

Factors affecting expenses and investment pattern of households. A study of NCR

Dr. Meenu Baliyan
Assistant Professor
IMSEC Ghaziabad

Dr. Girish Jain
Associate Professor
BIMTECH Greater Noida

Abstract

Saving is that amount which is being unused and then individual have an option to consume it or to invest it into the market so that he can earn return on it. Investment is putting money into an asset with the belief of capital appreciation, dividends, or interest earnings. In this study we have considered different type of expenses like committed and non committed expenses. This paper will examined the different factors which affect the expenditure pattern of households and how different variables helps in households savings

Key Words: Investment, Capital appreciation, portfolio.

Introduction

In today's time savings is even more active than it was only a decade ago. Now individual are more conscious about the uncertainty associated with their investment. To make their decision successful while doing the investment is to make diversification of the investment, choose some avenues for short period and some for long time maturity. However, these investments are not entirely secure from risks, so one should try to understand what kind of risks are related to them before investing into that security. Due to insufficient literacy about the stock working makes the intolerant point of view of investing in the stock market (purchasing when the propensity to increase or selling when it tends to decrease) effect. To get more insight into the features of each avenues of investment you must have enough financial information. Saving have a very important position in economic growth as it involves mobilization of capital, which is as a result invested with an aim to speed up the growth process. So the knowledge of savings behavior is therefore critical in planning the strategy procedures. As a result, the study has investigated the determinants of household savings behavior.

The significance of savings as a means to provide household monetary security has been widely recognized by researchers and practitioners (Rha, Montalto, & Hanna, 2006). Protective savings provide a tragedy cushion for households in case of impulsive income loss. It is also likely that households put limitation for their current consumption to save for purchasing a house, or for their children's education.]

Saving plays a very significant societal role as a source of future sustainability and development

Literature review

Baliyan M (Baliyan et al.,2016) study about the determinants of consumption of household and found that the demographic factors like age , occupation income and qualification have a major influence on consumption.

The perception of investor's behavior for online trading. The study identified that Indian investors are more conservative, middle age, educated and have sufficient income base examined by (Balaji *et al.*.2014).

The behavior of individual investor in stock market, particularly perception and the attitude of the investor's with special reference to stock market examined by (Rakesh *et al.* , 2014). The result indicates that income and savings are two major factors which affect the decisions of investors.

Palanivelu (Palanivelu *et al.*,2013) found that there are some factors like financial awareness education and individual age etc. made important impact on salaried household while taking the decision of investment options

Puneet (Bhushan *et al.*,2013) studied that women are risk averse while choosing the investment options and the same thing is visible while choosing for life insurance FD and health insurance.

Dr. Bhawana (Bhardwaj *et al.*,2013) studied about the different pattern of income ,saving and consumptions of employees. and concluded by cross-tabulation of data knowledge about securities and income level reveals that as the income of the employee's increases, awareness about securities also increases.

The studied about the awareness of the investors regarding different investments options available into the market and he suggests that the more awareness should be there to increase the investment (Alagu Pandian *et al.* , 2013). He found that the mainly investment in banks and in gold are attractive for the investment purpose because of safety of the fund.

Palanivelu and Chandrakumar (2013) in their study identified that certain factors like education level, awareness about the current financial system, age of investors etc. made significant impact on salaried employees while deciding the investment avenues.

V.R.Palanivelu & K.Chandrakumar (2013) highlights that certain factors of salaried employees like education level, awareness about the current financial system, age of investors

Meenakshi Chaturvedi & Shruti Khare (2012)found in their study that household investor prefer Bank saving for investment and then invest in small saving scheme.

Objectives:

- To study the expenditure pattern of household.
- To study the pattern of investment made by households.

Based on the research objectives which are identified, following hypothesis are formed

1. (a) H_{O1} There is no difference among expenditure pattern of households.

H_{a1} : Expenditure pattern of households are different.

(b) H_{O1} : there is no difference among the committed expenses of households.

H_{a1} : Committed expenses of households are different

(c) H_{O1} : there is no difference among the non committed expenses of households.

H_{a1} : Non committed expenses of households are different.

2. (a) H_{O1} Households are indifferent in attitude while taking the decision of investment.

H_{a1} : Households are different in attitude while taking the decision of investment.

Summary of Objectives, Variables and Tools Used in the Study

Objectives	Independent variables	Dependent variables	Tool
Income and expenditure pattern of households	Demographic variables (Age, Gender, Qualification, Occupation, income, Dependency ratio)	Monthly Expenses	Multiple Regression ANOVA
The pattern investment made by household	Demographic variables (Age, Gender, Qualification, Occupation, income, Dependency ratio)	Investment Avenues(Debts, Mutual funds and equities, Real estate and commodities	Multiple Regression ANOVA

Data interpretation:

This paper examines the pattern of expenses of households of selected districts of NCR. Researcher has used by using linear regression method, ANOVA. The result of estimated linear regression model of the saving behavior of the households in the selected study area. This analysis has been carried out for the entire sample of 400 observations collected from the selected Ghaziabad, Noida Greater Noida and Delhi selected district of NCR. The study selected seven independent variables such as Age Marital status, Gender, House type, Number of family members, Primary occupation, and Educational qualification regressed with one dependent variable i.e. expenses pattern of households.

Result of multiple regression of Demographic variables and Expenses

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.37	.61	.61	.658
2	.44	.67	.67	.658
3	.49	.70	.70	.659
4	.62	.79	.79	.660

The table shows that the multiple R square values depict a highly positive correlation between demographic factors and total expenses. The reliability of the estimates depends upon the closeness of the relationship. The closer R is to +1 or -1, the closer the relationship (Gupta, S.P., 2001).

Multiple regressions for committed expenses

Stone & Rowe (1966), explain that household's expenditure majorly categorized in committed and non committed expenditure.

Model Summary For committed expenses

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.537	.733	.736	.198

Source: Compiled by researcher

- a. Predictors: (Constant), Dependency ration, gender, Occupation, qualification, marital status, Gross Income, age

The table shows that the multiple R square values (0.733) depict a highly positive correlation between demographic factors and total expenses. The reliability of the estimates depends upon the closeness of the relationship.

The square of the correlation coefficient (R^2) 0.733, called coefficient of determination is a convenient way of interpreting the value of R. R^2 gives the percentage variation in the dependent variable as explained by the independent variable (Gupta, S.P., 2001). Further, the greater the value of R^2 , the better is the regression line fit and the more useful the regression equation as a predictive device for the estimation of the dependent variable from the values of the independent variables (Gupta, S.P., 2001)

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Gender	Between Groups	1.41	3.00	0.47	2.60	0.050**
	Within Groups	71.49	395.00	0.18		
	Total	72.90	398.00			
Age	Between Groups	23.29	3.00	7.76	9.97	0.020**
	Within Groups	307.61	395.00	0.78		
	Total	330.89	398.00			
marital status	Between Groups	14.95	3.00	4.98	19.54	0.007
	Within Groups	100.75	395.00	0.26		
	Total	115.70	398.00			
Qualification	Between Groups	6.15	3.00	2.05	4.72	0.030**
	Within Groups	171.57	395.00	0.43		
	Total	177.71	398.00			
Occupation	Between Groups	12.20	3.00	4.07	2.13	0.095
	Within Groups	753.53	395.00	1.91		

	Total	765.73	398.00			
Gross Income	Between Groups	22.10	3.00	7.37	2.85	0.030**
	Within Groups	1020.66	395.00	2.58		
	Total	1042.77	398.00			
Dependency ratio	Between Groups	3.50	3.00	1.17	1.05	0.300
	Within Groups	438.97	395.00	1.11		
	Total	442.47	398.00			

Source: Compiled by researcher

** Significance at 5 %, ***significance at 1%

This is the table that shows the output of the ANOVA analysis and whether we have a statistically significant difference between our group means. We can see that the significance level is 0.000 ($p = .000$), which is below 0.05 (95% confidence interval). And, therefore it indicates that overall model is significant therefore the model construct is validated.

Multiple regression of non committed expenditure

Table 5.14 Model Summary for Non committed expenses

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.758 ^a	.745	.745	.3033

Source: Compiled by researcher

a. Predictors: (Constant), Entrainment, personal care and effects, repair, furniture, furnishing , appliances and services

The table shows that the multiple R values (0.758) depict a highly positive correlation between demographic factors and total expenses. The reliability of the estimates depends upon the closeness of the relationship. The closer R is to +1 or -1, the closer the relationship (Gupta, S.P., 2001).

The square of the correlation coefficient R^2 (.745) called coefficient of determination is a convenient way of interpreting the value of R. R^2 gives the percentage variation in the dependent variable as explained by the independent variable (Gupta, S.P., 2001). Further, the greater the value of R^2 , the better is the regression line

fit and the more useful the regression equation as a predictive device for the estimation of the dependent variable from the values of the independent variables (Gupta, S.P., 2001)

Researcher can state that the fittest model is where R^2 is 74% of the variation on monthly

ANOVA for Non Committed Expenses						
		Sum of Squares	df	Mean Square	F	Sig.
Gender	Between Groups	1.4	5.0	0.5	2.6	0.0516**
	Within Groups	71.5	395.0	0.2		
	Total	72.9	400.0			
Age	Between Groups	23.3	5.0	7.8	10.0	0.0020***
	Within Groups	307.6	395.0	0.8		
	Total	330.9	400.0			
marital status	Between Groups	15.0	5.0	5.0	19.5	0.0030***
	Within Groups	100.7	395.0	0.3		
	Total	115.7	400.0			
Qualification	Between Groups	6.1	5.0	2.0	4.7	0.0030***
	Within Groups	171.6	395.0	0.4		
	Total	177.7	400.0			
Occupation	Between Groups	12.2	5.0	4.1	2.1	0.0957
	Within Groups	753.5	395.0	1.9		
	Total	765.7	400.0			
Gross Income	Between Groups	22.1	5.0	7.4	2.9	0.0372**
	Within Groups	1020.7	395.0	2.6		
	Total	1042.8	400.0			
Dependency ratio	Between Groups	3.5	5.0	1.2	1.1	0.3698
	Within Groups	439.0	395.0	1.1		
	Total	442.5	400.0			

Source: Compiled by researcher

** Significance at 5 %, ***significance at 1%

This is the table that shows the output of the ANOVA analysis and whether we have a statistically significant difference between our group means. We can see that the significance level is 0.000 ($p = .000$), which is below 0.05 (95% confidence interval). Except occupation and dependency ratio they are significant at 1% and, therefore it indicates that overall model is significant therefore the model construct is validated.

It has been proved by literature review that there are so many factors which affect the consumption pattern of households. These factors are demographic social or financial. To locate the relationship between individual description such as age, gender, social features such as education, type of family, and family characteristics such as occupation and income with consumption behaviour of the households, chi-square test was applied. The analysis has been performed by using correlation, regression and ANOVA. A fit model has also been derived by analyzing the data through step wise regression.

Frequency table of different investment avenues

	Investment in Debts	Investment in Equities	Investment in Real estate	Investment in Gold
Applicable	400	321	77	261
Not applicable	0	79	323	139
Total respondents	400	400	400	400

Source: Compiled by researcher

Conclusion

To conclude, the consumption expenditure showed significant differentials not only between the groups but also within the group. Age gender marital status and income, were significant determinants of consumption expenditure of the households. Research finds that for committed expenses age and marital status are significantly impacting the pattern and for non committed expenses marital status and income are significantly impacting.

References

- Raj Krishna and Ray Choudhari, G.S (1982) "trends in rural saving and capital formation in india, 1950-51 to 1973-74", Economic Development and cultural change, Vol ,30.
- De Haan, J. and Siermann, C. L. J., (1994): "Saving Investment and Capital Mobility: A Comment on Leachman", *Open Economies Review*, 5, pp. 5-17.r 36
- Sinha, D and Sinha T (1998): "Cart before Horse? The Saving-Growth Nexus in Mexico", *Economics Letter*, 61: pp. 43-47.
- De Vita, G. & A. Abott, (2002): "Are Saving and Investment Cointegrated? An ARDL Bounds
- Sinha, D. (2002): "Saving-Investment Relationships for Japan and other Asian countries", *Japan and the World Economy*, 14, pp. 1-23.
- Sinha, T. and Sinha, D. (2004): "The Mother of All Puzzles Would Not Go Away", *Economic Letters*, 82, pp. 259-267.
- Jansen, W.J., Schulze, G.G., 1996. Theory-based measurement of the saving-investment correlation with an application to Norway. *Economic Inquiry* 34, 116-132.

- Obstfeld, M., Rogoff, K., 2000. Perspectives on OECD economic integration. Global economic integration: Opportunities and challenges, Federal Reserve Bank of Kansas
- Bernheim, D., (1995). “Do Households Appreciate Their Financial Vulnerabilities? An Analysis of Actions, Perceptions, and Public Policy.” Tax Policy and Economic Growth, Washington, DC: American Council for Capital Formation, pp. 1-30.
- Bernheim, D., (1998) “Financial Illiteracy, Education and Retirement Saving.” In *Living with Defined Contribution Pensions*, ed. Olivia S. Mitchell and Sylvester Schieber, pp. 38-68. Philadelphia: University of Pennsylvania Press.
- 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
- Gupta, S.P. (1996) —Statistical Methods, Sultan Chand & sons, New Delhi,

