	0.00	0.00
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.4. b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 17.0.		

From the above Table 10 it could be inferred as there is no evidence to accept the hypothesis H0 as the significant value shows .000.Hence it can be interpreted as there is an association between the Time of investment on gold and investment towards various forms of Gold.

Volume : 2 | Issue : 2 | Feb 2013 • ISSN No 2277 - 8179

5. CONCLUSION

The present study made an intense effort to study the Investment behavior of the professors towards Gold Investment in TamilNadu State. In the ultimate analysis of the study, individual and family characteristics of professors such as age, gender, marital status, lifestyle, monthly family income, stage of family life cycle and various factors like safety, liquidity, traditional value, investment tool, risks and returns associated with Gold investment determines the investment behavior of professor's community in the study region. It should be noted that this study was carried out in one state covering one community focusing on one dimension of the dynamics of the gold investment in order to facilitate an in-depth analysis of the phenomenon. The study hypotheses were tested by Garrett ranking technique, Factor analysis and Chi-Square test, all the hypotheses were verified. Thus, study result shows that especially professors give more inclination to safety, security, high returns, status, investment tool and managing uncertainty as last preference in Garrett Ranking technique. This study also analyzes the preference towards various forms of gold investment and discloses that professors' first choice goes for Ornaments, Gold Coins, bars and last priority to ETF (Exchange Traded Funds). In Factor analysis, as well those similar variables are factorized under five categories as future prospects, risk management, Ideal time for investment, conventional value and as an alternative investment tool which are highly correlated to each other in right of way order. This study also evidences that investment towards various forms of Gold is influenced by the occasion of Gold investment and by the Gender too with respect to Gold investment behavior of Professors in TamilNadu state.