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# Changing Scenario Of Income And Investment Pattern In The Kumaun Division: A Study Of Middle-Class Investors

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## Abstract:

The investment becoming a very crucial part of any individual in the present time as this saving and investment could provide a cushion for future emergencies. Hence, to reach the overall objectives of the life cycle, planning professionals need to be familiar with all the investment instruments available and make required changes in the pattern of the investment to design a profitable portfolio. The purpose of this study is to identify the changes occurred in the income and investment pattern of the respondents belongs to the middle class in the Kumaun division using well-structured questionnaire for the survey of 60 investors who have faced the changes in the past decade since 2011 to 2020. Researcher analyse the responses given to a close ended and one open ended response from different districts of Kumaun. The respondents mentioned the changes in the income as well as investment pattern in the last decade along with the specified reasons for these changes. Researcher employed linear regression, anova, coefficient, chi-square test and factor analysis model to trace the changes of investment pattern. The findings of this study are indicating that the middle-class investors income and investment pattern have upward trend line in the last decade which influenced by various financial and non-financial components. The definition of middle class is modified on the basis of previous definition given by NCAER (2004), MGI report (2007), Finance Minister's statement regarding middle class (2020) and changed financial indicators like gdp rate & inflation rate. Hence, this definition is applicable only for this study not elsewhere.

**Keywords:** income, saving, investment, changes and middle-class investors.

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## Introduction and Statement of The Problem

Economic growth theory takes saving into account as a strategic variable. The saving function, or its counterpart consumption function, was at the very heart of the macroeconomic system according to classical economists like Adam Smith, Ricardo, and Keynes (1936). The growth models, saving plays a vital role in determining the rate of

growth and a key parameter in modelling it. Also, A person's wealth can provide him with a cushion of security against future emergencies and thus provide him with a safeguard. Savings can then be invested into productive financial assets in order to chieve more value after they have been accumulated. Recent debates in developed countries, including the United States, Europe, and other developed nations, have focused on issues related to equality, mobility, and how to benefit from further growth while stemming stagnation. The discussion is very different in other parts of the world. Markets for most goods and services are dominated by the middle classes. The group is responsible for a significant portion of a country's tax revenue, and they additionally contribute to a country's relative political stability. Thurow, the late eminent MIT economist, explained the importance of middle class: "A healthy middle class is necessary to have a healthy political democracy. A society made up of rich and poor has no mediating group either politically or economically."

The Indian middle class is expected to grow proportionately as large as the US middle class today. The rise in the number of people in work in India has led to a massive growth in the middle class as a result of demographic changes. New dynamics would be created by a large portion of the population emerging from absolute poverty and destined to enter the middle class. We combined household survey data with macro data while taking into account the multidimensional nature of the middle class to quantify the growing size of the middle class. On the other side, the growth of the economy has been driven by private consumption as well as savings by the middle class. The gross domestic product (GDP) of India is almost 60% private consumption, and that growth has contributed 70% to Indian economic progress since 2000. Whereas domestic saving in the United States is declining-and it borrows surplus savings abroad to invest and grow-India's domestic savings and investments are increasing and financing investment. Economic progress and social progress are facilitated by the middle class in four key ways. Firstly, they are entrepreneurs, innovators, philanthropists, and public servants. The majority of Americans believe that America's greatness has been shaped by small businesses and family farms. The middle class, specifically the middle-class households, contributes significantly to savings and human capital, as they save at higher rates and are more willing to invest in human capital. Thirdly, they strengthen the connections between the democratic process, education, and free press. Lastly, the fourth unique characteristic of the middle class which make it significant is consumption. As consumer durables demand rises, manufacturing in India is also accelerating. Automobiles, motorcycles, televisions, air conditioners, mobile phones, and refrigerators are some of the items increasing in demand. Furthermore, middle-class consumers are also increasing their demands for housing, shopping centres, and other infrastructure, as well as taking annual vacations, which can boost domestic tourism. Middle class households save for retirement, housing and children's education, contributing to the formation of fixed capital, particularly when there are two earners. The majority of examples of rapid sustained economic growth appear to be associated with the expansion and growth of the middle class Ejaz Ghani (2021).

Hence, it becomes very important to characterise the middle-class income, saving and investment pattern given more stress on the trends in the past decade to recommend stakeholders of the financial market to frame the product and marketing strategy which can cope up with their required objectives or needs. In the Kumaun division it may research have witnessed that people are tend to invest with fixed return instruments which can provide safety to their principal money (Dalakoti Chitranka 2010) but with the change in time it has seen that people now are willing to expose themselves towards risk and invest in variable return instruments so that they can earn higher return than fixed income instruments. So, this study is designed to attempt to measure the changes and showcase the trendline in the Kumaun division.

## **INVESTMENT AVENUES**

In the current market situation, investors can choose from a variety of investment avenues to suit their needs and nature. Investments can be intelligently chosen when investors are aware of the different avenues. It depends on how much return the investor expects, as well as how much risk they are willing to take. Investment Avenues can be divided into two broad groups i.e., fixed return avenues (FRA) and variable return avenues (VRA). The fixed return avenues can offer safety of the principal money invested as their prime objective with assured satisfactory returns at maturity or end of term such avenues include fixed deposits in banks, post offices and in companies, national saving certificates, indira vikas patra, kisan vikas patra, other postal savings schemes, bonds and debentures, government securities etc. On the other side, the variable return avenues are those instruments which offer variability according to the market situations but it could be able to provide investors higher returns than satisfactory considering the risk aspects such instruments include company shares, mutual funds and sips, insurance policies, chit funds and real estate.

## **LITERATURE REVIEW**

A wide range of investment factors affecting investor patterns have been explored in the context of Indian literature, drawing on relevant works of the past. Geetha, N., and Ramesh, M. (2011) investigate whether investment alternatives are more or less attractive to investors in Kurumballur. There are various investment alternatives available in the financial market. Therefore, the person who is planning to invest must know most of them so that he will be able to attain his objectives. Among 200 participants in the study, Insurance, National Saving Certificates (NSC), Bank Deposits and Public Provident Fund (PPF) are the most preferred instruments by all age groups except for senior citizens who prefer low risk instruments like Insurance, Post Office Savings, Public Provident Fund. Riaz Lubna (2012) affirms that investors' behavior is affected by a number of factors including age, sex, background, and educational level. With investors being faced with a variety of challenges during the selection of investments, they should utilize their emotional and cognitive biases to make the right decision. Psychological factors are known to have a direct impact on investment decisions, which is why

investors cannot afford to ignore them. The relevant studies revealed multiple factual points that helped to develop a model for analyzing the effect of risk inclination in unbalanced information and challenges based on an individual investor's behavior in the decision-making process. Moreover, the weightage system associated to every independent variable contributed to the decision to invest. In their study published in 2013, Harikant D and Pragathi B (2013) revealed that investors place their investments in different types of investments to satisfy their financial, social, and psychological needs. Additionally, they are looking for other type of benefits while choosing a financial avenue, such as safety and security, getting periodic returns or dividends, having a secure future, liquidity, easy purchasing, tax benefits, and being able to meet future needs. In this study, it was found that males are more likely than females to invest in risky avenues such as shares (8.14 percent) than those who invest in bonds (1.58 percent). Neither mutual funds nor shares remain more attractive to female investors. The riskier avenues of equity and mutual funds are more appealing to educated, male investors who are in the age group of 31-40 with a higher income (employees or businessmen). In addition to making a good portfolio, they consider the future and make decisions based on the intention of making a high capital gain from a particular sector. Salaried investors prefer investment options resulting in long-term benefits, highly secured and profitable avenues regardless of their age, income, occupation, and marital status, according to Priya (2015).

## **OBJECTIVES**

1. To identify the income pattern in the last decade of Kumaun division,
2. To identify the saving and investment pattern in the last decade of Kumaun division,
3. To identify the substantive changes in the investment avenues in the last decade.
4. To identify the reason of changing selection of investment avenues, which affect investment decision of middle-class investor.

## **HYPOTHESIS**

**H<sub>01</sub>:** There is no changes occurred in the income pattern of the respondents belongs to the middle-class in the last decade of Kumaun division,

**H<sub>02</sub>:** There is no changes occurred in the saving and investment pattern of the respondents belongs to the middle-class in the last decade of Kumaun division,

**H<sub>03</sub>:** There is no substantive changes in the investment avenues in the last decade.

**H<sub>04</sub>:** There is no single reason of changing selection of investment avenues, which affect investment decision of middle-class investor.

## **METHODOLOGY**

A descriptive research design was used to conduct this empirical study. This study was conducted using purposive and snowball sampling methods as the specified middle class

investors data is belonging to the unknown universe. Researcher employed snowball sampling methods for the data collection using references. The sample size is determined to be as 60 belonging from six districts of Kumaun i.e., Almora, Bageshwar, Champawat, Nainital, Pithoragarh and Udham Singh Nagar, A combination of primary and secondary data was used for the study. A structured questionnaire and direct interview were used to collect primary data from investors as part of a schedule method. This structured questionnaire is divided into two parts. The first part looks at the demographics of the respondents. In the second part of the questionnaire, investors are asked to provide information regarding investment patterns over the last decade. Indian households can be categorized into five income groups based on discretionary income based on NCAER and McKinsey Global Institute (MGI) studies. According to surveys, the following six groups of individuals comprise Indians: Deprived (U.S. \$469 to Rs. 90000), Aspirers (U.S. \$4376 to Rs. 200000), Seekers (U.S. \$4376 to Rs. 500000), Strivers (U.S. \$ 10941 to USD 21882) and Global Indians (U.S. 21882 to Rs. 1000000). The Union Finance Minister Nirmala Sitharaman is expected to rename the people in the range of the middle-income group as those earning between Rs 6 and 18 lakh each year. Therefore, in this study, only respondents who have a present annual income of over Rs. 5 lakh (as stated by Hurun India Wealth Report) will be chosen as respondents. So, there will be a substantial number of respondents classified into Lower Middle Class (Rs. 6 Lakh to 10 Lakh), Middle-Middle Class (Rs. 10 Lakh to 15 Lakh) and Upper Middle Class (Rs. 15 Lakh to 18 Lakh). and this classification will be used to classify respondents only for the purposes of this study. Later on data was coded in the MS Excel 2019 and tested through IBM SPSS 28.01.00.

## DATA ANALYSIS

### Demographic Profiles of the Middle-Class Investors

This study is divided into two parts, first to identified those demographic variables which can generate the validity of this study by occupying responses from varied demographic aspects. Second, their investment profile by which researcher would be able to attain the designed objectives of the study.

Variables	Response Set	Valid	Valid %	Variables	Response Set	Valid	Valid %
Districts of Kumaun Divisions	Almora	7	11.7	Dependent Members	0 to 2	28	46.7
	Bageshwar	8	13.3		3 to 4	19	31.7
	Champawat	9	15		5 to 6	9	15
	Nainital	15	25		More than 6	4	6.7
	Pithoragarh	9	15	Low	19	31.7	

	Udham Singh Nagar	12	20	Investment Preference	Moderate	29	48.3
Genders	Male	40	66.7		High	12	20
	Female	20	33.3	Risk Preference	Low	32	53.3
Marital Status	Single	14	23.3		Moderate	21	35
	Married	46	76.7	High	7	11.7	
Age	Below 30	12	20	Hired Financial Advisor	No	45	75
	31-40	23	38.3		Yes	15	25
	41-50	13	21.7	Past Experience of Saving & Investment	Fresher (no past experience)	10	16.7
	51-60	10	16.7		Neutral (comfortable with traditional avenues)	28	46.7
	Over 60	2	3.3		conversant (comfortable with variable return avenues)	13	21.7
Education	10	7	11.7	Expert (regular trade in share market)	9	15	
	10+2	6	10	Time Horizon of Investment	Below 5 years	22	36.7
	UG (10+2+3)	19	31.7		6-10 years	16	26.7
	PG (10+2+3+2)	16	26.7		11-15 years	11	18.3
	Doctorate	7	11.7		16-20 years	5	8.3
	Professional Edu.	5	8.3		Over 20 years	6	10
Profession	Farmer	5	8.3	Expected Return	Less than 8%	21	35
	Salaried in Private Firm	4	6.7		Between 9 to 16%	26	43.3

	Salaried in Corporate Sector	6	10		Between 17 to 24%	7	11.7
	Salaried in Government Sector	26	43.3		Greater than 24%	6	10
	Business	12	20	Financial Literacy	Low	19	31.7
	Professional	7	11.7		Moderate	26	43.3
Income Group	Rs. 6 Lakh to Rs 10 Lakh	23	38.3		High	15	25
	Rs. 10 Lakh to Rs 15 Lakh	25	41.7	Total	60	100	
	Rs. 15 Lakh to Rs 18 Lakh	12	20				
<b>Source:</b> Survey Data and Compiled through SPSS.							

Table 1 Demographic Profiles of the Middle-Class Investors

Table 1 clearly indicating that this study is covering all the districts of Kumaun division and occupied responses 11.7%, 13.3%, 15%, 25%, 15% and 20% from Almora, Bageshwar, Champawat, Nainital, Pithoragarh, Udham Singh Nagar respectively. The gender wise respondents who participated in this study are male and female as 66.7% and 33.3% respectively. In which 23.3% are single and 76.7% are married and they are belonging from Below 30 (20%), 31-40 (38.3%), 41-50 (21.7%), 51-60 (16.7%) and Over 60 (3.3%). They are having qualifications 10<sup>th</sup>, 10+2, UG (10+2+3), PG (10+2+3+2), Doctorate, Professional Edu. responses as 11.7%, 10%, 31.7%, 26.7%, 11.7% and 8.3% respectively. In which 8.3% are farmers, 6.7% are salaried in private firm, 10% are salaried in corporate sector, 43.3% are salaried in government sector, 20% are own their business and 11.7% are working as professional. The 38.3 % respondents are belonging from Rs. 6 Lakh to Rs 10 Lakh group, 41.7% respondents are belonging from Rs. 10 Lakh to Rs 15 Lakh and 20% respondents are belonging from Rs. 15 Lakh to Rs 18 Lakh. The 46.7% people are having 0 to 2 dependents members, 31.7 % people are having 3 to 4 dependents members, 15% people are having 5 to 6 dependents members, 6.7% More than 6 dependents members. Among them, 31.7% investors believes that they have Low preference of investment 48.3% investors believes that they have Moderate preference of investment 20% investors believes that they have High preference of investment. Also, 53.3% investors believes that they have Low risk preference 35% investors believes that they have Moderate risk preference 11.7% investors believes that they have High risk preference. Surprisingly, majority (75%) of the investors does not have any financial advisor. In this survey it is found out that 16.7% investors were Fresher who have no past experience, 46.7% investors were Neutral who are comfortable with

traditional avenues only, 21.7% investors were conversant who are comfortable with variable return avenues and 15% investors were Expert who are regularly trade in share market. Among them 36.7% are investing for Below 5 years, 26.7% are investing for 6-10 years, 18.3% are investing for 11-15 years, 8.3% are investing for 16-20 years and 10% are investing for Over 20 years. Also, 35% investors expect Less than 8% returns on their portfolio, 43.3% investors expect Between 9 to 16% returns on their portfolio, 11.7% investors expect Between 17 to 24% returns on their portfolio, 10% investors expect Greater than 24% returns on their portfolio. This study also revealed that 31.7% people possess Low financial literacy, 43.3% people possess Moderate financial literacy and 25% people possess High financial literacy.

To test the validity and authenticity of this study, it is necessary to go through the reliability test to go for further analysis.

**Table 2 Reliability Measures of Investment Profile**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.892	0.897	112
<b>Source:</b> Survey Data and Complied through SPSS.		

**Table 3 Reliability Measures of Each Variable**

Variables	C.α	Variables	C.α	Variables	C.α
Area	0.895	Investment in 2011	0.889	Objectives of savings	0.889
Districts of Kumaun Division	0.893	Investment in 2012	0.888	Attitude for market variations	0.888
Gender	0.893	Investment in 2013	0.887	Capital Growth	0.893
Marital Status	0.892	Investment in 2014	0.886	Fund Objective	0.891
Age	0.891	Investment in 2015	0.887	ROI	0.892
Education	0.895	Investment in 2016	0.887	Tax Advantages	0.893
Profession	0.892	Investment in 2017	0.886	Liquidity	0.893
Income Group	0.889	Investment in 2018	0.886	Security	0.894
Dependent Members	0.893	Investment in 2019	0.886	Ease of reinvestment	0.892
Investment Preference	0.889	Investment in 2020	0.886	Returns in short term	0.892
Risk Preference	0.891	Risk Appetite in 2011	0.890	Goodwill	0.893
Hired Financial Advisor	0.891	Risk Appetite in 2012	0.890	Business Volume	0.892
Past Experience	0.888	Risk Appetite in 2013	0.890	Sector	0.893



Time Horizon of Investment	0.892	Risk Appetite in 2014	0.890	Services	0.891
Expected Return	0.888	Risk Appetite in 2015	0.890	Performance	0.893
Financial literacy	0.889	Risk Appetite in 2016	0.890	Infrastructure	0.894
Bank Term Deposits	0.893	Risk Appetite in 2017	0.890	Suggestions	0.894
Post Office Term Deposits	0.893	Risk Appetite in 2018	0.890	Background Experience	0.894
Government Bonds	0.891	Risk Appetite in 2019	0.890	Philosophy & Methods	0.893
Corporate Bonds	0.891	Risk Appetite in 2020	0.890	Industry performance	0.890
Public Provident Funds	0.893	Perception of Risk and Return	0.890	Investment opportunities	0.891
Life Insurance Policies	0.891	Proportional Changes	0.892	Services by Co.s	0.891
Real estate	0.891	Period of Investments in 2011	0.892	Perception V1	0.895
Bullions	0.892	Period of Investments in 2012	0.891	Perception V2	0.894
Mutual Funds	0.890	Period of Investments in 2013	0.892	Perception V3	0.896
Equity Shares	0.890	Period of Investments in 2014	0.892	Perception V4	0.896
Private-Landing	0.892	Period of Investments in 2015	0.892	Perception V5	0.890
Chit Funds	0.892	Period of Investments in 2016	0.892	FC 1	0.891
Income in 2011	0.890	Period of Investments in 2017	0.893	FC 2	0.892
Income in 2012	0.889	Period of Investments in 2018	0.894	FC 3	0.893
Income in 2013	0.889	Period of Investments in 2019	0.894	FC 4	0.892
Income in 2014	0.889	Period of Investments in 2020	0.894	NFC 1	0.892
Income in 2015	0.889	Risk Consideration	0.892	NFC 2	0.892
Income in 2016	0.889	Planned Saving & Investment	0.891	NFC 3	0.892

Income in 2017	0.890	Expected Growth Rate	0.890	NFC 4	0.892
Income in 2018	0.890	Monitoring	0.891	FC 5	0.892
Income in 2019	0.890	Financial Needs	0.891	FC 6	0.893
Income in 2020	0.889	<b>Overall Cronbach's Alpha</b>			<b>0.892</b>
<b>Source:</b> Survey Data and Compiled through SPSS.					

Alpha values of 0.6 or less generally indicate poor quality. But the results of the survey visible in table 2 indicates good consistency among items and the tools developed for study are reliable as each variable shows more than 0.8 score and 0.892 as overall score of Cronbach's alphas. Hence, researchers must proceed further as he obtained the good value of reliability of the overall test and individual test.

### Income Pattern Analysis

The total responses for last decade on income pattern is shown in the table 4, where it is clearly visible that most of the respondents (i.e., 36%) are belonging from Rs. 6 Lakh to Rs. 10 Lakh group. To analysis the whether the pattern of income have been changed in the last decade or not in the Kumaun division. Following hypothesis is made:

**H<sub>01</sub>:** There is no changes occurred in the income pattern of the respondents belongs to the middle-class in the last decade of Kumaun division.

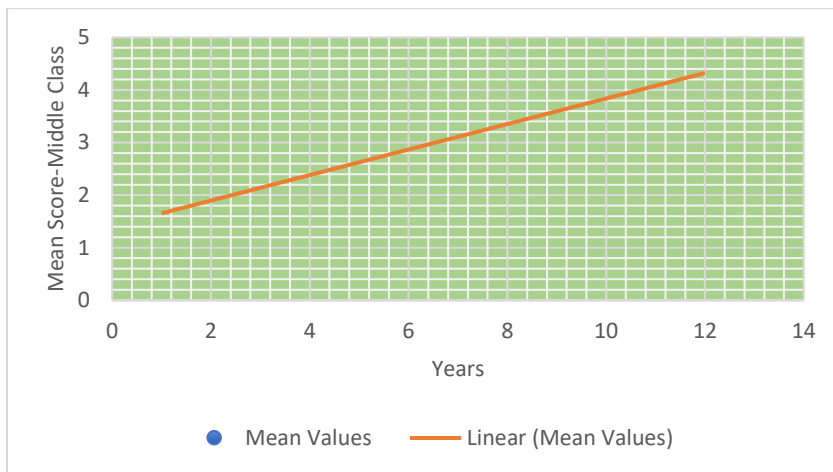
**Table 4 Income Pattern**

Income Groups	Responses	%	% of Cases Made
Below Rs. 3 Lakh	84	14.00%	140.00%
Rs. 3 Lakh to Rs. 6 Lakh	156	26.00%	260.00%
Rs. 6 Lakh to Rs. 10 Lakh	216	36.00%	360.00%
Rs. 1 Lakh1 to Rs. 15 Lakh	117	19.50%	195.00%
Rs. 15 Lakh to Rs. 18 Lakh	27	4.50%	45.00%
<b>Gross Total</b>	<b>600</b>	<b>100.00%</b>	<b>1000.00%</b>

The significance acceptance level was 5 percent. The results are interpreted in the following manner

The responses are tested in SPSS 28 with regression model. The income patterns a trend line and forecasted line for the last decade which can be seen in Figure 1 with a scatter plot by linear equation  $Y = 1.411 + 0.243X + \epsilon$ . Where, Y = Income pattern changes, X = Year. The equation can be rewritten as: Income pattern changes =  $1.411 + 0.243 \cdot \text{Year} + \epsilon$ .

**Figure 1- Line Fit Plot of Income Pattern**



The above trend line equation indicating a slope line of 0.243 and constant score of 1.411. Which implies the change in the value of Y generated by a one unit change in the X score. It means for each change in number of years there will be 24.30 percent rise in the income pattern. The  $R^2$  shows a significant higher Score i.e., 0.980. Which means the independent variable i.e., year as a predictor explains 98.00 percent variability of the dependent variable income pattern in the last decade.

Further more these trend line and income pattern have been tested in regression, anova and coefficient of residual value which can be seen in the table 5,6 and 7.

**Table 5 Model Summary**

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Estimate-Std. Error
0.990	0.980	0.978	0.110371
Predictors: (Constant), Years			
<b>Source:</b> Survey Data and Compiled through SPSS.			

**Table 6 ANOVA**

	$\sum$ (Squares)	D.f.	(Mean ) <sup>2</sup>	F Score	Sig.
Reg.	4.858	1	4.858	398.811	0.000
€	0.097	8	0.012		
Sum	4.956	9			
a Dependent Variable: Income Pattern Mean Score b Predictors: (Constant), Years €-Residual Error Source: Primary Data and Computed by SPSS 28.01.0.					

**Table 7 Coefficient**

	Unstandardized Coeff.		Standardized Coeff.	T Score	Sig. B
	B	S.E.	$\beta$ Score		
Constant	1.411	0.075		18.719	0.000
Yrs	0.243	0.012	0.990	19.970	0.000
Dependent Variable: Income Pattern Mean Score <b>Source:</b> Survey Data and Compiled through SPSS.					

Table 6 indicated that the linear model is fit with  $f = 398.811$  and  $p = 0.000$  ( $p < 0.05$ ) which led researcher to reject the null hypothesis viz. There are no changes occurred in the income pattern of the respondents belongs to the middle-class in the last decade of Kumaun division. It implies that the income pattern of the respondents belongs to the middle-class from Kumaun division have been changed in the last decade and which expected to grow in coming years. Also, it shows a positive relationship with time which it continuously rises with time taking all the underlying components into considerations.

### **Saving & Investment Pattern Analysis**

The total responses for last decade on saving & investment pattern is shown in the table 4, where it is clearly visible that most of the respondents (i.e., 37.30%) are able to save & invest Less than 10 per cent of their income. To analysis the whether the pattern of saving & investment have been changed in the last decade or not in the Kumaun division. Following hypothesis is made:

**H<sub>02</sub>:** There are no changes occurred in the saving & investment pattern of the respondents belongs to the middle-class in the last decade of Kumaun division.

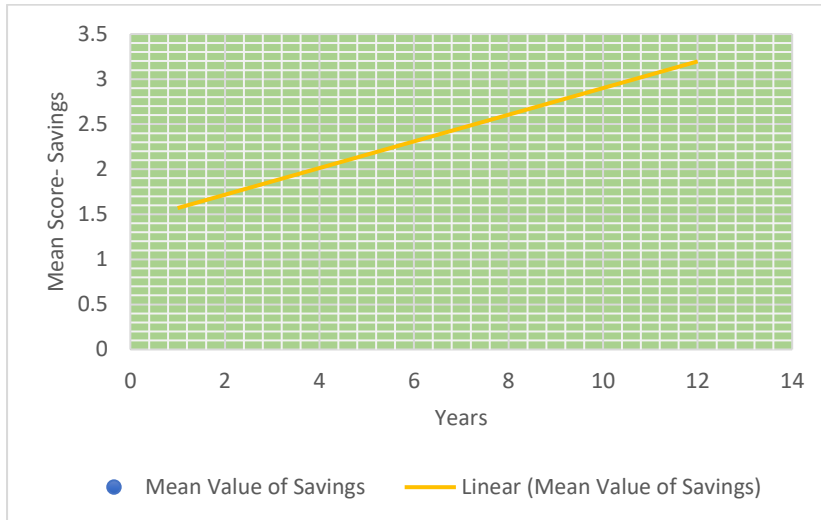
**Table 8 Saving & Investment Pattern Response Set**

	Responses	%	% of Cases Made
Less than 10 per cent	224	37.30%	373.30%
10-20 per cent	155	25.80%	258.30%
20-30 per cent	116	19.30%	193.30%
30-40 per cent	66	11.00%	110.00%
More than 40 per cent	39	6.50%	65.00%
<b>Total</b>	<b>600</b>	<b>100.00%</b>	<b>1000.00%</b>
<b>Source:</b> Survey Data and Compiled through SPSS.			

The significance acceptance level was 5 percent. The results are interpreted in the following manner

The responses are tested in SPSS 28 with regression model. The saving & investment patterns a trend line and forecasted line for the last decade which can be seen in Figure 2 with a scatter plot by linear equation  $Y = 1.421 + 0.148X + \epsilon$ . Where, Y = saving & investment pattern changes, X = Year. The equation can be rewritten as: saving & investment pattern changes =  $1.421 + 0.148 \times \text{Year} + \epsilon$

**Figure 2- Line Fit Plot of Saving & Investment**



The above trend line equation indicating a slope line of 0.148 and constant score of 1.421. Which implies the change in the value of Y generated by a one unit change in the X score. It means for each change in number of years there will be 14.80 percent rise in the saving & investment pattern. The  $R^2$  shows a significant higher Score i.e., 0.975. Which means the independent variable i.e., year as a predictor explains 97.50 percent variability of the dependent variable saving & investment pattern in the last decade.

Furthermore, these trend line and saving & investment pattern have been tested in regression, anova and coefficient of residual value which can be seen in the table 9,10 and 11.

**Table 9 Model Summary**

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Estimate-Std. Error
0.987	0.975	0.972	0.076526
a Predictors: (Constant), Years			
<b>Source:</b> Survey Data and Compiled through SPSS.			

**Table 10 ANOVA**

	$\sum$ (Squares)	D.f.	(Mean) <sup>2</sup>	F Score	Sig.
Reg.	1.806	1	1.806	308.322	0.000

€	0.047	8	0.006		
Sum	1.852	9			
a Dependent Variable: Savings & Investments Mean Score b Predictors: (Constant), Years €-Residual Error <b>Source:</b> Survey Data and Complied through SPSS.					

**Table 11 Coefficient**

	Unstandardized Coeff.		Standardized Coeff.	T Score	Sig. B
	B	S.E.	β Score		
Constant	1.421	0.052		27.188	0.000
Yrs	0.148	0.008	0.987	17.559	0.000
a Dependent Variable: Savings & Investments Mean Score <b>Source:</b> Survey Data and Complied through SPSS.					

Table 11 indicated that the linear model is fit with  $f = 308.322$  and  $sign.=0.000$  ( $p < 0.05$ ) which led researcher to reject the null hypothesis viz. There are no changes occurred in the saving & investment pattern of the respondents belongs to the middle class in the last decade of Kumaun division. It implies that the saving & investment pattern of the respondents belongs to the middle-class from Kumaun division have been changed in the last decade and which expected to grow in coming years. Also, it shows a positive relationship with time which it continuously rises with time taking all the underlying components into considerations.

### Investment Avenues Selection Pattern

Initially most of the investors are showing their interest towards fixed return avenues which seems varied with time. The investors preference towards various investment avenues have been listed in the table 12

**Table 12 Investment Patterns in the last decade**

Instruments		11	12	13	14	15	16	17	18	19	20	Total
FRA	BTD	48	47	46	44	41	41	33	32	31	31	394
	POTD	19	19	20	19	22	22	20	21	22	23	207
	GS	3	2	3	3	4	4	10	8	11	11	59
	CS	3	3	3	5	8	8	9	6	6	7	58
	PPF	5	5	8	9	8	8	8	8	9	8	76
VRA	LIP	21	23	22	26	26	26	30	31	32	31	268
	L&RE	9	9	9	9	13	13	17	17	19	19	134
	G&S	6	7	6	6	8	8	13	14	13	13	94

	MF&SIP	4	4	4	6	9	9	17	18	19	19	109
	ES	3	3	3	4	5	5	11	12	15	16	77
	PL	1	1	1	1	1	1	2	3	3	3	17
	CF	1	1	1	2	2	2	2	2	2	3	18
	<b>Total</b>	<b>123</b>	<b>124</b>	<b>126</b>	<b>134</b>	<b>147</b>	<b>147</b>	<b>172</b>	<b>172</b>	<b>182</b>	<b>184</b>	<b>1511</b>
<b>Source:</b> Survey Data and Compiled through SPSS.												

Table 12 shows that most of the respondents were more interested in fixed return avenues due to their own different reasons and motives. But later on it shows that now they are moving towards variable return avenues. To test whether these facts also resulting in the changing saving & investment patten or not, the researcher has framed following hypothesis

**H03:** There is no substantive changes in the investment avenues in the last decade.

To analyse above hypothesis two more sub-hypothesis have been framed for thoroughly analysed with different tools

Firstly, **H03.1:** There is no substantive changes in the fixed return investment avenues in the last decade.

The significance acceptance level was 5 percent. The results are interpreted in the following manner

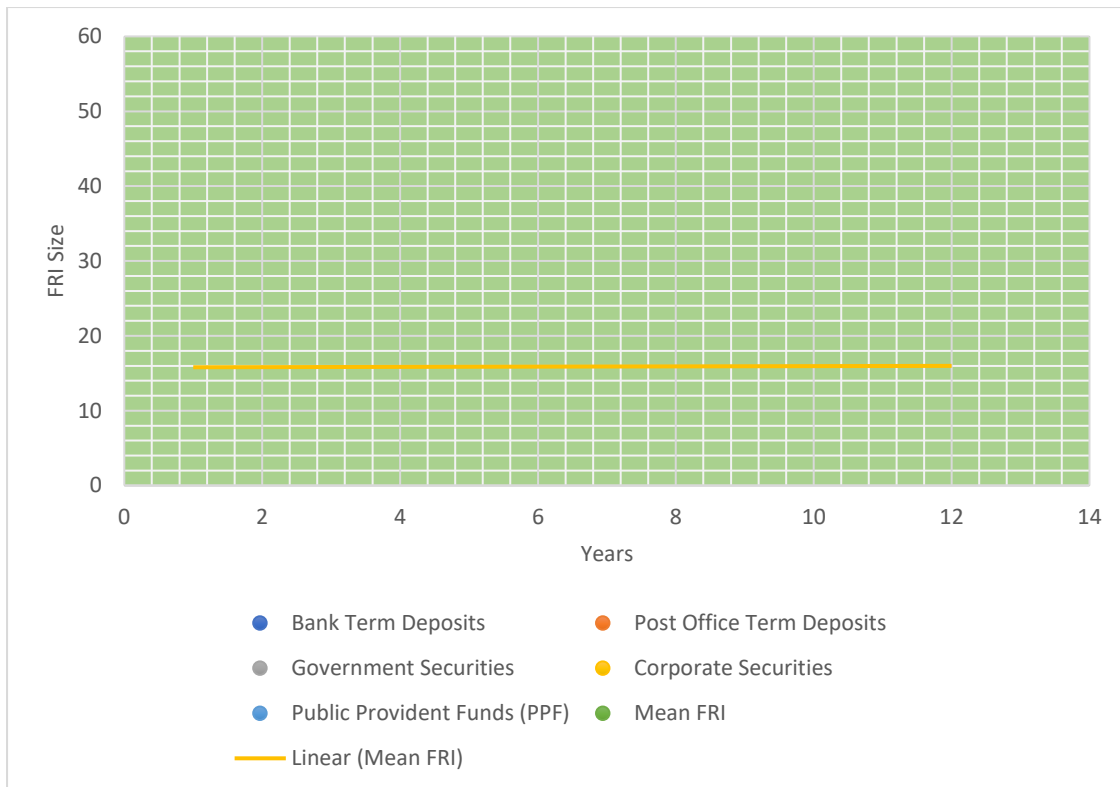
The responses are tested in SPSS 28with regression model. The fixed return investment avenues selection patterns a trend line and forecasted line for the last decade which can be seen in Figure 3 with a scatter plot by linear equation Here,  $Y$  (Initial of the Instruments) = Change in fixed return investment avenues selection,  $X$  = Year. Hence the equation can be written as:

Changes in different fixed return investment avenues (FRA) selection

$$Y_{(BTD)} = 51.667 - 2.230X + \epsilon; Y_{(POTD)} = 18.533 - 0.394X + \epsilon; Y_{(GS)} = -0.133 + 1.097X + \epsilon;$$

$$Y_{(CS)} = 3.000 + 0.509X + \epsilon; Y_{(PPF)} = 5.867 + 0.315X + \epsilon$$

**Figure 3- Line Fit Plot of Fixed Return Investment Avenues Selection**



The above trend line equation indicating a slope line of -2.230, 0.394, 1.097, 0.509 and 0.315 and constant score of 51.667, 18.533, -0.133, 3.000 and for 5.867 BTM, POTD, GS, CS and PPF respectively. Which implies the change in the value of Y generated by a one unit change in the X score. The R<sup>2</sup> shows a significant higher Score i.e., 0.936, 0.637, 0.821, 0.469 and 0.445 respectively. Which means the independent variable i.e., year as a predictor explains given fractional variability of the dependent variable fixed return investment avenues selection pattern in the last decade.

Furthermore, these trend line and fixed return investment avenues selection pattern have been tested in regression, anova and coefficient of residual value which can be seen in the table 13.

**Table 13 Summary of Model for Changed Investors for FRA**

	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Estimate-Std. Error		
BTD	0.968	0.936	0.928	1.87164		
POTD	0.798	0.637	0.592	0.95505		
GS	0.906	0.821	0.799	1.64409		
CS	0.685	0.469	0.403	1.73991		
PPF	0.667	0.445	0.376	1.12949		
ANOVA-FRA Investors						
		∑ (Squares)	D.f.	(Mean) <sup>2</sup>	F Score	Sig.



BTD	Reg.	410.376	1	410.376	117.149	0.000
	€	28.024	8	3.503		
	Sum	438.400	9			
POTD	Reg.	12.803	1	12.803	14.037	0.006
	€	7.297	8	0.912		
	Sum	20.100	9			
GS	Reg.	99.276	1	99.276	36.728	0.000
	€	21.624	8	2.703		
	Sum	120.900	9			
CS	Reg.	21.382	1	21.382	7.063	0.029
	€	24.218	8	3.027		
	Sum	45.600	9			
PPF	Reg.	8.194	1	8.194	6.423	0.035
	€	10.206	8	1.276		
	Sum	18.400	9			

**Coefficients for Change in FRA Investors**

FRA		Unstandardized Coeff.		Standardized Coeff.	T Score	Sig.
	B	S.E.	$\beta$ Score		B	
BTD	Constant	51.667	1.279		40.41	0.000
	Yrs	-2.230	0.206	-0.968	-10.824	0.000
POTD	Constant	18.533	0.652		28.407	0.000
	Yrs	0.394	0.105	0.798	3.747	0.006
GS	Constant	-0.133	1.123		-0.119	0.908
	Yrs	1.097	0.181	0.906	6.06	0.000
CS	Constant	3.000	1.189		2.524	0.036
	Yrs	0.509	0.192	0.685	2.658	0.029
PPF	Constant	5.867	0.772		7.603	0.000
	Yrs	0.315	0.124	0.667	2.534	0.035

a Dependent Variable: FRA Investors Size.

b Predictors: (Constant), Years

€-Residual Error

**Source:** Survey Data and Compiled through SPSS.

Table 13 indicated that the linear model is fit with  $f = 117.149, 14.037, 36.728, 7.063$  and  $6.423$  and  $p = 0.000, 0.006, 0.000, 0.029$  and  $0.035$  respectively for BTD, POTD, GS, CS and PPF, which led researcher to reject the null hypothesis viz. There is no substantive changes in the fixed return investment avenues in the last decade. It implies that the fixed return investment avenues selection by the middle-class investors from Kumaun division have been changed in the last decade and which expected to vary in coming years. Also, it shows a slight downward relationship with time which may decline with time, taking all the underlying components into considerations.

Secondly, **H<sub>03.2</sub>**: There is no substantive changes in the variable return investment avenues in the last decade.

The significance acceptance level was 5 percent. The results are interpreted in the following manner

The responses are tested in SPSS 28 with regression model. The variable return investment avenues selection patterns a trend line and forecasted line for the last decade which can be seen in Figure 3 with a scatter plot by linear equation Here,  $Y$  (Initial of the Instruments) = Change in variable return investment avenues selection,  $X$  = Year. Hence the equation can be written as:

Changes in different variable return investment avenues (FRA) selection

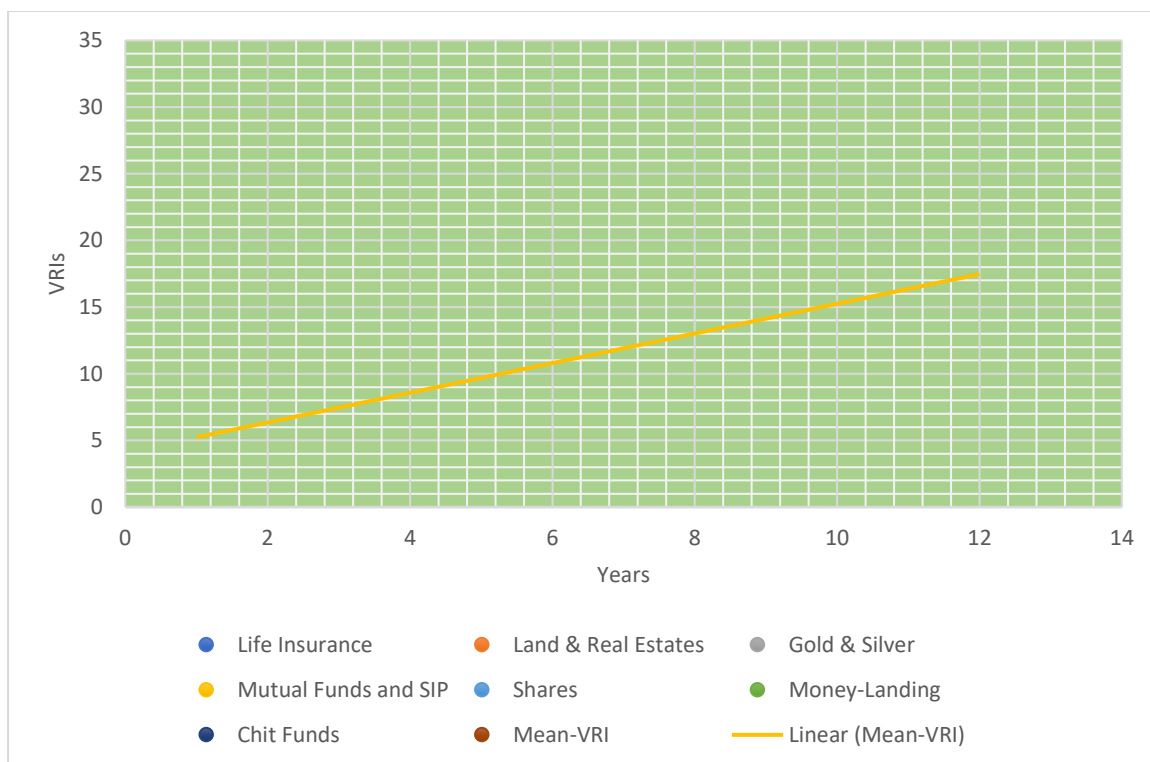
$$Y (\text{LIP}) = 19.8 + 1.273 X + \epsilon; Y (\text{L\&RE}) = 5.933 + 1.358X + \epsilon;$$

$$Y (\text{G\&S}) = 3.867 + 1.006X + \epsilon; Y (\text{MF\&SIP}) = -0.533 + 2.079X + \epsilon;$$

$$Y (\text{ES}) = -1.200 + 1.618X + \epsilon; Y (\text{PL}) = 0.200 + 0.273X + \epsilon;$$

$$Y (\text{CF}) = 0.800 + 0.182X + \epsilon; Y (\text{MVRA}) = 4.124 + 1.113X + \epsilon$$

**Figure 3- Line Fit Plot of Variable Return Investment Avenues Selection**



The above trend line equation indicating a slope line of 1.273, 1.358, 1.006, 2.079, 1.618, 0.273, 0.182 and 1.113 and constant score of 19.8, 5.933, 3.867, -0.533, -1.200, 0.200, 0.800 and for 4.124 LIP, L&RE, G&S, MF&SIP, ES, PL, CF and Mean VRA respectively. Which implies the change in the value of Y generated by a one unit change in the X score. The R<sup>2</sup> shows a significant higher Score i.e., 0.918, 0.914, 0.800, 0.907, 0.878, 0.758, 0.758 and 0.919 respectively. Which means the independent variable i.e., year as a predictor explains given fractional variability of the dependent variable 'variable return investment avenues' selection pattern in the last decade.

Furthermore, these trend line and variable return investment avenues selection pattern have been tested in regression, anova and coefficient of residual value which can be seen in the table 14.

**Table 14 Summary of Model for Changed Investors for VRA**

	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Estimate-Std. Error
LIP	0.958	0.918	0.908	1.22289
L&RE	0.956	0.914	0.903	1.33938
G&S	0.894	0.800	0.775	1.61621
MF&SIP	0.953	0.907	0.896	2.13272
ES	0.937	0.878	0.863	1.93884
PL	0.870	0.758	0.727	0.49543
CF	0.870	0.758	0.727	0.33029
Mean VRA	0.959	0.919	0.909	1.05751

ANOVA-VRA Investors						
		$\sum$ (Squares)	D.f.	(Mean) <sup>2</sup>	F Score	Sig.
LIP	Reg.	133.636	1	133.636	89.36 2	0.00 0
	€	11.964	8	1.495		
	Sum	145.600	9			
L&RE	Reg.	152.048	1	152.048	84.75 7	0.00 0
	€	14.352	8	1.794		
	Sum	166.400	9			
G&S	Reg.	83.503	1	83.503	31.96 8	0.00 0
	€	20.897	8	2.612		
	Sum	104.400	9			
MF&SIP	Reg.	356.512	1	356.512	78.38	0.00 0
	€	36.388	8	4.548		
	Sum	392.900	9			
ES	Reg.	216.027	1	216.027	57.46 8	0.00 0
	€	30.073	8	3.759		
	Sum	246.100	9			
PL	Reg.	6.136	1	6.136	25	0.00 1
	€	1.964	8	0.245		
	Sum	8.100	9			
CF	Reg.	2.727	1	2.727	25	0.00 1
	€	0.873	8	0.109		
	Sum	3.600	9			
Mean VRA	Reg.	102.117	1	102.117	91.31 1	0.00 0
	€	8.947	8	1.118		
	Sum	111.063	9			
Coefficients for Change in VRA Investors						
	Unstandardized Coeff.		Standardized Coeff.	T Score	Sig.	
	B	S.E.	$\beta$ Score			

LIP	Constant	19.8	0.835		23.701	0.000
	Yrs	1.273	0.135	0.958	9.453	0.000
L&RE	Constant	5.933	0.915		6.485	0.000
	Yrs	1.358	0.147	0.956	9.206	0.000
G&S	Constant	3.867	1.104		3.502	0.008
	Yrs	1.006	0.178	0.894	5.654	0.000
MF&SIP	Constant	-0.533	1.457		-0.366	0.724
	Yrs	2.079	0.235	0.953	8.853	0.000
ES	Constant	-1.200	1.324		-0.906	0.391
	Yrs	1.618	0.213	0.937	7.581	0.000
PL	Constant	0.200	0.338		0.591	0.571
	Yrs	0.273	0.055	0.870	5.000	0.001
CF	Constant	0.800	0.226		3.546	0.008
	Yrs	0.182	0.036	0.870	5.000	0.001
Mean VRA	Constant	4.124	0.722		5.708	0.000
	Yrs	1.113	0.116	0.959	9.556	0.000
<p>a Dependent Variable: VRA Investors Size.  b Predictors: (Constant), Years  €-Residual Error  <b>Source:</b> Survey Data and Compiled through SPSS.</p>						

Table 14 indicated that the linear model is fit with  $f = 89.362, 84.757, 31.968, 78.38, 57.468, 25, 25$  and  $91.311$  respectively for LIP, L&RE, G&S, MF&SIP, ES, PL, CF and Mean VRA and  $p = 0.000, 0.000, 0.000, 0.000, 0.000, 0.001, 0.001$  and  $0.000$ , which led

researcher to reject the null hypothesis viz. There are no substantive changes in the variable return investment avenues in the last decade. It implies that the variable return investment avenues selection by the middle-class investors from Kumaun division have been changed in the last decade and which expected to vary in coming years. Also, it shows a negative relationship with time which may decline with time, taking all the underlying components into considerations.

### Assessment of Reasons of Changing Scenario of Investments

From the above analysis it is very evident that investment pattern have been changed in the last decade of Kumaun division. Now, it becomes very important to identify all those components which made these changes significant. Therefore, researcher has frame one more hypothesis to identify the reason of this changing scenario:

**H<sub>04</sub>:** There is no single reason of changing selection of investment avenues, which affect investment decision of middle-class investor.

To analyse the above problem investors were asked about the components which may have affect the investment decision. Which are listed as:

Income of the people have been grown in the last decade-C1, Risk tolerance level have been grown in the last decade -C2, Transaction loads in the financial market has been decreased-C3, Savings have been grown in the last decade -C4, Financial awareness of the investors has been rised-C5, Safety of principal have been grown in the last decade-C6, Rules and Regulations become more transparent-C7, Investment Technical and legal environment of the market has been improved-C8, Online Methods-C9, Investing and Reinvesting Process takes less time now-C10

The Overall Cronbach's Alpha value is 0.892 which define the validity of the study is significant and table 15 shows the correlation matrix of each reason with other reasons.

**Table 15 Correlation Matrix**

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
C1	1	0.165	-0.247	0.289	0.417	0.251	0.297	0.5	0.09	0.319
C2	0.165	1	0.436	0.297	0.607	0.099	0.307	0.348	0.356	0.339
C3	-0.247	0.436	1	0.273	0.325	0.201	0.203	0.228	0.369	0.124
C4	0.289	0.297	0.273	1	0.747	0.628	0.632	0.492	0.344	0.627
C5	0.417	0.607	0.325	0.747	1	0.52	0.535	0.606	0.543	0.686
C6	0.251	0.099	0.201	0.628	0.52	1	0.452	0.423	0.492	0.381
C7	0.297	0.307	0.203	0.632	0.535	0.452	1	0.667	0.231	0.594
C8	0.5	0.348	0.228	0.492	0.606	0.423	0.667	1	0.489	0.593
C9	0.09	0.356	0.369	0.344	0.543	0.492	0.231	0.489	1	0.446
C10	0.319	0.339	0.124	0.627	0.686	0.381	0.594	0.593	0.446	1

**Source:** Survey Data and Compiled through SPSS.

Now, to assessed the adequacy of the study with the above-mentioned factors researcher employed KMO and Bartlett's measurement to move further:

**Table 16 KMO and Bartlett's Testa**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		0.753
<b>Bartlett's Test of Sphericity</b>	Approx. Chi-Square	321.193
	df	45
	Sig.	0.000
a Based-on correlations <b>Source:</b> Survey Data and Complied through SPSS.		

Table 16 shows KMOs measures of adequacy as 0.753 and Bartlett's Test of Sphericity as 321.193 with the significance level of 0.000 which confirm the adequacy of the factors and allow researcher to test further to identify the reason of changing scenario.

The researcher has performed factor analysis in table 17 to identify the reason of changing scenario. The Components loaded for components for changes obtained 62.70%. This reveals that if respondents considering of each component, they may possibly affect their investment decision by 62.70%.

**Table 17 Components Extraction**

Compon ent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.911	46.211	46.211	3.911	46.211	46.211
2	1.395	16.489	62.700	1.395	16.489	62.700
3	0.970	11.460	74.160	0.970	11.460	74.160
4	0.579	6.837	80.997			
5	0.493	5.829	86.826			
6	0.466	5.510	92.336			
7	0.275	3.244	95.579			
8	0.179	2.115	97.694			
9	0.118	1.389	99.084			
10	0.078	0.916	100.000			
Extraction Method: Principal Component Analysis. a When analyzing a covariance matrix, the initial eigenvalues are the same across the raw and rescaled solution.						

**Source:** Survey Data and Compiled through SPSS.

**Table 18 Components Communalities**

	<b>Initial</b>	<b>Extraction</b>
C1	1	0.529
C2	1	0.910
C3	1	0.838
C4	1	0.683
C5	1	0.804
C6	1	0.845
C7	1	0.569
C8	1	0.648
C9	1	0.514
C10	1	0.742
Extraction Method: Principal Component Analysis. <b>Source:</b> Survey Data and Compiled through SPSS.		

The results drawn from the table 18 led researcher to reject the null hypothesis viz., There is no single reason of changes which affect investment decision of middle-class investor. Because there are more than one reason which significantly influence the changing scenario as Table 18 of components communalities shows that C2 is extracted as 0.802. which implies that the extracted component significantly affected the investment decision followed by C6 (0.845), C3 (0.838), C5 (0.804) and C9 (0.742)

## **FINDINGS AND CONCLUSION**

As seen from the data analysis that this study obtaining responses from all possible demographic variables and obtained Cronbach's Alpha i.e., 0.892 validity to make it reliable information. It has been observed that the income pattern of the respondents belongs to the middle-class has been rises in the last decade since 2011 to 2020 and it is likely to go up in future also. The income pattern will grow with this equation i.e.,  $\text{Income pattern} = 1.411 + 0.243 * \text{Year} + \epsilon$  as the  $f(0.000)$  score affirm the results drawn. It is also been observed that in initial phase of this decade people responded low levels of savings habits as they save less than 10 % from their income but with the increase in time and acknowledging their future need they started saving more to protect their future needs. The authenticity of this statement is confirmed by the  $f = 308.322$  and  $\text{sign.} = 0.000$  ( $p < 0.05$ ) and drawn a upwards slope in the linear regression model which continuously rise in future with the equation (saving & investment pattern  $= 1.421 + 0.148 * \text{Year} + \epsilon$ ).

The prime concern for the investment in Kumaun division was found to be safety of principal which shaped their interest in fixed return avenues. But it was found with other studies also that financial literacy of the investors has been increased in the Uttarakhand

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and the reason being they are trying to diversify their portfolio. Hence, most of the fixed return avenues respondents have reduces in the last decade which can be seen with the equations viz.  $Y (BTD) = 51.667 - 2.230X + \epsilon$ ;  $Y (POTD) = 18.533 - 0.394X + \epsilon$ ;  $Y (GS) = -0.133 + 1.097X + \epsilon$ ;  $Y (CS) = 3.000 + 0.509X + \epsilon$ ;  $Y (PPF) = 5.867 + 0.315X + \epsilon$ . This result confirmed by f score as  $f = 117.149, 14.037, 36.728, 7.063$  and  $6.423$  and  $p = 0.000, 0.006, 0.000, 0.029$  and  $0.035$  respectively for BTD, POTD, GS, CS and PPF. On the other side, investors interest for variable return avenues continuously increasing and likely to up in the future also with the equations viz.,  $Y (LIP) = 19.8 + 1.273 X + \epsilon$ ;  $Y (L\&RE) = 5.933 + 1.358X + \epsilon$ ;  $Y (G\&S) = 3.867 + 1.006X + \epsilon$ ;  $Y (MF\&SIP) = -0.533 + 2.079X + \epsilon$ ;  $Y (ES) = -1.200 + 1.618X + \epsilon$ ;  $Y (PL) = 0.200 + 0.273X + \epsilon$ ;  $Y (CF) = 0.800 + 0.182X + \epsilon$ ;  $Y (MVRA) = 4.124 + 1.113X + \epsilon$ . This results also confirmed by f score as  $89.362, 84.757, 31.968, 78.38, 57.468, 25, 25$  and  $91.311$  respectively for LIP, L&RE, G&S, MF&SIP, ES, PL, CF and Mean VRA and  $p = 0.000, 0.000, 0.000, 0.000, 0.000, 0.001, 0.001$  and  $0.000$ . The reasons of this substantive change in the financial avenues is founded by testing components by KMOs measures of adequacy as  $0.753$  and Bartlett's Test of Sphericity as  $321.193$  with the significance level of  $0.000$ . It reveals that if respondents considering of each component, they may possibly affect their investment decision by  $62.70\%$ . The major reasons of the changing scenario was found by communalities which shows that people feels that they can tolerate some specified level of risk because they are more aware now. Also, every investment related transaction is available in online mode and the transaction load is comparatively low.

This study conclude that income, savings and investment scenario have been changed for middle class people in the last decade of Kumaun division. Now, people are tending to invest there money to the variable return avenues also. Investors who are looking for the investment in variable return avenues need to be encouraged to take on some risk in their portfolios by marketers. Now, marketers should design such variable return products which cooperating risk and return trade off model with some more emphasise on the degree of safety for the principal as it was the prime concern in this division. Moreover, investors can be encouraged to explore newer investment avenues they are unaware of and include them in their portfolio.

## **LIMITATION OF THE STUDY**

The definition of the middle-class investors modified based on different parameters, responses from sample respondents and convenience to conduct this study. It is only useful for this study only. The sample size is only sixty from Kumaun division only. Therefore, the outcomes may not be generalized in the same manner across the other part of the country. This study is considering the last decade where people can be responded biased information. Also, people are feeling unsecured about sharing their personal financial information which may also leads to biased responses.

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