



A STUDY ON FACTORS INFLUENCING SMALL SAVINGS WITH REFERENCE TO COLLEGE TEACHERS IN DHARMAPURI DISTRICT

Dr.G.Prabakaran* **M.Gandhi****

**Assistant Professor, Department of Business Administration, Government Arts College, Dharmapuri District, Tamilnadu India.*

***Doctoral Research Scholar, Department of Management Studies, Periyar University, Salem, Tamilnadu, India.*

Abstract

This paper has attempted to study the factors influencing small savings with reference to college teachers in Dharmapuri district. The research design applied for this study is descriptive. Both primary and secondary data were used in this study. Primary data were collected from college teacher investors in five taluks of Dharmapuri district, Tamilnadu. Secondary data were also collected from journals, magazines, periodicals and dailies. The sample respondents who have been working as college teachers in government and private colleges were selected by adopting multi stage random sampling process. Teachers should consider the quality of the agents and publicity, tax exemption, service offered by banks and post office, features of the various small saving products and their periodic reviews.

Key Words: Small Savings, Risk and Return.

1. Introduction

Traditionally, investment is defined as the current commitment of resources in order to achieve later benefits. If resources and benefits take the form of money, investment is the present commitment of money for the purpose of receiving (hopefully more) money later. In some cases, such as the purchase of bank certificate of deposit, the amount of money to be obtained later is known exactly as investment. However, in most situations the amount of money to be obtained later is uncertain. Therefore, investment is the employment of funds with the aim of achieving additional income or growth in value. The essential quality of an investment is that, it involves “waiting for a reward”. It involves the commitment of resources which have been saved or put away from current consumption in the hope that some benefits will accrue in future.

Investors are heterogeneous group, they may be large or small, rich or poor, experts or laymen and not at all investors need equal degree of protection (Mayya,1996). An investor has three objectives while investing his money namely, safety of invested money, liquidity position of invested money and return on investment. Among all investment options (Bank Deposits, Post office deposits, Co-operative deposits, Public provident fund deposits, PSU bonds, Government securities, equity shares, preference shares, debt schemes, LIC policies, money market investments, investments in real estates and investment in precious objects) securities are considered the most challenging as well as rewarding. Securities include shares, debentures, derivatives, units of mutual funds, government securities etc., (section 2 (b) of the securities contracts (Regulation) Act, 1956). An investor may be an individual or corporate legal entity investing funds with a view to derive maximum economic advantage from investment such as rate of return, capital appreciation, marketability, tax advantages and convenience of investment. Different investment options represent a different risk-return trade off. Low risk investment offers are assured, but fetch lower returns, while high risk investments provide the potential to earn greater returns. Hence, an investors' level of risk tolerance plays a key role in choosing the most suitable investment.

2. Significance of the Study

Investments are important and useful in the context of present day conditions. Some factors that have made investment decisions increasingly important in longer life expectancy or planning for retirement, increasing rates of taxation, high interest rates, high rate of inflation, larger incomes and availability of a complex number of investment outlets. The importance of investment decisions is enhanced by the fact that there is an increasing number of women working in organizations. Men and women will be responsible for planning their own investments during their working life so that after retirement they are able to have a stable income. Investment decisions have assumed importance due to general increase in employment opportunities in India. The employment opportunities give rise to increasing incomes.

The level of interest rates is another aspect which is necessary for a sound investment plan. Interest rates vary between one investment and another. These may vary between risky and safe investments; they may also differ due to different benefit schemes offered by the investments. A high rate of interest may not be the only factor favouring the outlet for investment. He / She must maintain a portfolio with high risk and high return as well as low risk and low return. Stability of interest taxation is one of crucial factors in any country which introduces an element of compulsion in a person's savings. There are various forms of savings outlets in our country in the form of investment which help in bringing down the tax level.



3. Statement of the Problem

The alternative forms of investment such as Government Securities, Life Insurance, Unit Trust Schemes, Post Office Plans, National Savings Certificates have the unique feature of stability of return. Fixed deposit schemes in companies combine the advantages of commercial bank deposits coupled with a higher rate of return through interest. Investments in property, gold and silver, jewellery, diamonds and antiques give a high rate of return to the investor. They have a common feature. This is that the period of holding these investments are long and the return is high only if the return spends a large sum of money. These investments are to be taken only by proper consideration and by taking into account the risky nature as price instead of appreciation may fall due to uncertain economic and political conditions of the country. If the price increases, then the investor stands to gain. Thus, the investor has a large number of investment outlets. The investor may choose from this list after analyzing the advantages and disadvantages provided by each investment. The investors have a lot of suspicion and doubts about the operation of various investment avenues; If the principal really protected? Whether the risks are adequately covered? Is the return available on these investment avenues considered adequate by the investors? Whether investment in these avenues provides safety of investment for investors? Whether investors still prefer investments in shares and debentures or alternative forms of investment? Whether income schemes are providing adequate return to the investors? The present study tries to address the above questions as well as to provide information on investors' perception and behaviour towards investment in various avenues.

4. Objective of the Study

To ascertain the factors influencing small savings of college teachers in Dharmapuri District.

5. Research Methodology

The research design applied for this study is analytical and descriptive. Both primary and secondary data were used in this study. Primary data were collected from college teacher investors in five taluks of Dharmapuri district, Tamilnadu. Secondary data were also collected from journals, magazines, periodicals and dailies. Data collection instrument was designed in accordance with the statement of the problem and objectives of the study. The variables identified from review of literature were taken into account while drafting and finalizing the data collection instrument. The opinion from a panel of members comprising experts in the field of stock market, small savings, management, psychology and statistics was sought for, at every stage of designing the final interview schedule. The sample respondents who have been working as college teachers in government and private colleges were selected by adopting multi stage random sampling process.

- **First Stage:** In the first stage of sample selection, Dharmapuri district was chosen and divided into two divisions, namely, Dharmapuri and Harur.
- **Second Stage:** In the second stage of sample selection process, two major divisions were divided into five revenue taluks. All the five taluks namely, Dharmapuri, Palacode and Pennagaram from Dharmapuri division and Harur and Papireddipatti from Harur division were considered for sample selection.
- **Third Stage:** In this stage of sample selection process, all the five taluks were divided into eight blocks. Sample respondents were selected from all the eight blocks.
- **Fourth Stage:** Totally 374 Sample respondents were proportionately selected from all the government and private arts and science colleges. (ie, 44 percent of the total population) of this district.

6. Limitation of the Study

The study is confined to teacher investors working in arts and science colleges of Dharmapuri District only.

7. Data Analysis

To study the factors influencing small savings, factor analysis and multiple regression analysis are applied. Fourteen statements related to factors influencing small savings are considered for this study. The detailed study of factor analysis and multiple regression analysis are given below.

Factor Analysis

The factor analysis tries to identify and define the underlying dimensions (factors) in the original variables. Here 14 variables are identified to study the factors influencing small savings. The variables are stated in the form of statements to collect opinion from investors. They are asked to give their opinion for all the 14 statements in the Likert's five point scale with alternate options such as strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. Initially the correlation among these variables is calculated. Usually, a correlation value of 0.3 is considered sufficient to explain the relation between variables. If the correlation between variables is small, it is not likely that they share common factors. A closer examination of the correlation matrix may reveal variables which do not have any relationship. Therefore, all the 14

variables have been retained for further analysis. Further, two tests are applied to the resultant correlation matrix to test whether the relationship among the variables is significant or not.

Table 1, KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.807
Bartlett's Test of Sphericity	Approx. Chi-Square	1137.557
	df	105
	Sig.	.000

[Source: Primary Data]

The Kaiser – Meyer – Olkin test is based on the correlations and partial correlations of the variables. If the test value of KMO measure is closer to one, it is good to use factor analysis. If KMO measure is closer to Zero, the factor analysis is not good for the variables and data. The value of test statistics is given above as 0.700 which means the factor analysis for the identified variables is found to be appropriate to the data.

Bartlett's test of sphericity is used to test whether the correlation matrix is an identified matrix i.e., all the diagonal terms in the matrix are zero. The significant value of Bartlett test is 0.000. Hence, there exists significant relationship among the variables. The measure of KMO test and value of Bartlett test indicate that the present data are useful for factor analysis.

Table 2, Factors and Total Variance

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.004	26.694	26.694	4.004	26.694	26.694	2.042	13.616	13.616
2	1.568	10.454	37.148	1.568	10.454	37.148	1.959	13.058	26.673
3	1.184	7.895	45.043	1.184	7.895	45.043	1.957	13.046	39.720
4	1.097	7.313	52.356	1.097	7.313	52.356	1.777	11.845	51.565
5	1.016	6.774	59.130	1.016	6.774	59.130	1.135	7.565	59.130

[Source: Primary Data]

The next steps in the process are to decide about the number of factors to be derived. The rule of thumb is applied to choose the number of factors for which "Eigen Values" with greater than unity is taken by Principal Component Analysis (PCA) method. The component matrix so framed is further rotated orthogonally using Varimax Rotation Algorithm. All the statements are added on the five factors. The results so obtained have been given in the tables separately along with factor loadings.

Among the five factors, the first factor which accounts for 13.616 percent of variance is the prima criteria considered to study the factors influencing small savings. The second, third, fourth and fifth factors account for 13.058 percent, 13.046, 11.845 and 7.565 percent respectively. The cumulative variance of all five factors is 59.130 percent. The following table gives the factor matrix where Principal Component Analysis extracted five factors.

Table 3, Component Matrix

Sl.No	Statements	Component				
		1	2	3	4	5
1.	Periodic review is not necessary in small saving.	.638				
2.	Small savings involves less procedure while making investment.	.630	-.475			

3.	Betterment of services may attract more investors towards the schemes.	.618			
4.	There is no hindrance in getting information about small saving schemes.	.553			
5.	I am getting good return from small saving instruments.	.545			.475
6.	Govt. can give tax exemption for all long term investments.	.529		-.450	
7.	Place of investment in small savings is conveniently located.	.523			
8.	Publicity and agents are pushing me to make investment in small savings.	.509			
9.	Agents play a vital role in mobilizing the savings of people.	.498			
10.	I am comfortable with service provided by agents and post offices.	.496		.444	
11.	All small saving schemes are Govt. sponsored schemes.	.479			
12.	I put money in Small Savings instruments only to save tax.	.528	-.533		
13.	Post office employees are customer friendly to the investors.	.435	.483		
14.	I know all the features of small saving schemes.	.458			.507

[Source: Primary Data]

Table 3 reveals that the factor loadings (co-efficient) indicate how much weights is assigned to each factor. Factors with large co-efficient for a variable are closely related to that factor. Thus, the 14 variables in the data are reduced into three factor models and each factor is identified with the corresponding variables as given below.

Table 4, Grouping of Factors (Rotated Component Matrix)

Factors	Statements
Factor 1 (Agents & Publicity)	1. Agents play a vital role in mobilizing the savings of people. (0.711)
	2. Publicity and agents are pushing me to make investment in small savings. (0.707)
	3. Government can give tax exemption for all long term investments. (0.617)
	4. Place of investment in small savings is conveniently located. (0.570)
Factor 2 (Tax Exemption)	1. I put money in small savings instruments only to save tax. (0.804)
	2. I am getting good return from small saving instruments. (0.654)
	3. Small savings involves less procedure while making investment. (0.613)
Factor 3 (Service)	1. Post office employees are customer friendly to the investors. (0.701)
	2. I am comfortable with service provided by agents and post offices. (0.660)
	3. There is no hindrance in getting information about small saving schemes. (0.632)
	4. Betterment of services may attract more investors towards the schemes. (0.562)
Factor 4 (Features)	1. I know all the features of small saving schemes. (0.722)
	2. All small saving schemes are Government sponsored schemes. (0.655)
Factor 5 (Periodic Review)	Periodic review is not necessary in small saving. (0.913)

[Source: Primary Data]

Table 4 exhibits the factors and corresponding statements with scores. Factor scores is obtained for each statement. If the score is high the level of factors influencing small savings will be high on the respondents.

All the 14 statements with score and ranks are provided in the following table.

Table 5, Statements with Rank and Score

Sl.No	Statements	Score	Rank
1.	Periodic review is not necessary in small saving.	.913	I
2.	I put money in small savings instruments only to save tax.	.804	II
3.	I know all the features of small saving schemes.	.722	III
4.	Agents play a vital role in mobilizing the savings of people.	.711	IV
5.	Publicity and agents are pushing me to make investment in small savings.	.707	V
6.	Post office employees are customer friendly to the investors.	.701	VI

7.	I am comfortable with service provided by agents and post offices.	.660	VII
8.	All small saving schemes are Government sponsored schemes.	.655	VIII
9.	I am getting good return from small saving instruments.	.654	IX
10.	There is no hindrance in getting information about small saving schemes.	.632	X
11.	Government can give tax exemption for all long term investments.	.617	XI
12.	Small savings involves less procedure while making investment.	.613	XII
13.	Place of investment in small savings is conveniently located.	.570	XIII
14.	Betterment of services may attract more investors towards the schemes.	.562	XIV

[Source: Primary Data]

Table 5 describes the most as well as least influencing factors of small savings. Out of the 14 statements “Periodic review is not necessary in small savings” has high influence on small savings and this statement is placed first. The statement namely “Better services may attract more investors towards the scheme” has low influence on small savings and this statement is placed 14th rank.

Multiple Regression Analysis

Multiple Regression Analysis represents logical extension of two variable regression analysis. Instead of a single independent variable, multiple independent variables are used to estimate the values of dependent variable (Factors influencing small savings). Independent variables such as designation, department, type of institution, age, educational qualification, gender, experience, marital status, family size, monthly income and field of investment are considered for the study. The following model summary table depicts the value of R, R², adjusted R² and standard error of the estimate.

Table 6,Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.243 ^a	.0590	.030	5.401

[Source: Primary Data]

The model summary table 6 shows that R is the correlation and R square is the degree of determination. The degree of determination shows the extent to which independent variables influence the investors to invest in small savings. Correlation (R) value is 0.243 and R² value is 0.590. Here, the factors influencing investors to invest in small savings are determined to an extent of 59% by the independent variables.

Table 7, ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	663.044	11	60.277	2.066	.022 ^b
Residual	10561.536	362	29.176		
Total	11224.580	373			

[Source: Primary Data]

Anova table 7 shows that the significant value is 0.022, which mean dependent variable (Factors influencing small savings) is significantly predicted by independent at 95% of confidence level. The mean square and F – value are 60.277 and 2.066 respectively. The value of sum of squares is 663.044 on 11 degrees of freedom.

Table 8,Coefficients

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	11.658	2.817		4.139	.000
Designation	-.368	.529	-.044	-.695	.487
Department	1.683	.570	.154	2.955	.003
Type of the Institution	.008	.553	.001	.014	.989
Age	-.098	.259	-.021	-.377	.706
Educational Qualification	.136	.280	.027	.485	.628
Gender	1.804	.587	.163	3.072	.002
Experience	.142	.279	.027	.510	.610
Marital Status	.548	.574	.050	.955	.340
Family Size	-.424	.491	-.047	-.863	.389
Monthly Income	.342	.262	.079	1.306	.192
Field of Investment	.247	.194	.073	1.277	.203

[Source: Primary Data]

The above co – efficient table 8 shows the regression co – efficient which can be used to write the regression equation. The multiple regression equation describes the average relationship between these variables and the relationship is used to predict or control the dependent variables. Out of 11 independent variables, only two variables namely department and gender have significant effect on factors influencing small savings. Therefore, factors influencing small savings = 11.658 (Constant) +1.683 (Department) +1.804 (Gender).

8. Findings

1. It is learnt from the factor analysis that all the 14 statements are added on the five factors.
2. Among the five factors, the first factor which accounts for 13.66% of variance is the prima criteria considered to study the factors influencing small savings. The second, third, fourth and fifth factors account for 13.058%, 13.046%, 11.845% and 7.565% respectively. The cumulative variance of all the five factors is 59.130%. Factor 1 (Agents & Publicity) includes four statements, Factor 2 (Tax Exemption) includes three statements, Factor 3 (Service) includes four statements, Factor 4 (Features) includes two statements and factor 5 (Periodic Review) includes only one statement.
3. It is also learnt from the factor analysis that out of 14 statements “Periodic review is not necessary in small savings” has high influence on small savings and this statement is placed first. The statement namely “Better services may attract more investors towards the scheme” has low influence on small savings and this statement is placed 14th rank.
4. It is found from the multiple regression analysis, correlation (R) value is 0.243 and R² value is 0.590. Here, the factors influencing investors to invest in small savings are determined to an extent of 59% by the independent variables. Out of 11 independent variables, only two variables namely department and gender have significant effect on factors influencing small savings. Therefore, factors influencing small savings = 11.658 (constant) +1.683 (Department) +1.804 (Gender).

9. Conclusion

As far as factors influencing small savings are concerned, teachers should consider the quality of the agents and publicity, tax exemption, service offered by banks and post office, features of the various small saving products and their periodic reviews as these factors are identified by the factor analysis. Teachers also ought to give due weightage to two important independent variables out of 11 namely, department and gender as these two factors have significant effect on factors influencing small savings.

References

1. Achar, A., 2012. Saving and Investment Behaviour of Teachers. An empirical study. International Journal of Physical and Social Sciences. 263-286.
2. Avadhani V.A, “Securities Analysis and Portfolio Management”, Himalaya Publishing House, Mumbai, 2011.
3. Dr. Ananthapadmanabha Achar (2012) Saving and Investment Behaviour Of Teachers - An empirical study, International Journal of Physical and Social Sciences, August 2012, pp 263-286
4. Bhalla V.K, “Investment Management”, S.Chand & Company Ltd, New Delhi, 2012.
5. Bhardwaj Rajesh, Raheja Rekh and Priyanka (2011), Analysis Of Income And Savings Pattern Of Government And Private Senior Secondary School Teachers, Asia Pacific Journal of Research in Business Management, 2011, Volume : 2, Issue : 9 pp 44-56.
6. Ch.Kirshnuudu, B. Krishna reddy and G. Rama Krishna reddy (2005), “Investment behaviour and risk management”.
7. David G.Luenberger, “Investment Science”, Oxford University Press, New Delhi, 2010.
8. Dr. Dhiraj Jain and Parul Jain (2012) Savings and Investment Pattern of School Teachers -a study with reference to Udaipur District, Rajasthan, International Journal Of Research In Commerce, Economics & Management, Volume no. 2 (2012), Issue no. 6 (JUNE 2012)
9. Donald E.Fischer and Ronald J.Jordan, “Security Analysis & Portfolio Management”, PHI Learning, New Delhi, 2011.
10. Donald R. Cooper, Pamela S. Schindler and J K Sharma, “Business Research Methods”, Tata Mc Graw Hill, New Delhi, 2012.
11. Gupta, S.P. 2012. Statistical Methods, New Delhi: Sultan Chand & Sons.
12. Kevin.S, “Securities Analysis and Portfolio Management”, PHI Learning, New Delhi, 2012.
13. Kothari C.R, “Research Methodology Methods and Techniques”, New Age International Publishers, New Delhi, 2004.
14. Dr. S. Mathivannan and Dr. M. Selvakumar (2011), Saving and Investment Pattern of School Teachers – A study with reference to Sivakasi Taluk, Tamil Nadu, Indian journal of finance April, 2011
15. Prasanna Chandra, “Investment Analysis and Portfolio Management”, Tata McGraw Hill, New Delhi, 2013.
16. Preeti Singh, “Investment Management Security Analysis and Portfolio Management”, Himalaya Publishing House, Mumbai, 2012.
17. Virani,V. 2012. Saving and Investment pattern of school teachers - A study With special reference to Rajkot City,Gujrat. Abhinav National Refereed journal of research in Commerce and Management. 2(4):2277-1166.