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## PERCEPTUAL STUDY OF SYSTEMATIC INVESTMENT PLAN (SIP) A CASE STUDY OF SERVICE CLASS

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### ABSTRACT

*Systematic Investment Plan (SIP) is a disciplined way of investing, where you make regular investments according to a set calendar you create. Systematic investing is a time-tested discipline that makes it easy to invest automatically. This paper is an attempt to study the perception of service class people towards systematic investment plan. Factor analysis and cluster analysis have been used to study the same and found that service class have positive attitude towards investment in these plans.*

### INTRODUCTION

A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities. The income earned through these investments and the capital appreciation realized is shared by its unit holders in proportion to the number of units owned by them. Thus a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. (<http://www.amfiindia.com>). One of the options is to invest the money in stock market. But a common investor is not

informed and competent enough to understand the intricacies of stock market. This is where mutual funds come to resource.

A Systematic Investment Plan (SIP) is a disciplined way of investing, where you make regular investments according to a set calendar you create. Systematic investing, also known as rupee-cost averaging, can help you to put the power of compounding on your side. Systematic investing is a time-tested discipline that makes it easy to invest automatically. In investment, the best ideas are often the simplest. Investing regularly in small amounts can often lead to better results than investing in a lump sum.

(<http://www.franklintempletonindia.com/GeneralAccess/AccountServices/systematicinvest.asp>)

The basic idea of SIP is that it works like a recurring deposit of a bank. In case of recurring deposit of a bank a person invests a fixed amount every month. Similarly, in SIP, a person can invest a fixed amount periodically either monthly, quarterly, etc. As the amount is invested every month one gets the cost advantage. Investors should remember that no one can time the market, so it is always better to invest systematically to get the advantage of market conditions. In the current situation where there is uncertainty regarding the stock market SIP is very helpful. When the market is in downtrend the investor will receive more number of units and when market is in an uptrend, he will receive lesser number of units. So the investor can average out his buying cost. Further, if the investor has opted for the ECS or direct debit facility, he doesn't have to sign a cheque every time; money will be directly debited from his bank account on a particular date chosen by the investor.

(<http://www.indiastudychannel.com>)

### **BENEFITS OF SIP**

- Rupee cost averaging - SIPs are based on the concept of Rupee cost averaging. It helps investors to limit their purchases in rising markets and expand them in falling markets. It helps to tap the tops and bottoms of a stock market thus averaging out the cost per unit of a mutual fund scheme.
- Disciplined Saving - SIPs play a vital role in helping us improve our investment habits. It reminds investors of their commitment to contribute a specified amount to the pool at regular intervals. This makes investors more

disciplined in their approach towards investment which finally helps them in saving more money (as this monthly investment could otherwise be used for spending on unnecessary items).

- Compounding Benefits - Because of the power of compounding, investors who start early get the maximum advantage. SIPs have provided maximum returns when investments are made for a long period of time (i.e. for 3 to 5 years) and investors who follow this strategy gain from the compounding effect of returns on their investments.
- Risk-free from Timing - Many investors try to time the market and fail most of the time for the simple reason that it is virtually not possible for anybody to time the market. SIPs enable investors to capitalize on upside and downside movements in the market and be care-free from the tedious task of timing the market. Investors opting for SIPs don't need to worry about the daily movements in the market. (<http://www.appuonline.com/mf/sip.html>)

Various companies providing SIPs in India are LIC Mutual Fund, Unit Trust of India Mutual Fund, Prudential ICICI Mutual Fund, HDFC Mutual Fund, State Bank of India Mutual Fund, ABN AMRO mutual funds, Birla Sun Life Mutual Fund, Tata Mutual Fund, Reliance Mutual Fund, Bank of Baroda Mutual Fund (BOB Mutual Fund), Kotak Mahindra Mutual Fund, HSBC Mutual Fund, ING Vysya Mutual Fund, Canbank Mutual Fund, Sahara Mutual Fund, Standard Chartered Mutual Fund, Franklin Templeton India Mutual Fund and Morgan Stanley Mutual Fund India (<http://finance.indiamart.com>).

**REVIEW OF LITERATURE**

Barber et al. (1996) The Authors analyze the mutual fund purchase and sale decisions of over 30,000 households with accounts at a large U.S. discount broker for the six years ending in 1996. They document three primary results. Investors buy funds with strong past performance; over half of all fund purchases occur in funds ranked in the top quintile of past annual returns. Investors sell funds with strong past performance and are reluctant to sell their losing fund investments; they are twice as likely to sell a winning mutual fund rather than a losing mutual fund and, thus, nearly 40 percent of fund sales occur in funds ranked in the *top* quintile of past annual returns. Investors are sensitive to the form in which fund expenses are charged; though investors are less likely to buy funds with high transaction fees (e.g., broker commissions or front-end load fees), their purchases are relatively insensitive to a fund's operating expense ratio.

Reddy and Krishnu (2009) investigated investment culture among the people of a country which was referred as attitude, perception and willingness of individuals and institutions in placing their savings in various financial assets. The primary data was collected through a well structured schedule and stratified sampling technique was used for the said purpose. Total of 526 respondents were selected from backward regions of the state of Andhra Pradesh. Percentages and weighted average techniques were used for the analysis. At last, it may be concluded that investing funds was no longer confined to rich business people but also popular among rural poor people. Rate of interest offered by banks were too low which in turn instigate people to move towards capital market but for that, capital market have to be transparent and free from scams.

**RESEARCH METHODOLOGY**

The present study is mainly based on primary data collected from around 99 investors (service class) of SIP from Amritsar. These respondents were interviewed through a pretested, well structured questionnaire which was administered personally. Random sampling method has been used keeping in view the socio economic characteristics. Five point scale has been used for the said purpose ranging from strongly agree to strongly disagree. The investors selected for the present study belongs to service class. To find out the perception of respondents towards SIP, Factor Analysis and cluster analysis were used. Factor analysis is a set of techniques which, by analyzing correlations between variables, reduces their number into fewer factors which explains much of the original data, more economically (Nargundkar 2010). After extraction of factors, the cluster analysis was used to classify the various respondents into clusters and factor scores was used as input for cluster analysis. The survey was conducted during the period of April 2010 to July 2010. The demographic characteristics of the respondents depict that the majority of respondents in the present study were males (74%). As a prelude to cluster analysis for identifying perception patterns, a factor analysis was carried out on the 15 items related to perception. The initial factor analysis was designed to reduce the problem of multiple measures of similar constructs being more heavily weighted than constructs measured by fewer items (Furse, Girish and Stewart 1984)

**FACTOR ANALYSIS**

Explanatory factor analysis is used to identify the underlying constructs and investigate relationships among the key survey interval-scaled questions regarding perception towards SIP (A study of service

class). So factor analysis is applied to 15 statements. The following steps have been conducted to analyze the data:

1. The correlation matrix is computed and examined. It reveals that there are enough correlations to go ahead with factor analysis.
2. Kaiser-Meyer-Olkin Measure of Sampling Adequacy is computed which is found to be .708. It is

indicated that the sample is good enough for sampling.

3. The overall significance of correlation matrices is tested with Bartlett Test of Sphericity (approx chi square = 325.766 and significant at .000) provide support for validity of the factor analysis of the data set.

(TABLE – 1) (KMO AND BARTLETT TESTS)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.708
Bartlett's Test of Sphericity	Approx. Chi-Square	325.766
	Df	105
	Sig.	.000

Hence, all these three standards indicate that the data is suitable for factor analysis. Principal components analysis is employed for extracting factors.

#### ROTATION METHOD

Orthogonal rotation with Varimax was applied. The latent root criterion is used for extraction of factors. As per it, only the factors having latent roots or Eigen values greater than one are considered significant; all the factors with latent roots less than

one are considered insignificant and disregarded (Hair 1995).

There are only five factors having Eigen values exceeding one in our study. The percentage of total variance is used as an index to determine how well the total factor solution accounts for what the variables together represent. The index for present solution accounts for 60.898% of the total variation. It is pretty good figure and we lost only 39% approx. of the information content in our study.

**(TABLE-2) PRINCIPAL  
COMPONENT ANALYSIS  
WITH VARIMAX  
ROTATION ROTATED  
COMPONENT MATRIX**

variables Factors	Component					
	F1	F2	F3	F4	F5	Communalities
Use_sma	-.003	.048	.035	.111	.890	.808
Indi_bus	.224	.629	-.093	.208	.357	.625
Pvt_sec	.402	.320	.456	-.276	.309	.644
Tax_shie	.572	-.173	.007	.327	.233	.519
Close_en	.640	.206	.015	.176	-.215	.530
Publ_sec	.741	.052	-.025	-.062	-.055	.559
Ow_oth	.500	.215	.538	.144	-.054	.610
Trad_equ	-.087	.144	.784	.055	-.068	.651
Unsy_ris	.006	-.390	.574	.234	.344	.655
Prof_mgt	-.043	.144	.053	.820	.087	.706
Mf_large	.388	.237	.157	.674	.029	.686
Reg_body	.598	.150	.039	-.003	.273	.456
High_ret	.087	.442	.375	.391	.160	.523
Opn_ende	.282	.668	.030	.129	.026	.544
Sip_v_ot	-.111	.691	.303	.094	-.162	.617
Eigen value	3.804	1.583	1.446	1.237	1.065	
Cumulative % of variance	25.359	35.913	45.551	53.799	60.898	

### CRITERIA FOR THE SIGNIFICANCE OF FACTOR LOADINGS

In interpreting factors, a decision must be made regarding which factor loadings are worth considering. A factor loading

represents the correlation between an original variable and its factor. The criterion given by Hair (1995), where factor loading based on sample size is taken as the basis for decision about significant factor loading, was adopted. For our sample 100 respondents, a factor loading of .5 and above has been considered significant. All the 5 factors have been given appropriate names on the basis of variables represented in each case.

(TABLE-3)FACTOR NAMES AND LOADINGS

#### FACTOR: 1 SECURITY AND COST EFFECTIVENESS

Label	Variable	Loading
Publ_sec	Public sector schemes are more secure	.741
Close_en	Close ended schemes are less risky	.640
Reg_body	Regulatory bodies perform well	.598
Tax_shie	Higher tax shield should be provided for mutual funds	.572

#### FACTOR: 2 EFFECTIVENESS IN INDIAN ECONOMY

Label	Variable	Loading
Sip_v_ot	SIP schemes are better than one time investment	.691
Open_end	Open ended MF should be listed on stock exchange	.668
Indi_bus	SIP schemes are healthy for Indian business environment	.629
High_Ret	Sip schemes give high returns than other	.442

#### FACTOR: 3 BETTER INVESTMENT OPTION

Label	Variable	Loading
Trad_equ	SIP investment is better than directly trading in equity	.784
Unsy_ris	SIP schemes helps in reducing unsystematic risk	.574
Ow_oth	SIP schemes are like owing any other asset	.538
Pvt_sec	Private sector SIP schemes are better	.465

**FACTOR: 4 PROFESSIONAL MANAGEMENT**

Label	Variable	Loading
Prof_mgt	Sip schemes ensure professional management of funds	.820
Mf_large	Mutual fund with large corpus perform well	.674

**FACTOR: 5 USEFUL FOR SMALL INVESTORS**

Label	Variable	Loading
Use_sma	Sip scheme is useful for small investor	.890

Factor scores for each of the 100 subjects were computed and provided the basis for a clustering procedure. Cluster analysis is a class of techniques used to classify objects or cases into relatively homogenous groups called clusters (Malhotra 2010). Wards hierarchical clustering method with Euclidean distances was used to find out initial number of cluster and then apply K Means to find out cluster membership (Nargundkar 2010). In hierarchical clustering, the distances at which clusters are combined can be used as criteria. The

information can be obtained from the agglomeration schedule (Malhotra 2010). In our case, the difference of values of coefficients column in agglomeration schedule is highest between 94<sup>th</sup> and 95<sup>th</sup> respondent so hence we get 6 cluster solutions. Then we proceed to K-Means and found out the characteristics of these clusters so formed. Table for cluster membership revealed that 3<sup>rd</sup> cluster is most important as it contains 60 respondents and then 4<sup>th</sup> cluster which contains 16 members.

**FINAL CLUSTER CENTERS  
(TABLE-4)**

Factors	Clusters					
	1	2	3	4	5	6
Security and Cost Effectiveness	-.52549	1.84810	.13349	-.28144	- 1.28610	1.10356
Effectiveness in Indian Economy	.74366	1.39451	.32775	- 1.47932	-.16480	- 1.06651



Better Investment Option	-.86961	-4.43174	.31106	-.35986	-.10448	.54149
Professional Management	-.88241	.30736	.37727	.23874	-2.28421	-1.02586
Useful for Small Investors	-.88218	.88188	.07264	.60308	1.37330	-1.48574

**TABLE-5 (CLUSTER MEMBERSHIP)**

Clusters	Number of Respondents
Cluster 1	13
Cluster 2	1
Cluster 3	60
Cluster 4	16
Cluster 5	6
Cluster 6	13

Now we will briefly describe each of six clusters as follows:

**CLUSTER-1**

13% of respondents belong to this cluster. People belonging to this cluster think that SIP provides professionalized management of their funds and they think that systematic investment plans are less risky for small investors. They have a positive attitude towards SIP as they think it is a good investment option and effective in Indian economy. It is moderately cost effective financial instrument.

**CLUSTER-2**

1% of respondents belong to this cluster. Person belonging to this cluster has comparatively positive attitude towards sip

and they consider it as a good investment option but they think that it does not ensure professionalized management.

**CLUSTER-3**

60% of respondents belong to this cluster. People belonging to this cluster have high interest in spending their savings in SIP schemes. They consider it as a good investment tool as every loading is very high in this cluster. They think that it is not useful for small investors. They consider it as a risky investment tool for them but overall they have positive attitude towards SIP.

**CLUSTER-4**

16% of respondents belong to this cluster. People belonging to this cluster think that



systematic investment plans are effective in Indian environment but they don't consider it safer, secure and don't think it as good investment option.

#### CLUSTER-5

6% of respondents belong to this cluster. People belonging to this cluster thinks that SIP ensures professionalized management

of funds and they are secure and useful for small investors.

#### CLUSTER-6

13% of respondents belong to this cluster. People belonging to this cluster moderately perceive SIP as a cost effective instrument and its effectiveness in Indian economy.

(TABLE 6) ANOVA TABLE

	Cluster	Error	F		Sig.	
	Mean Square	df	Mean Square	df		
A-R factor score 1	4.653	5	.806	94	5.775	.000
A-R factor score 2	11.505	5	.441	94	26.077	.000
A-R factor score 3	7.830	5	.637	94	12.299	.000
A-R factor score 4	9.371	5	.555	94	16.892	.000
A-R factor score 5	7.564	5	.651	94	11.621	.000

Interpretation- Anova table also showed that each factor is significant and f value is greater than 2 in each case.

#### SUMMARY AND CONCLUSION

It can be concluded by saying that people are well aware about mutual funds and investment plans. Maximum number of respondents belongs to the age group of 20-35 years who regularly invests in SIP. The main factors that are extracted from the data are security and cost effectiveness, effectiveness in Indian economy, better investment option, professional management and useful for small investors. In general

people have positive attitude towards SIP schemes. Results of cluster analysis clearly showed that 60% of the people have quiet positive outlook towards SIP schemes. They consider it as a good investment tool. They think that it is not useful for small investors. The reasons for such an attitude may be volatility of stock market. They consider it as a risky investment tool for them. People still have the question in their mind about security and safety of SIP schemes as it works in highly volatile capital market. Returns from these schemes are worth mentioning but security and safety poses question mark in its effectiveness in Indian market.

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