

Discretionary Savings and Investment Behaviour of Middle Class Households in India: Empirical Evidence

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Abstract

Aims: The study is intended to understand the relationship between the saving and investment behaviour among middle class households. Secondly, dependency of discretionary savings and investment behaviour on select control variables of middle class households also been assessed.

Research Design & Approach: The study captured descriptive research approach based on 200 respondents (100 Male & 100 Female) of different age groups, educational qualifications, belonging to joint or nuclear family types; differentiated on the basis of income & employment. The questionnaire used 14 statements of saving and investment behaviour adopted from Bhushan (2014) and Lusardi (2008) which measures the response on 5-Point Likert Scale. Two different important statistics namely Pearson Correlation Matrix and Two- Way ANOVA have been used in accordance with the needs of the data set and specified objectives.

Results & Implications: Pearson correlation technique defines that a total of 91 combinations of variables, around 39 are found to be highly significant ($p < .01$). Twelve (12) of them were found significant at 0.05 level ($p < .05$) and remaining 40 are found to be insignificant ($p > .05$). Very few cases strong positive correlation can be seen in between indicators of discretionary savings and investment behaviour. Saving behaviour is not dependent on type of employment (main effect) and monthly income (main effect) is found statistically insignificant at 5% level of significance, whereas in case of investment behaviour (Dependent Variable), only monthly income shows statistically significant. Interaction effects in both the case found statistically insignificant. This paper examined into the understanding of savings and investment behaviour of middle class households which can be of great relevance to the policy makers and the government to anticipate and formulate strategies to respond the varying saving and investment behaviour of the middle class investors.

Keywords: Savings and Investment Behaviour, Middle Class Households, Banking Service, Indian Economy, and Financial Literacy

JEL Code: E21, E22, and N3

Study Motivation

The difference between total saving and committed saving can be defined as discretionary saving. In general this is much smaller than committed saving, but much more volatile. Savings and investment behaviour is influenced by sociological, psychological, demographical and economic factors. It is widely accepted in literature that various economic factors (size of income, disposable and discretionary income), individual differences, and family habits etc. strongly influence the saving and investment behaviour of Indian Households. Banking Services & Savings instruments offer a safer option for storing wealth than keeping money at home and can also be adopted as mechanisms to reduce the temptation of utilizing cash at hand; particularly for those who have present-based preferences (Abebe et al., 2016). India is truly a bright spot among emerging markets and it is also the fastest-growing economy in BRICS now and has exited the pejorative club of 'Fragile Five' (CRISIL, 2015). The ongoing disinflation is freeing up real incomes, and interest rates— especially on small savings - turned positive in real terms. The significant improvement in corporate profitability, essentially on account of saving on input costs and more recently on

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sales growth, is expected to boost corporate saving and translate into investment spending going forward (RBI, 2016). Record inflows of foreign direct investment and the surge of initial public offerings after a four-year lull seem to be providing lead indications of this tipping point. The total amount of Financial Savings made by households was Rs 8,194 billion in 2014. This is an increase of 18% when compared to financial savings of 2013. The total amount of savings in physical assets was at Rs 12,123 billion, a decrease of around 5% when compared to previous year's data. It is very clear that households' savings are routed to investments in physical assets but the gap between financial savings and physical assets is slowly shrinking, which is a very good sign for Indian Economy (Reddy, 2015).

There is no official definition of the middle class in Indian economy. The middle class not only categorises an income group, but also a political and social class and a consumer market. Thus, quantifying this demographic group can yield varying results (DBR, 2009). India accounts for 3% of the global middle class with 23.6 million people. It has the lowest threshold for a person to be considered middle class with annual wealth of \$13,662 (Rs 737,748 or Rs 61,480 per month). With 23.6 million people, the Indian middle class holds almost a quarter of the country's wealth at \$780 billion (Rs. 5,070,000 crore). An increase in discretionary income is likely to boost household spending on goods like consumer durables and automobiles & services such as hotels and restaurants over 2010-11 to 2015-16 (CRISIL, 2011).

One key point to ensuring that the link between middle class growth and Indian economic growth continues to strengthen is providing the right education and skills to

the Indian middle class and creating enough opportunities in society to absorb these employees. From 1990 to 2000, a very high proportion of Indian households' savings were invested in financial assets when compared to Physical assets. From 2000 to 2007, more household savings were routed to physical assets (Table: I). Interestingly in 2007-08, more investments were made in financial assets. This shows that retails/small investors participated in stock markets when their valuations are at peak. The markets eventually crashed in 2008. From 2008 to 2014, physical savings are preferred to financial savings (Reddy, 2015). More households have to be brought into the financial system. We should aim for a healthy mix of financial assets and physical assets. Channelling households' savings into the financial markets is imperative. Corroborating earlier findings, our results showed that technical aspects of service quality increased customers' satisfaction (Bitner et al., 2000). Indian banks are adopting latest technology to meet the challenges of speed, efficiency and changing customer demands and provide value added services to their customers. It includes e-banking systems and ATMs. Under the Business Facilitator (BF) model, banks utilize the network of intermediaries such as the NGOs, post offices for banking services such as creating awareness and educating on the financial products, collecting and processing information of borrowers, selling banking products and financial services to rural households, etc. These user-friendly self-service technologies help customers to perform banking transactions. It helps in obtaining information on purchasing financial products. Below table gives us details about various investment avenues under which households' savings have been invested.

Table 1: Financial Assets of the Household Sector (in Billion Rs.)

Year	Currency	Bank Deposits	Non-Banking Deposits	Life Insurance Funds	Provident & Pension Funds	Shares & Debentures	Total Financial Assets
2009-10	969.40	3981.41	185.16	2598.21	1298.49	448.41	9897.98
2010-11	1371.31	5482.99	50.99	2101.02	1411.39	17.29	10798.67
2011-12	1062.42	5259.70	100.21	1956.73	956.92	173.36	9335.43
2012-13	1,115.21	5,750.80	172.66	1,820.97	1,240.20	437.90	10,244.52
2013-14	1,019.19	7,741.76	305.67	2,052.22	1,362.23	323.53	12,792.54
2014-15	1,317.11	5,792.95	274.36	2,347.16	2,008.35	570.73	12,356.22

Source: Handbook of Statistics on the Indian Economy-2015, RBI.

Note: (i) life Insurance Fund includes Central or State Government employees' insurance funds and postal insurance funds. (ii) Shares and debentures include investment in shares and debentures of credit/ non credit societies, public sector bonds and mutual funds (other than specified undertaking of the UTI).

Empirical Review

Indian Evidence: The Indian Household Investors Survey

The Indian Household Investors Survey (2005) conducted by the Society for Capital Markets Research & Development, Delhi emphasises the fact that investment preferences among household investors have important socio economic applications. Such preferences influence the direction in which, and the channels through which, household financial savings would flow. Verma (2007) in his study finds that savings unambiguously determines investment in both the short run and long run. Krishnamoorthy (2008) in his study concluded that all salaried people were aware of bank deposits, PF schemes, insurance schemes, post office savings schemes, gold and however only few were aware of UTI. The middle class is also increasing its share of financial investments and thus providing new sources of capital for companies. Although household savings and investment rates as a % of GDP have remained relatively the same over the past several years, investment in shares and bonds has risen over the past several years. As the middle class recovers from the crisis, this trend should continue (DBR, 2010). Another Indian study of Bahl (2012) showed that how much women were aware about the investment benefits and whether they invest their money or not, and if invested, how much money is invested by them. Bhushan (2014) in his paper stated that majority of the respondents park their money in traditional and safe investment avenues. The share of non-financial assets varies significantly between rural and urban areas in India, by household characteristics (such as the education of the household head and the number of children), and by wealth (Badrinza et al., 2016).

Evidence from other Asian Countries

Al-Tamimi (2006) investigated the most and least influencing factors on the United Arab Emirates investors' behaviour. Factors like corporate earnings get rich quickly,

stock marketability, past performance of the firm's stock, government holdings, and the creation of organized financial markets, religious reasons and family members' opinions were identified as the most influencing investment factors by the author. Horioka and Wan (2007) in their research work established the fact that China's household saving rate has been high and rising and that the main determinants of variations are the lagged saving rate, the income growth rate, the real interest rate and the inflation rate. However, they found that the variables relating to the age structure of the population usually do not have a significant impact on the household saving rate. The findings of the study of Shrestha (2010) suggest that there is a need to focus on development policy which increases productive base of the economy in order to increase income growth and reduce unemployment in Nepal. It is also important to note that the real interest rates have a positive influence on the private savings and can be taken as an important policy variable.

Evidence from Western Countries

Pitelis (1984) supported the ideas that the household sector does not save out of their current discretionary income. They only appear to save out of their changing income, and in the form of contractual saving such as Life insurance and Pension Funds. Individuals do not always act according to economic theory, however, particularly under conditions of risk and uncertainty (Clark and Strauss 2008), a position supported by more recent empirical research. Household savings are inextricably linked with economic growth. In models ranging from simple Harrod-Domar formulations (Harrod, 1939; Domar, 1946) to more sophisticated formulations such as Lucas (1988); Romer (1986, 1989) and Mankiw, Romer and Weil (1992), savings directly affect economic growth, when transformed into productive investments in physical and human capital (Deaton, 2012). The international evidence suggests that domestic savings are particularly important in this context, as domestic savings and domestic investment rates appear to be highly correlated (Feldstein and Horioka, 1980). The study of Euwals et al. (2000) concerning discretionary household of two members' wealth found evidence for an impact of the husband's attitude, but no evidence for an impact of the wife's attitude. African economy is suffering from a supply side crisis and new investments by the corporate sector are required to improve the situation (Luis, 2016). The study of Prinsloo (2000) stated that Private households in Africa

have been supplying a large volume of funds to financial markets, in this way probably dampening the relatively high real interest rates. The high level of inflation in South Africa over the long term caused distortions which encouraged people to concentrate their personal saving in risk-avoiding institutions and financial assets in preference to riskier undertakings and fixed assets.

Burns & Dwyer, (2007) advocated in their study in New Zealand that adequate income and money management skills are important precursors to sound saving and investment behaviours. They also reported that the difference between household disposable income and household consumption has declined over the last two decades and now appears to be negative. On the other hand, household wealth has risen. Arent (2012) found evidence for Western Germany that a lower income expectation increases the overall saving rate. Adult financial literacy survey (2011) results revealed strong positive associations between age and most of the behavioural indicators from the age group 25-34 while no such association was observed for age group 18-24. Household income also showed a relatively strong positive association with financial control such as having savings and investments. Additionally, education had a strong positive association with choosing financial products and staying informed (ANZ, 2011). From the study of Clark et al. (2013) reveals that knowledge of Australian investor behaviour and particularly their decisions regarding investment savings and changes in their retirement savings can be improved. There appears to be some key demographic factors (gender, age, balance, and income) associated with behaviour. The most compelling finding is the lack of activity.

Research Gap and Problem

In the past, traditional financial products were offered in India through government initiatives by Public Sector Banks (PSBs) is deposit account, credit account, Life Insurance Corporation (LIC), and postal department (recurring deposit, National Saving Certificate, Kisan Vikas Patra). However, in recent years with the advent of liberalization of financial services industry, diverse financial products have been introduced through participation of private and foreign entities in addition to the public sector enterprises. These include products such as debit and credit cards by banks, open-end and closed-end mutual fund schemes like as Exchange Traded Funds (ETFs), Index Funds, Systematic Investment Plans (SIP),

sector funds, etc., life and non-life insurance schemes (Unit Linked Investment Plans (ULIPs), pension plans, children education plans, etc.). It further includes shares and debt securities offered by various entities, investments in which are mainly facilitated by the brokerage houses. This has led to rising competition through introduction of innovative and attractive products, regulatory initiatives and growth in the investor base along with increased marketing activities in the financial sector.

The review highlights that consumers generally lack any detailed knowledge or understanding of pensions and investments, even though they are increasingly expected to make their own financial provision for retirement. They also tend to be risk averse (women in particular), and seek to minimise losses rather than maximise gains, even in relation to long-term investments such as a pension. While many people may rely on professional financial advice to make pension purchase and investment decisions, research evidence from the UK and Australia has highlighted concerns about the quality of advice provided to individuals (e.g. from financial advisers) (Collard, 2009). Most consumers in India do not work in the organised sector and their wellbeing cannot be discerned from salary and wages data maintained by corporate houses. Many are not even salaried, but are self-employed or casual wage earners. Indian households have come a long way in the post-reform period, absorbing dramatic changes to traditional thought processes governing consumption and savings. It is necessary to map households in terms of their earning, spending and saving patterns. The literature survey is disclosing the lack of sufficient work done in the area that relates the saving and investment behaviour to the financial awareness. There is highly dearth of comprehensive study that signifies the saving and investment pattern of Indian households. Most of the part of evidence available is done in western countries except Bhushan (2014), Badrinza et al. (2016) & few others.

Objectives and Hypotheses

The study has the following objectives:

1. To find out the relationship between the saving and investment behaviour among middle class households; and
2. To study the impact of demographic variables on saving and investment behaviour.

	Mean	SD	SES	ES	RSC	SBS	KTS	CDE	IS	RI	EFP	CFP	GI	SWD	MRST	MRLT
V. Keep track of spending (KTS)	3.81	1.058	.133 (.061)	.193** (.006)	.257** (.000)	.482** (.000)	1									
VI. Cutting down exps (CDE)	3.97	.899	.340** (.000)	.296** (.000)	.194** (.006)	.374** (.000)	.257** (.000)	1								
VII. Insisting to save (IS)	3.91	.990	.177* (.012)	.089 (.208)	.145* (.040)	.211** (.003)	.107 .130	.307** (.000)	1							
VIII. Risk for investment (RI)	3.30	1.240	.067 (.344)	.040 (.576)	.064 (.368)	.068 (.336)	.028 (.690)	.073 (.307)	-.026 (.717)	1						
IX. Evaluation of Financial Products (EFP)	3.98	.835	.067 (.343)	.144* (.042)	.185** (.009)	.093 .189	.125 (.077)	.186** (.008)	.143** (.044)	.230** (.001)	1					
X. Comparison of Financial Product (CFP)	3.87	.965	.076 (.282)	.173* (.014)	.159* (.025)	.116 .102	.157* (.027)	.186** (.008)	.218** (.002)	.202** (.004)	.681** (.000)	1				
XI. Gathering Information (GI)	3.88	.961	.063 (.377)	.067 (.346)	.183** (.009)	.100 (.160)	.105 (.139)	.245** (.000)	.146* (.039)	.234** (.001)	.584** (.000)	.653** (.000)	1			
XII. Satisfaction with decisions (SWD)	3.60	1.008	-.024 (.736)	.071 (.316)	.147* (.038)	.140* (.049)	.056 .434	.062 .382	.264** (.000)	.161* (.023)	.394** (.000)	.358** (.000)	.363** (.000)	1		
XIII. Max return in Short term (MRST)	2.64	1.139	-.104 (.141)	.056 (.433)	.079 (.265)	-.146* (.039)	-.016 (.821)	.076 (.286)	.049 (.488)	.071 (.319)	.154* (.029)	.124 (.080)	.114 (.108)	.117 (.098)	1	
XIV. Max return in Long term (MRLT)	2.68	1.202	-.047 (.509)	-.022 (.760)	.099 (.165)	-.135 (.057)	.035 (.623)	-.006 (.935)	.088 (.214)	.257** (.000)	.302** (.000)	.235** (.001)	.304** (.000)	.251** (.000)	.417** (.000)	1

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at 0.05 the level (2-tailed).

In a study of Evans (1996) suggests describing the correlation strength verbally for the absolute value of 'r', as he considers it an effect size. A strong positive correlation can be seen in EFP & CFP ($r=.681$, $p<.001$) and CFP & GI ($r=.653$, $p<.001$). A moderate positive relationship (Table: III) is found between SES & ES ($r=.464$, $p<.001$), SBS & KTS ($r=.482$, $p<.001$), EFP & GI ($r=.584$, $p<.001$) and MRST & MRLT ($r=.417$, $p<.001$).

A very weak negative correlation also can be observed in SES & SWD ($r=-.024$, $p>.05$), SES & MRST ($r=-.104$, $p>.05$) SES & MRLT ($r=-.047$, $p>.05$), SBS & MRST ($r=-.146$, $p<.01$), SBS & MRLT ($r=-.135$, $p>.05$), KTS & MRST ($r=-.016$, $p>.05$), CDE & MRLT ($r=-.006$, $p>.05$) & IS & RI ($r=-.026$, $p>.717$). Rest of the cases show a

positive weak or very weak correlation. From a total of 91 combinations of variables, 39 are found to be highly significant ($p<.01$). 12 of them (i.e. SES-IS, ES-EFP, ES-CFP, RSC-IS, RSC-SWD, SBS-SWD, SBS-MRST, KTS-CFP, IS-EFP, IS-GI, RI-SWD & EFP-MRST) were found significant at 0.05 level ($p<.05$) and remaining 40 are found to be not significant ($p>.05$).

Results of Two-way ANOVA

The actual result of the two-way ANOVA – namely, whether either of the two independent variables or their interaction is statistically significant – is shown in the **Tests of Between-Subjects Effects** table, as shown below:

Table 4: Test of Between-Subject Effects (Dependent Variable: Saving Behaviour)

Source	Type III Sum of Squares	Degree of Freedom	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	8.196*	19	.431	1.327	.171	.123
Intercept	1118.399	1	1118.399	3439.213	.000	.950
Type of Employment	.789	3	.263	.809	.491	.013
Monthly Income	1.306	4	.327	1.004	.407	.022

Source	Type III Sum of Squares	Degree of Freedom	Mean Square	F	Sig.	Partial Eta Squared
Type of Employment * Monthly Income	5.037	12	.420	1.291	.227	.079
Error	58.534	180	.325	*R Squared=.123 (adjusted R squared = .030)		
Levene's Test of Equality of Error Variances*						
F	df1	df2			Sig.	
.902	19	180			.581	

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

*Design: Intercept + type of Employment + Monthly Income + type of Employment * Monthly Income

A two-way between-groups analysis of variance was conducted to explore the impact of Type of Employment and Monthly Income on Saving Behaviour. Subjects were divided into 4 groups according to their employment type (Group 1: Government employees; Group 2: Private employees; Group 3: Self Employed & Group 4: Not employed). According to Monthly Income subjects are

categorised into 5 groups (Group 1: below 5000; Group 2: 5000-10,000; Group 3: 10,000-15,000; Group 4: 15,000-20,000 & Group 5: Above 20,000). The main effect for type of employment [$F(3, 180) = .809, p = .491$], Monthly Income [$F(4, 180) = 1.004, p = .407$] and the interaction effect [$F(12, 180) = 1.291, p = .227$] did not reach statistical significance (Table-IV).

Table 5: Test of Between-Subject Effects (Dependent variable: Investment Behaviour)

Source	Type III Sum of Squares	Degree of Freedom	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	14.860*	19	.782	2.029	.009	.176
Intercept	903.427	1	903.427	2344.352	.000	.929
Type of employment	1.198	3	.399	1.036	.378	.017
Monthly Income	4.255	4	1.064	2.761	.029	.058
Type of employment * Monthly Income	5.542	12	.462	1.198	.287	.074
Error	69.365	180	.385	*R Squared=.176 (adjusted R squared=.089)		
Levene's Test of Equality of Error Variances*						
F	df1	df2			Sig.	
1.285	19	180			.198	

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

*Design: Intercept + type of employment + monthly income + type of employment * monthly income

There is a statistically significant main effect on Investment Behaviour for Monthly Income [$F(4, 180) = 2.761, p = .029$]; however, the effect size is moderate (partial eta squared=.058). The main effect for type of employment [$F(3, 180) = 1.036, p = .378$] and the interaction effect [$F(12, 180) = 1.198, p = .287$] did not reach statistical significance (Table: V).

Implications of the Study

From the above analysis it can be said that 'Type of Employment' & 'Monthly Income' along with their combined effect, do not have any significant effect on the 'Saving Behaviour' of the respondents; whereas, 'Investment Behaviour' of respondents is only affected significantly by individual effect of 'Monthly Income'.

The results of Gholam et al. (2013) also show that the investment biases in individual investors have relationship with personal characteristics meaningfully and with some of the demographic variables weakly while Geetha & Ramesh (2012) found that demographic factors have a significant influence over some of the investment decision elements. The case study of Raza (2014) suggests that investors' perceptions have a strong and significant impact on financial decision making of the investors. In their study, Sireesha & Laxmi (2013) depicted that gender, age and friends have more impact on the investment decisions of the respondents. The study of Issahaku (2011) suggested that age composition and assets do not have a major effect on saving while levels of income, occupation and expenditure has.

Saving rate of a country is one of the key indicators that can measure the economic development since it is directly or indirectly related to the investment rate and capacity of banking system for lending purposes. The saving and investment behaviour of middle class households reflect their attitude which confirms the desirable financial well-being. A positive attitude towards saving and investment practices will result into better individual standard of living and influence the economic growth. Today the financial services sector has become highly diversified offering the investor with a wide range of investment avenues. With proper investment strategies and financial planning, investor can increase personal wealth which will contribute to higher economic growth. The individual's decision to invest is greatly influenced by the various benefits each individual wants from owning a particular investment. This paper investigated into the understanding of savings and investment behaviour of middle class households which can be of great relevance to the policy makers, the investment agencies, managers and researchers as well to anticipate and formulate strategies to respond the varying behaviour of the investors from middle class.

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