

## A STUDY ON FACTORS INFLUENCING INVESTMENT IN CORPORATE SECURITIES IN VIRUDHUNAGAR DISTRICT

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### Introduction

In its broadest sense, an investment is a sacrifice of current money or other resources for future benefits. Numerous avenues of investment are available today. You can deposit money in a bank account or purchase a long-term government bond or invest in the equity shares of a company or contribute to a provident fund account or buy a stock option or acquire a plot of land or invest in some other form.

The two key aspects of any investment are time and risk. The sacrifice takes place now and is certain. The benefit is expected in the future and tends to be uncertain. In some investments (like government bonds) the time element is the dominant attribute. In other investments (like stock options) the risk element is the dominant attribute. In yet other investment (like equity shares) both time and risk are important. In this study the various reasons influencing investment decision are identified.

### Review of Literature

E. Bennet, M. Selvam, Eva Ebenezer, V. Karpagam and S.Vanitha (2011)<sup>1</sup> asserted that the average value of the five factors, namely, Return on Equity, Quality of Management, Return on Investment, Price to Earnings Ratio and various ratios of the company influenced the decision makers. Further, other five factors, namely, recommendation by analysts, Broker and Research Reports, recommendations by friends, family and peer, Geographical Location of the company and Social Responsibility were given the lowest priority or which had low influence on the stock selection decision by the retail investors.

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<sup>1</sup> Bennet E., Selvam M., Eva Ebenezer, Karpagam.V and Vanitha.S., “Investors Attitude on Stock Selection Decision” International Journal of Management and Business Studies, Vol. 1 (2), 2011.

### Investment Versus Speculation

While it is difficult to draw the line of distinction between investment and speculation, it is possible to broadly distinguish the characteristics of an investor from those of a speculator as follows.

	Investor	Speculator
Planning horizon	An investor has a relatively longer planning horizon. His holding period is usually at least one year.	A Speculator has a very short planning horizon. His holding period may be a few days to a few months.
Risk disposition	An investor is normally not willing to assume more than moderate risk. Rarely does he knowingly assume high risk.	A speculator is ordinarily willing to assume high risk.
Return expectation	An investor usually seeks a modest rate of return which is commensurate with the limited risk assumed by him.	A speculator looks for a high rate of return in exchange for the high risk borne by him.
Basis for decisions	An investor attaches greater significance to fundamental factors and attempts a careful evaluation of the prospects of the firm.	A speculator relies more on hearsay, technical charts, and market psychology
Leverage	Typically an investor uses his own funds and eschews borrowed funds.	A speculator normally resorts to borrowings, which can be very substantial, to supplement his personal resources.

### Gambling

Gambling is fundamentally different from speculation and investment in the following respects:

- Compared to investment and speculation, the result of gambling is known more quickly. The outcome of a roll of dice or the turn of a card is known almost immediately.
- Rational people gamble for fun, not for income.
- Gambling does not involve a bet on an economic activity. It is based on risk that is created artificially.
- Gambling creates risk without providing any commensurate economic return.

## **Approaches to Investment Decision Making**

### **Equity Shares**

Equity shares represent ownership capital. As an equity shareholder, you have an ownership stake in the company. This essentially means that you have a residual interest in income and wealth. Perhaps the most romantic among various investment avenues, equity shares are classified into the following broad categories by stock market analysis:

- Blue chip shares
- Growth shares
- Income shares
- Cyclical shares
- Speculative shares

### **Bonds**

Bonds or debentures represent long-term debt instruments. The issuer of a bond promises to pay stipulated stream of cash flow. Bonds may be classified into the following categories.

- Government securities
- Savings bonds
- Government agency securities
- PSU bonds
- Debentures of private sector companies
- Preference shares

### **Money Market Instruments**

Debt instruments which have a maturity of less than one year at the time of issue are called money market instruments. The important money market instruments are :

- Treasury bills
- Commercial paper
- Certificates of deposit

### **Mutual funds**

Instead of directly buying equity shares and/or fixed income instruments, you can participate in various schemes floated by mutual funds which, in turn, invest in equity shares and fixed income securities. There are three broad types of mutual fund schemes:

- Equity schemes
- Debt schemes
- Balanced schemes

### Financial Derivatives

A financial derivative is an instrument whose value is derived from the value of an underlying asset. It may be viewed as a side bet on the asset. The most important financial derivatives from the point of view of investors are :

- Options
- Futures

### Criteria for Evaluation

For evaluating an investment avenue, the following criteria are relevant.

- Rate of return
- Risk
- Marketability
- Tax shelter
- Convenience

### Rate of Return

The rate of return on a investment for a period (which is usually a period of one year) is defined as follows:

$$\text{Rate of return} = \frac{\text{Annual income} + (\text{ending price} - \text{Beginning price})}{\text{Beginning Price}}$$

### Risk

The rate of return from investments like equity shares, real estate, silver, and gold can vary rather widely. The risk of an investment refers to the variability of its rate of return: How much do individual outcomes deviate from the expected value? A simple measure of dispersion is the range of values, which is simply the difference between the highest and the lowest values. Other measures used commonly in finance are the follows:

- Variance : This is the means of the squares of deviations of individual returns around their average value
- Standard deviation : This is the square root of variance
- Beta : This reflects how volatile is the return from an investment relative to market swings

Summary Evaluation of various Investment Avenues

	Return		Risk	Marketability/ Liquidity	Tax shelter	Convenience
	Current Yield	Capital appreciation				
Equity Shares	Low	High	High	Fairly High	High	High
Non convertible Debentures	High	Negligible	Low	Average	Nil	High
Equity Schemes	Low	High	High	High	High	Very High
Debt Schemes	Moderate	Low	Low	High	No tax on dividends	Very High
Bank Deposits	Moderate	Nil	Negligible	High	Low	Very High
Public provident fund	Nil	Moderate	Nil	Average	Section 80C benefit	Very High
Life Insurance Policies	Nil	Moderate	Nil	Average	Section 80C benefit	Very High
Residential House	Moderate	Moderate	Negligible	Low	High	Fair
Gold and Silver	Nil	Moderate	Average	High	Nil	Average

Financial markets considerably reduce the cost of transacting. The two major costs associated with transacting are search costs and information costs. Search costs comprise explicit costs such as the expenses incurred on advertising when one wants to buy or sell an asset and implicit costs such as the effort and time one has to put in to locate a customer. Information costs refer to costs incurred in evaluating the investment merits of financial assets.

#### Objectives of the Study

To reduce the number of variables relating to various reasons influencing investment decision into a limited number of distinct factors.

#### Scope of the Study

Present study is intended to understand the awareness and behavior of investors, towards the purchase of shares, bonds and mutual funds in Virudhunagar district. The present study covers only the small /retail investors of corporate securities. The study will provide a clear picture of the impact of foreign institutional investors on Indian stock indices.

## Methodology

### Sources of Data

#### (a) Primary data

Primary data were collected by conducting a sample survey of investors. A well structured questionnaire was used for the collection of primary data. The sample survey was conducted during the period July - December 2013.

#### (b) Secondary Data

The study has depended on both secondary and primary sources of data. The secondary data were collected from published materials like books, journals, bulletins and magazines.

#### (c) Pretesting

The questionnaire was finalized after its pre testing. A specimen of questionnaire administered to the respondents is placed in the Appendix section of the present research report.

## Sampling Design

### Population

(i) All the investing people (both small scale and large scale investors) residing in different locations of Virudhunagar district, Tamil Nadu constitute the population.

(ii) **Sampling frame:** As per the records kept at the brokers' offices, as on 31<sup>st</sup> March 2013, it was found there were 2,899 retail equity investors in the five Investment Centers in Virudhunagar district.

(iii) **Sample size:** From the total registered investors of 2889, 278 investors were selected as the samples. The actual number of investors selected from each investment centre in Virudhunagar district was according to the strength of registered number of investors in each investment centre to the total number of registered investors in the study district.

(iv) **Sampling method:** Quota sampling method was used for the selection of required number of samples of 278.

$$N = 2,889$$

$$n = 278$$

### Research design

The research design of the present study is descriptive design of conclusive one.

## Factors Influencing Investment Decision

### Factor Analysis

Factor analysis, a multivariate interdependence statistical technique is a data reduction tool. The present researcher has applied the factor analysis for condensing the

various variables that influence the investors before investing on a particular kind of corporate security.

#### Details of Input Data and Variables

As the first step, sample investors 278 in number were requested to state to what an extent they agree or disagree with the 20 statements. To measure the degree of influence towards each of these 20 statements, Likert type 5 point numerical scale was used. Strongly agree carrying score 5, agree the score of 4, neither agree nor disagree carrying the score 3, disagree the score of 2, and strongly disagree the score of 1.

#### Details of Statistical Calculation and Decisions

##### Testing for Sampling Adequacy

The appropriateness of the factor model is tested before extracting the factors. The test statistic for sphericity is based on a chi-square transformation of the determinant of the correlation matrix. Another useful statistic is the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy. The correlation matrix was examined carefully and the two tests, viz., Bartlett's test of sphericity and Kaiser-Meyer-Olkin test were undertaken to test if it was judicious to proceed with factor analysis in the present study.

Hypothesis for testing:

$H_0$ : The factor analysis is not valid.

$H_1$ : The factor analysis is valid.

**TABLE 1 - KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		<b>.809</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	2589.509
	df	190
	Sig.	<b>.000</b>

The p - value (0.000) is less than the assumed significance value 0.05; so, the null hypothesis  $H_0$  is rejected, the alternate hypothesis  $H_1$  is accepted and hence the factor analysis is valid. Next, one may look at the KMO coefficient to cross check Bartlett's test. It can be seen 0.819 is more than 0.5, as this agrees with Bartlett's test, the factor analysis is valid.

#### Extraction of Factor: Principal Component Analysis (PCA)

There are two main stages in factor analysis. As the first stage, Principal Component Analysis was used for the initial extraction of the factors. PCA is a technique for forming a set of new variables that are linear combinations of the original set of variables. The new variables are called 'principal components' or factors.

**Stage I:**

It is necessary that the scale constructed and the factors / components extracted should be able to explain the variance in the data. To analyze this variance, one has to calculate the Eigen values, which will explain the variance among the factors. A low Eigen value (less than 1) contributes very little to the explanation of variances in the set of variables being analyzed.

**Table 2: Total Variance Explained with Factor Loading**

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	5.683	28.414	28.414	5.683	28.414	28.414	3.498	17.488	17.488
2	2.248	11.240	39.655	2.248	11.240	39.655	2.261	11.307	28.795
3	1.562	7.810	47.465	1.562	7.810	47.465	2.103	10.514	39.308
4	1.223	6.113	53.578	1.223	6.113	53.578	1.895	9.474	48.782
5	1.128	5.639	59.217	1.128	5.639	59.217	1.744	8.718	57.500
6	1.002	5.009	64.226	1.002	5.009	64.226	1.345	6.725	64.226
7	.916	4.581	68.807						
8	.837	4.187	72.994						
9	.717	3.585	76.578						
10	.634	3.169	79.748						
11	.603	3.017	82.765						
12	.544	2.722	85.487						
13	.482	2.410	87.898						
14	.477	2.386	90.284						
15	.411	2.053	92.336						
16	.371	1.855	94.191						
17	.333	1.664	95.855						
18	.325	1.626	97.480						
19	.271	1.354	98.834						
20	.233	1.166	100.000						

Extraction Method: Principal Component Analysis.

The higher the Eigen value of a factor, the larger is the amount of variance explained by the factor. By retaining only the variables with Eigen value greater than one,

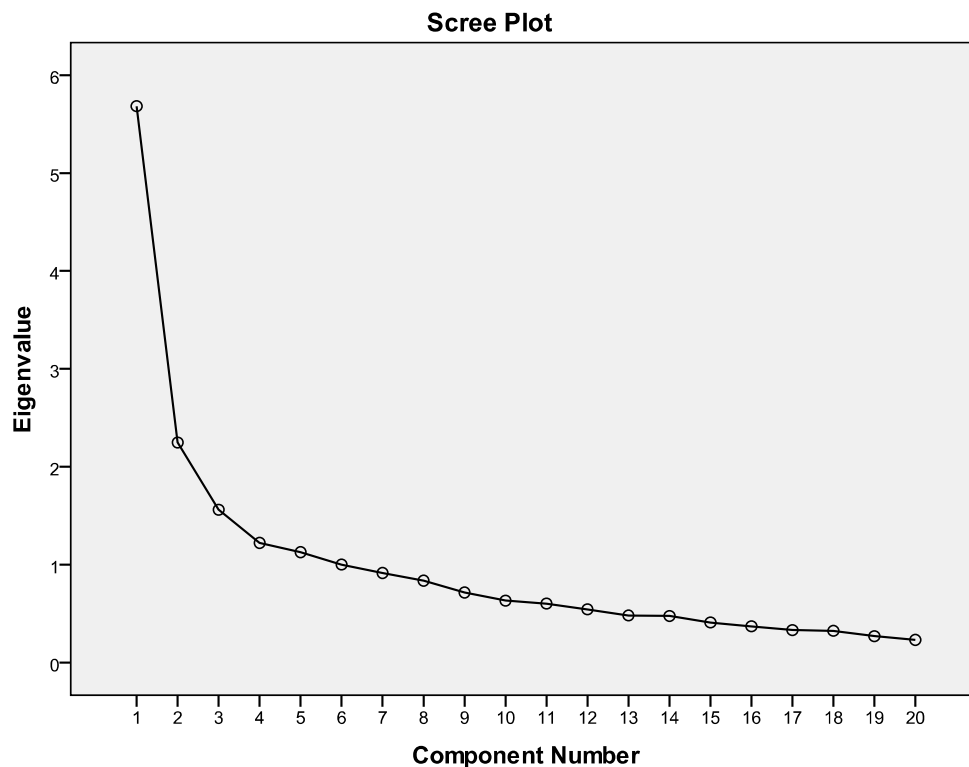


one can infer that 17.488 per cent of variance is explained by factor 1, 11.307 per cent of variance is explained by factor 2, 10.514 per cent of variance is explained by factor 3 and so on till factor 6 is explained in the above table .

Extraction sum of squared loadings is also used for measuring the factors influencing investors' preference for criteria before investing in various financial instruments. From the table 2, one could see that the six factors show a cumulative variance explanation of **64.226** per cent.

### Scree Plot

One can also use the scree plot. In this case, the scree starts with the 6<sup>th</sup> factor has actual influence over the factors that investors consider before investing on a particular financial instrument.



### Stage II:

In stage II of factor analysis, 'rotation of principal components is performed by varimax rotation method. After initial extraction, the plot has to be rotated (varimax

method) to get a better analysis. The results of varimax rotation of principal components are presented in the below table.

**Table 3: Rotated Component Matrix**

	Component					
	1	2	3	4	5	6
Education	0.773					
Age	0.749					
Marital	0.748					
Gender	0.741					
Status	0.549					
Income	0.533					
quick money		0.849				
Profit		0.764				
capital appreciation		0.719				
share brokers			0.828			
news channels			0.799			
friends n relatives			0.667			
less cumbersome				0.717		
easy liquidity				0.715		
Transferability				0.644		
market value					0.791	
Awareness					0.767	
Risk						0.79
Safety						0.659

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 3 exhibits the rotated factor loadings for the 20 statements (variables) indicating the factors influencing investors before investing in any financial instrument. It is clear from the table that all the 20 statements have been reduced to six factors, namely, F1, F2, F3, F4, F5 and F6. These Six factors with suitable names are given below.

F1 - Demographic profile

F2 - Economic consideration

F3 - Financial advisers

F4 - Convenience

F5 - Knowledge

F6 - Perception

The factors and variables with their corresponding Eigen value and percentage variance are presented in the following table.

**Table 4: Summarized Table**

Factors	Variables	Factor loadings	Eigen Value	Percent Variance
Demographic profile	Education	0.773	3.498	17.488
	Age	0.749		
	Marital	0.748		
	Gender	0.741		
	Status	0.549		
	Income	0.533		
Economic	quick money	0.849	2.261	11.307
	Profit	0.764		
	capital appreciation	0.719		
Financial Advisers	share brokers	0.828	2.103	10.514
	news channels	0.799		
	friends & relatives	0.667		
Convenience	less cumbersome	0.717	1.895	9.474
	easy liquidity	0.715		
	Transferability	0.644		
Knowledge	market value	0.791	1.744	8.718
	Awareness	0.767		
Perception	Risk	0.790	1.345	6.725
	Safety	0.659		

It is evident from the table that, among the demographic profile, Educational level of investors influences their investment decision with factor loading of 0.773. In the Economic factor, Quick money persuades for the investment with factor loading of 0.849. Among the Financial advisers, contacts with Share brokers carry the highest factor loading of 0.828. Similarly, in Convenience factor, less cumbersome procedure has the higher loading factor of 0.717 and in Knowledge factor, Market value with factor loading of 0.791. Finally, in Perception factor, Risk bearing capacity has the highest factor loading of 0.790. These are the statements with the higher loading on the factors of F1, F2, F3, F4, F5 and F6 respectively. Therefore, these are the identified six variables, which carry greater

influence over the relative factors that the investors consider before investing in any financial instrument.

### **Suggestions and Conclusion**

After labeling the factors, the factor scores of the factor analysis for the above six composite variables (factors), namely, demographic profile to perception were used in the following multivariate analysis of multiple regression - where these six factors were considered as the independent variables ( $X_s$ ) explaining variation in the dependent variable of risk bearing capacity of investors ( $Y$ ). The standardized variable values multiplied by the corresponding factor score co-efficient would give factor scores. After performing multiple regression, it was found that the demographic profile ( $X_1$ ), financial advisers ( $X_2$ ), awareness ( $X_6$ ) and convenience ( $X_4$ ) in that order, have greater influence over the dependent variable ( $Y$ ). Hence the investment makers are to focus on the financial advisers report.