Changing Behaviour of Middle-Class Households towards Risk & Return Perception for Investment

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ABSTRACT

There has been an enormous amount of information collected over the past decade about financial markets and financial institutions. Middle class households' investors are far less well understood. Investing motivations and risk perceptions of investors, as well as investor risk perceptions and attitudes, are examined here. It is also examined how income and investing pattern relate to risk and returns. Portfolio managers and investors are faced with the dilemma of balancing risk and return. Investors generally aren't motivated to take risks for their own sake, according to the convention in finance and economics. Then it would seem feasible to expect that actual yields on individual investment may deviate according to their risks. There is consensus that there is a positive relationship between risk and expected return, even if the conclusions are not totally consistent concerning the shape of the risk-return function. The aim of this paper is to demonstrate that risk-return preferences and motives of investors can be addressed by analyzing the investments. This empirical study has been designed to analyse the middle-class households risk preference over the last decade in the Kumaun division using structure schedule for 250 households. Researcher used linear regression, anova, coefficient, chi-square test and factor analysis model to explore the problem. It is found that people attitude towards have been changed in the last decade towards risk and return trade off and they are reshaping their motives of investment with the change in time.

Keywords-- Income, Investment, Changes, Middle-Class, Risk-Returns

I. INTRODUCTION

The financial education movement has gained traction in all leading economies over recent years. Investing is becoming increasingly self-regulated by individual investors, but at the same time they have to deal with financial instruments whose complexity makes it impossible for them to make wise decisions about their investments. Investors are assumed to exploit diversification to maximize returns and minimize risks according to traditional finance theory, irrespective of their financial knowledge. People behave differently when it comes to investing, and their investment preferences differ as well. Each individual's behavior in terms of investing is influenced by a variety of factors. A variety of financial products are invested in by individuals seeking high returns over time and with varying levels of risk. The modern investor has the option of investing in a number of avenues, but he or she must determine which avenue to follow after a thoughtful study of the market and taking into account his or her needs and financial resources. When individuals engage in markets in an unpredictable manner, their motives manifest themselves in an interesting way that is hard to predict. In recent years, there has been increasing evidence that investors don't behave as conventional finance theory would predict. The researcher discuss evidence that suggests individuals behave differently when it comes to returns maximization resulting changes in the motives of investments.

II. DEFINING CONCEPTS

Returns

Generally, return is the excess over an initial investment earned over a period of time. It is possible to calculate return in rupees or as a percentage. When it comes to shares, the rate of return would include dividends and capital gains.

Risk

Risk of return refers to the variability of returns. Generally, rate of return variability is defined as the degree of deviation (or dispersion) between individual rates of return. These deviations can be measured via variance or standard deviation.

Systemic Risk

A systemic risk arises from economy-wide uncertainties as well as the tendency for individual securities to move along with market fluctuations. The reduction of this risk cannot be achieved through diversification. Even when an investor has a well-diversified portfolio of securities, they are exposed to systematic or market risk.

Unsystematic Risk

Individual securities have unique uncertainties, which create unsystematic risk (also called unique risk). Investing in a variety of securities to build diversified portfolios can reduce the uncertainty of investment decisions. Each security in a portfolio cancels out the uncertainties of the others. Therefore, diversification can minimize unsystematic risk.

An individual is described as:
Risk Averse or Risk Avoiders are those individual who would accept a certain payment, such rather than taking a risk and possibly gaining nothing.
Risk Neutral are those individual who cannot decide whether to bet (take risk) or receive a certain amount.
Risk Lover or Risk Seekers are those individual who shows their willingness to accept the bet or risk, even with a guaranteed payment of more than just satisfactory.

III. LITERATURE REVIEW

Jasim Y. A. Ajmi reports that risk tolerance of individual investors in emerging markets declines when they have more financial commitments as well as when they are approaching their retirement age or are retired.

Megha Goyal and Dr Anukrati Sharma (2014) assessed the investment pattern adopted by middle class investors in India, including both groups engaged in both service and business activities, whose incomes are ranging from Rs. 2 Lakh to Rs. 5 Lakh. Choosing the particular income group was done with an objective to determine how they could manage their investments despite their small incomes after spending their huge expenses. In the study, several important questions have been addressed, such as the preferences for investments such as real estate, gold, precious stones, money market, and capital market, the investment pattern adopted and the reasons for opting for a particular investment instrument. Because they have a limited investment portfolio, income class members are looking for a safer investment avenue or one with a lower risk factor. As a result, they preferred saving with banks and post offices, life insurance policies, Public Provident Funds, etc. Due to low returns, those who invest in such avenues do not feel satisfied enough with their decision to invest. These investments yield low returns, preventing them from meeting future needs.

An empirical study of investment behavior of salaried class investors in Kerala was conducted by George Varghese (2015). A research report claims that most investors do not wish to take more than moderate risks, opt for modest returns, and prefer to see long-term results. In India, although there are many investment options are available and people tend to concentrate on the major long-term investments avenues such as fixed deposits, gold, life insurance, post office savings, real estate, provident funds, and short-term investments such as chit funds and private financial businesses.

The investment behavior of College Teachers at Government and Private Colleges in Dharmapuri District is studied by A Ushalakshmi & K Selvavinayagam (2019). They believe that investment decisions should be based primarily on safety, despite being from the salaried class of both public and private universities. As a result of not being aware of the grievance process, this behavior occurred due to a lack of financial literacy. The most common investments are gold, real estate, recurring bank deposits, and insurance. Other investors, who are knowledgeable about financial markets, invest in other options like share markets, particularly in mutual funds and systematic investment plans.

Syed Tabassum Sultana reveals in An Empirical Study of Indian Individual Investors' Behavior that risk tolerance is determined by independent variables like age, financial commitments, and life stage of the individual investor.

IV. STATEMENT OF THE PROBLEM

From the investor's perspective, the significance of risk-return relationships should be emphasized. Any changes have occurred in the last decade with regard to investment patterns, investment avenues, and investment risk & returns must be identified. Investors would make better and more accurate decisions about investments in different industries if they could evaluate the relationship between expected rate of return and asset risk.

V. OBJECTIVES

1. To identify the middle-class household's attitude towards risk in the past decade of Kumaun division,
2. To identify the middle-class household's risk perception in the Kumaun division,
3. To identify the proportional changes in the fixed and variable return avenues in the past decade of Kumaun division,

VI. HYPOTHESIS

H_{01}: There is no changes occurred in the middle-class household's attitude towards risk in the past decade of Kumaun division,
H_{02}: There is no association between risk assessment & perception and investment pattern.
H_{03}: The perception of the middle-class household's has no association with the investment pattern.
H_{04}: There is no changes occurred in the proportion of investment in the fixed and variable return avenues in the past decade of Kumaun division,

VII. METHODOLOGY

This empirical study was conducted using a descriptive research design. Due to the fact that the data of the middle-class investors were unknown, this study employed purposive and snowball sampling techniques. References were used to collect data using a snowball sampling method. It was determined that a sample size of 250 people would be needed for the study, representing the districts of Almora, Bageshwar, Champawat, Nainital, Pithoragarh and Udham Singh Nagar in Kumaun. A combination of primary and

secondary data was used for the study. The schedule method of primary data collection utilized a structured questionnaire and direct interview with investors. There are two parts to the questionnaire. Section 1 focuses on the demographic characteristics of respondents. Secondly, investors are asked to give information about their risk preferences & attitude and motives of the investments over the last decade. According to NCAER and McKinsey Global Institute (MGI) studies, Indian households can be classified into five income groups. Six distinct groups of Indians are identified based on NCAER and McKinsey Global Institute (MGI)surveys: the Deprived (US $469 to Rs. 90000), Aspirers (US $4376 to Rs. 200000), Seekers (US $4376 to Rs. 500000), Strivers (US $ 10941 to USD 21882), and Global Indians (US 21882 to Rs. 1000000). In the near future, Nirmala Sitharaman will rename the group of people whose incomes fall between Rs 6 and 18 lakh as those earning between Rs 6 and 18 lakh annually. We will thus choose to include only respondents with an annual household income of over Rs. 5 lakh in this study

(as reported by Hurun India Wealth Report). So, there will be a significant number of respondents from lower middle class (between Rs. 6 lakh and 10 lakh), middle class (between Rs. 10 lakh and 15 lakh) and upper middle class (between Rs. 15 lakh and 18 lakh). For the purpose of this study, only respondents will be classified according to this classification. We subsequently coded and tested the data using MS Excel 2019 and IBM SPSS 28.01.00.

VIII.   DATA ANALYSIS

Demographic Profiles of the Middle-Class Investors
This study is divided into two parts, first to identify those demographic variables which can generate the validity of this study by occupying responses from different demographic aspects. Second, their risk perception and motives profile by which researcher would be able to identify the effect of these factors on the investment decision making process.

Variables	Response Set	Valid Responses	Valid %	Variables	Response Set	Valid Responses	Valid %
Districts of Kumaun Divisions	Almora	61	24.4	Dependent Members	0 to 2	115	46
	Bageshwar	53	21.2		3 to 4	87	34.8
	Champawat	44	17.6		5 to 6	35	14
	Nainital	64	25.6		More than 6	13	5.2
	Pithoragarh	13	5.2	Investment Preference	Low	65	26
	Udham Singh Nagar	15	6		Moderate	121	48.4
Genders	Male	164	65.6		High	64	25.6
	Female	86	34.4	Risk Preference	Low	117	46.8
Marital Status	Single	67	26.8		Moderate	94	37.6
	Married	183	73.2		High	39	15.6
Age	Below 30	53	21.2	Hired Financial Advisor	No	172	68.8
	31-40	75	30		Yes	78	31.2
	41-50	71	28.4	Past Experience of Saving & Investment	Fresher (no past experience)	38	15.2
	51-60	41	16.4		Neutral (comfortable with traditional avenues)	104	41.6
	Over 60	10	4		conversant (comfortable with variable return avenues)	68	27.2
Education	10	29	11.6		Expert (regular trade in share market)	40	16
	10+2	35	14	Time Horizon of Investment	Below 5 years	88	35.2
	UG (10+2+3)	66	26.4		6-10 years	62	24.8
	PG (10+2+3+2)	60	24		11-15 years	51	20.4
	Doctorate	35	14		16-20 years	31	12.4
	Professional Edu.	25	10		Over 20 years	18	7.2
Profession	Farmer	21	8.4	Expected	Less than 8%	91	36.4

				Return	Between 9 to 16%	77	30.8
	Salaried in Private Firm	18	7.2		Between 17 to 24%	48	19.2
	Salaried in Corporate Sector	38	15.2		Greater than 24%	34	13.6
	Salaried in Government Sector	94	37.6		Low	75	30
	Business	51	20.4	Financial Literacy	Moderate	103	41.2
	Professional	28	11.2		High	72	28.8
Income Group	Rs. 6 Lakh to Rs 10 Lakh	84	33.6	Risk Assessment before Investment	No	108	43.2
	Rs. 10 Lakh to Rs 15 Lakh	96	38.4		Yes	142	56.8
	Rs. 15 Lakh to Rs 18 Lakh	70	28		Total	250	100
Source: Survey Data and Complied through SPSS.							

Table 1 informing that this survey is occupying responses from all the districts of Kumaun division i.e., 24.4%, 21.2%, 17.6%, 25.6%, 5.2% and 6% from Almora, Bageshwar, Champawat, Nainital, Pithoragarh, Udham Singh Nagar respectively. The gender wise respondents who participated in this study are male and female as 65.6% and 34.4% respectively. In which 26.8% are single and 73.2% are married and they are belonging from Below 30 (21.2%), 31-40 (30%), 41-50 (28.4%), 51-60 (16.4%) and Over 60 (4%). They are having qualifications 10th, 10+2, UG (10+2+3), PG (10+2+3+2), Doctorate, Professional Edu. responses as 11.6%, 14%, 26.4%, 24%, 14% and 10% respectively. In which 8.4% are farmers, 7.2% are salaried in private firm, 15.2% are salaried in corporate sector, 37.6% are salaried in government sector, 20.4% are own their business and 11.2% are working as professional. The 33.6 % respondents are belonging from Rs. 6 Lakh to Rs 10 Lakh group, 38.4% respondents are belonging from Rs. 10 Lakh to Rs 15 Lakh and 28% respondents are belonging from Rs. 15 Lakh to Rs 18 Lakh. The 46% people are having 0 to 2 dependents members, 34.8 % people are having 3 to 4 dependents members, 14% people are having 5 to 6 dependents members, 5.2% More than 6 dependents members. Among them, 26% investors believes that they have Low preference of investment 48.4% investors believes that they have Moderate preference of investment 25.6% investors believes that they have High preference of investment. Also, 46.8% investors believes that they have Low risk preference 37.6% investors believes that they have Moderate risk preference 15.6% investors believes that they have High risk preference. Surprisingly, majority (68.8%) of the investors does not have any financial advisor. In this survey it is found out that 15.2% investors were Fresher who have no past experience, 41.6% investors were Neutral who are comfortable with traditional avenues only, 27.2% investors were conversant who are comfortable with variable return avenues and 16% investors were Expert who are regularly trade in share market. Among them 35.2% are investing for Below 5 years, 24.8% are investing for 6-10 years, 20.4% are investing for 11-15 years, 12.4% are investing for 16-20 years and 7.2% are investing for Over 20 years. Also, 36.4% investors expect Less than 8% returns on their portfolio, 30.8.3% investors expect Between 9 to 16% returns on their portfolio, 19.2% investors expect Between 17 to 24% returns on their portfolio, 30.6% investors expect Greater than 24% returns on their portfolio. This study also revealed that 30% people possess Low financial literacy, 41.2% people possess Moderate financial literacy and 28.8% people possess High financial literacy. Majority 56.8% of the respondents assessed their risk profile before investing.

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
0.923	0.923	85
Source: Survey Data and Complied through SPSS.		

Investors Behaviour towards Risk in the Last Decade

The total responses for last decade on behaviour towards risk are shown in the table 3, where it is clearly visible that most of the respondents (i.e., 40.40%) are Conservative (Risk-Averse). To analysis the whether the behaviour of investors has been changed in the last decade or not in the Kumaun division following hypothesis has been made:

H_{01}: There is no changes occurred in the middle-class household's attitude towards risk in the past decade of Kumaun division.

Table 3: Reliability Measures of Investment Profile

| Investors Personality	Responses	%	% of Cases Made
Conservative (Risk-Averse)	1009	40.40%	403.60%
Moderate (Risk-Nutrient)	841	33.60%	336.40%
Aggressive (Risk-Seeker)	650	26.00%	260.00%
Total	2500	100.00%	1000.00%
Source: Survey Data and Complied through SPSS			

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

The responses are tested in SPSS 28 with regression model. The Investors Behaviour towards Risk trend line and forecasted line for the last decade which can be seen in Figure 1 with a scatter plot by linear equation Y= 1.695 + 0.029X + ϵ. Where, Y = Personality changes, X = Year. The equation can be rewritten as: Personality =1.695 + 0.029*Year + ϵ.

Figure 1: Line Fit Plot of Investors Behaviour towards Risk
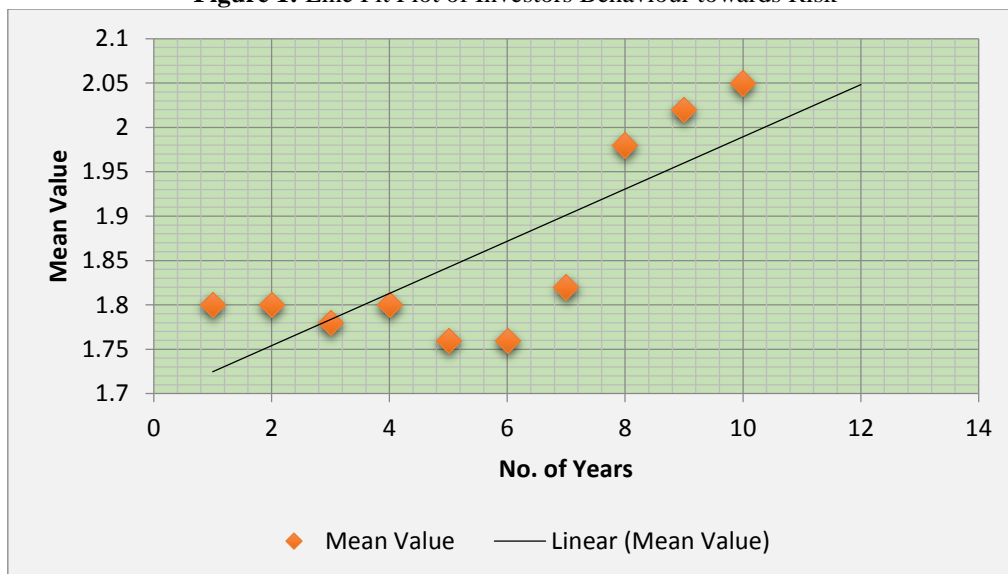
The above trend line equation indicating a slope line of 0.029 and constant score of 1.695, which implies the change in the value of Y generated by a one unit change in the X score. It means for each change in number of years there will be 2.90 percent rise in the Risk taking capacity of investors or risk personality. The R^2 shows a significant higher Score i.e., 0.621. Which means the independent variable i.e., year as a predictor explains 62.10 percent variability of the dependent variable income pattern in the last decade.

Furthermore these trend line and risk personalities have been tested in regression, anova and coefficient of residual value which can be seen in the table 4, 5 and 6.

Table 4: Model Summary

R	R^2	Adjusted R^2	Estimate-Std. Error
0.788	0.621	0.573	0.07376
Predictors: (Constant), Years			
Source: Survey Data and Complied through SPSS.			

Table 5: ANOVA

	$\sum$ (Squares)	D.f.	(Mean)^2	F Score	Sig.
Reg.	0.071	1	0.071	13.100	0.007
€	0.044	8	0.005		
Sum	0.115	9			
a Dependent Variable: Risk Personality Mean Score b Predictors: (Constant), Years €-Residual Error **Source:** Survey Data and Complied through SPSS.					

Table 6: Coefficient

	Unstandardized Coeff.		Standardized Coeff.	T Score	Sig. B
	B	**S.E.**	**β Score**		
Constant	1.695	0.050		33.644	0.000
Yrs	0.029	0.008	0.788	3.619	0.007
Dependent Variable: Risk Personality Mean Score **Source:** Survey Data and Complied through SPSS.					

Table 5 revealing that the linear model is fit with f = 13.10 and p = 0.007 (p<0.05) which led researcher to reject the null hypothesis viz. There is no changes occurred in the middle-class household's attitude towards risk in the past decade of Kumaun division. It implies that the risk taking capacity of the respondents belongs to the middle-class from Kumaun division have been changed in the last decade and which expected to expose for more risk in coming years. Also, it shows a positive relationship with time which it continuously rises with time taking all the underlying components into considerations.

Risk Assessment in the Process of Investment Decision Making

To identify whether the investor assessed their risk in the process of decision making or not and to know the association with investment pattern, researcher have made the following hypothesis:

H_{02}: There is no association between risk assessment and investment pattern.

The tested results are shown of the above problem are shown in the table 7 and 8:

Table 7: Risk Assessment and Investment Patterns Cross Tabulation

		Risk Assessment in the Process		Total
		No	**Yes**	
Less than 10 per cent	Count	486	402	888
	Expected Count	383.6	504.4	888
	% within Risk Assessment in the Process	45.00%	28.30%	35.50%
10-20 per cent	Count	199	339	538
	Expected Count	232.4	305.6	538
	% within Risk Assessment in the Process	18.40%	23.90%	21.50%
20-30 per cent	Count	137	397	534
	Expected Count	230.7	303.3	534
	% within Risk Assessment in the Process	12.70%	28.00%	21.40%
30-40 per cent	Count	97	209	306
	Expected Count	132.2	173.8	306
	% within Risk Assessment in the Process	9.00%	14.70%	12.20%
More than 40 per cent	Count	161	73	234
	Expected Count	101.1	132.9	234
	% within Risk Assessment in the Process	14.90%	5.10%	9.40%
Total	Count	1080	1420	2500
	Expected Count	1080	1420	2500
	% within Risk Assessment in the Process	100.00%	100.00%	100.00%
Source: Survey Data and Complied through SPSS.				

Table 8: Chi-Square Statistic for Risk Assessment and Investment Patterns

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	202.563	4	0.000
Likelihood Ratio	206.450	4	0.000
Linear-by-Linear Association	6.989	1	0.008
N of Valid Cases	2500		
0 cells (.0%) have expected count less than 5. The minimum expected count is 101.09. Source: Survey Data and Complied through SPSS.			

It is very evident from the table 7 that most of the respondents assess their risk in the process of investment decision making. On the other side, table 8 reveals that $\chi^2 = 202.563, p = 0.000$ which led researcher to reject the null hypothesis viz. There is no association between risk assessment and investment pattern. Which implies that Risk Assessment have significant associations with Investment Patterns.

Perception of the Investors regarding Fixed and Variable Return Avenues

Investors were asked some perception based questions to analyse their perception such as P1- Fixed return avenues (FRA) corporates low degree of risk than variable return avenues (VRA), P2- Fixed return avenues (FRA) are designed for those who are not comfortable with share market, P3- Fixed return avenues (FRA) can provide satisfactory returns in the financial market, P4- The risks and returns of the financial markets are not consistent with their defined objectives, P5- variable return avenues (VRA) is better than Fixed return avenues (FRA). To analyse the perception effect on investment researcher has frame following hypoythesis:

H$_{03}$: The perception of the middle-class household's has no association with the investment pattern.

These perceptions were tested with SPSS using generalised linear model. The results have been mentioned below:

Table 9: Omnibus Statistics

Likelihood Ratio Chi-Square	df	Sig.
13.932	4	0.008
Dependent Variable: VRA is better than FRA. Model: (Threshold), P1, P2, P3, P4 a Compares the fitted model against the thresholds-only model. Source: Survey Data and Complied through SPSS.		

The required value of alpha is 0.05 and this model has obtained the significance value of omnibus test as 0.008. Which implies the test variable as well as this model is significant with the $\chi^2 = 13.932$.

Table 10: Perception Model Effect

Source	Type III		
	Wald Chi-Square	df	Sig.
Q25P1	8.218	1	0.004
Q25P2	0.002	1	0.967
Q25P3	0.868	1	0.352
Q25P4	7.085	1	0.008
Dependent Variable: VRA is better than FRA. Model: (Threshold), P1, P2, P3, P4 Source: Survey Data and Complied through SPSS.			

Table 11: Parameters Estimates

Parameter		B	Std. Error	95% Profile Likelihood Confidence Interval		Hypothesis Test		Sig.	Exp(B)	95% Profile Likelihood Confidence Interval for Exp(B)	
				Lower	Upper	Wald Chi-Square	df			Lower	Upper
Threshold	[P5=1]	-4.065	0.6489	-5.372	-2.821	39.242	1	0.000	0.017	0.005	0.060
	[P5=2]	-3.677	0.6207	-4.919	-2.48	35.088	1	0.000	0.025	0.007	0.084
	[P5=3]	-1.475	0.5468	-2.562	-0.412	7.273	1	0.007	0.229	0.077	0.662
	[P5=4]	-0.539	0.5364	-1.603	0.506	1.008	1	0.315	0.584	0.201	1.659
P1		-0.610	0.2129	-1.034	-0.198	8.218	1	0.004	0.543	0.356	0.821
P2		0.007	0.1608	-0.309	0.324	0.002	1	0.967	1.007	0.734	1.382
P3		0.166	0.1782	-0.184	0.517	0.868	1	0.352	1.181	0.832	1.676
P4		0.366	0.1373	0.099	0.638	7.085	1	0.008	1.441	1.104	1.893
(Scale)		1a									

Dependent Variable: VRA is better than FRA.
Model: (Threshold), P1, P2, P3, P4
a Fixed at the displayed value.
Source: Survey Data and Complied through SPSS.

In the above (table 11) results of parameters estimates P1- Fixed return avenues (FRA) corporates low degree of risk than variable return avenues (VRA) and P4 P4- The risks and returns of the financial markets are not consistent with their defined objectives which implies that the perception of the investors in respect to VRA is influence by 0.543 and 1.441 respectively for each component changed for agreed or disagreed views for those who believes more in VRA. On the other hand, the significant value of P2- Fixed return avenues (FRA) are designed for those who are not comfortable with share market and P3- Fixed return avenues (FRA) can provide satisfactory returns in the financial market is more than alpha (0.05) indicating that it does not fit for this model. The omnibus test statistics and perception model effect wald-statistics outcomes are 0.008 and 0.004 respectively which leads to reject the null hypothesis viz., The perception of the middle-class household's has no association with the investment pattern as it is less than the alpha value (0.05).

Changes in the Proportion of Investment in FRA and VRA

In the above analysis it is evident that household's perception and attitude towards FRA and VRA has been changed in the last decade. Now, it is really important to know that what proportional changes has been occurred in the last decade towards FRA and VRA. For this problem researcher has made the following hypothesis:

H04: There is no changes occurred in the proportion of investment in the fixed and variable return avenues in the past decade of Kumaun division,

To reach the fourth hypothesis researcher divide it into two sub hypothesis. Firstly

H04.i: There is no changes occurred in the proportion of investment in the fixed return avenues in the past decade of Kumaun division

Table 12: Descriptive Overview of FRA in the last decade

		FRA Prop-2011	FRA Prop-2012	FRA Prop-2013	FRA Prop-2014	FRA Prop-2015	FRA Prop-2016	FRA Prop-2017	FRA Prop-2018	FRA Prop-2019	FRA Prop-2020
N	Valid	250	250	250	250	250	250	250	250	250	250
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		75.16	71.28	68.96	66.42	63.86	61.36	57.74	53.44	50.96	49.24
Median		75	75	70	70	65	65	65	55	55	50
Mode		75	60	55a	55	55	65	65	35	35	30
Std. Deviation		11.502	13.955	14.628	15.725	16.773	17.572	19.367	20.426	20.102	19.656
a Multiple modes exist. The smallest value is shown											
Source: Survey Data and Complied through SPSS.											

Table 12 shows that households were invested their majority of saved money into FRA in the last decade as depicted in the column FRA Prop-2011 investors invest 75.16% of their savings while in 2020 it was going down to 49.24%.

Table 13: t- Test Outcomes-FRA (2011 to 2020)

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Prop of FRI in 2011 - Prop of FRI in 2020	25.92	9.279	0.587	24.764	27.076	44.168	249	0.000
Source: Survey Data and Complied through SPSS.									

The t-test outcomes shown in table 13 revealed that t- statistic is 44.168 and the Sig. (2-tailed) is 0.000. It implies that there is a significant difference in the proportion of FRA in the last decade. Therefore, the first sub-hypothesis (i.e., There is no changes occurred in the proportion of investment in the fixed return avenues in the past decade of Kumaun division) has been rejected. The second hypothesis framed by researcher is:

H$_{04.ii}$: There is no changes occurred in the proportion of investment in the variable return avenues in the past decade of Kumaun division.

Table 14: Descriptive Overview of VRA in the last decade

		VRA Prop-2011	VRA Prop-2012	VRA Prop-2013	VRA Prop-2014	VRA Prop-2015	VRA Prop-2016	VRA Prop-2017	VRA Prop-2018	VRA Prop-2019	VRA Prop-2020
N	Valid	250	250	250	250	250	250	250	250	250	250
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		24.84	28.72	31.04	33.58	36.14	38.64	42.26	46.56	49.04	50.76
Median		25	25	30	30	35	35	35	45	45	50
Mode		25	40	25a	45	45	35	35	65	65	70
Std. Deviation		11.502	13.955	14.628	15.725	16.773	17.572	19.367	20.426	20.102	19.656
Multiple modes exist. The smallest value is shown											
Source: Survey Data and Complied through SPSS.											

Table 14 shows that households were invested their majority of saved money into FRA in the last decade as depicted in the column FRA Prop-2011 investors invest 75.16% of their savings while in 2020 it was going down to 49.24%.

Table 15: t- Test Outcomes-VRA (2011 to 2020)

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Prop of VRI in 2011 - Prop of VRI in 2020	-25.92	9.279	0.587	-27.076	-24.764	-44.168	249	0
Source: Survey Data and Complied through SPSS.									

The t-test outcomes shown in table 13 revealed that t- statistic is -44.168 and the Sig. (2-tailed) is 0.000. It implies that there is a significant difference in the proportion of VRA in the last decade. Therefore, the first sub-hypothesis (i.e., There is no changes occurred in the proportion of investment in the variable return avenues in the past decade of Kumaun division) has been rejected.

The t statistic for both sub-hypothesis leads to reject the fourth null hypothesis viz., There is no changes occurred in the proportion of investment in the fixed and variable return avenues in the past decade of Kumaun division. It is inferred that the Kumaun division's household investors has changed their proportion of investment in the fixed and variable return avenues in the last decade.

IX.   FINDINGS AND CONCLUSION

Before discussing the findings, this study obtained 0.923 score for Cronbach's Alpha test which indicates that the findings of this study occupying a higher reliability score. It has been observed that the most of the investors (i.e., 40.40%) perceived themselves as Conservative or Risk-Averse investor in the last decade followed by 33.60% of Neutral or Risk-Nutrient and 26%Aggressive or Risk-Seeker. But the attitude of the households investors towards risk has been changed in the last decade as investors exposing themselves towards risk inclining their approaches for VRA which likely to go up in future as with the linear equation i.e., Personality $=1.695 + 0.029*Year + \epsilon$. This equation confirmed by its F score 13.100 and sign. Value 0.007 (p < 0.05). It also, obtained R^2 value as 0.621 which indicating the variability of data through different respondents.

This study found that the household investors from Kumaun division is assessed their risk before going for the investment as it obtained $\chi^2=202.563$, p=0.000. On the other side, parameters estimates P1- Fixed return avenues (FRA) corporates low degree of risk than variable return avenues (VRA) and P4 P4- The risks and returns of the financial markets are not consistent with their defined objectives which implies that the perception of the investors in respect to VRA is affected by 0.543 and 1.441 respectively for each component changed for agreed or disagreed views for those who

believes more in VRA. On the other hand, the significant value of P2- Fixed return avenues (FRA) are designed for those who are not comfortable with share market and P3- Fixed return avenues (FRA) can provide satisfactory returns in the financial market is more than alpha (0.05) indicating that it does not fit for this model. The omnibus test statistics and perception model effect wald-statistics outcomes are 0.008 and 0.004 respectively which leads to reject the null hypothesis viz., The perception of the middle-class household's has no association with the investment pattern as it is less than the alpha value (0.05).

This study also found that the Kumaun division's household investors have changed their proportion of investment in the fixed and variable return avenues in the last decade. In the initial phase of the decade they were more interested in FRA while at the end of this decade they shows their willingness to invest in VRA.

This study can conclude that the household investors from Kumaun division are more aware about their risk and return profile. Consequently, they have increased the proportion of investment in the VRA. Also, the household investors perceived that VRA could provide better return with a given level of risk.

LIMITATION OF THE STUDY

This study modified the definition of middle-class investors based on different survey parameters, responses from the sample respondents, and to make the study more convenient. The definition and information is only relevant to this study. This study included 250 participants from the Kumaun division only. Therefore, the results may not apply to other parts of the country in the same way. For the purposes of this study, the last decade is considered, where biased information can be responded by the people. Furthermore, users are hesitant to share personal financial information, which could also lead to biased responses.

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