

# Savings and Investment Behaviour of Academicians After the Withdrawal of Income Tax Deductions

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## Abstract

This paper attempted to assess the tax-saving investment behavior of the academicians of Hisar district of Haryana after the withdrawal of tax deductions by using primary data. The primary data were collected from 337 respondents through a self-structured questionnaire and analyzed with Cronbach's alpha, analysis of variance, Welch test, and multiple mean comparisons test (post-hoc test). The study found an insignificant difference in savings and investment behavior of academicians with regard to their savings in banks/post office/and cooperative banks, five-year bank/post office fixed deposits, public provident fund, health insurance, life insurance, term life insurance, unit-linked insurance plan, national saving certificate, employees provident fund/general provident fund, mutual funds, real estate, gold exchange trade fund, stock market, recurring deposits, and systematic investment plan even after the withdrawal of tax deductions across the different income levels. The current study will be helpful for government authorities and policymakers to understand the investment behavior of individuals after the withdrawal of tax deductions.

**Keywords :** personal savings, individual investors, tax benefit, tax deduction, income tax

**JEL Classification Codes :** D14, H2, H24

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The word 'taxation' puts every person under pressure as it influences the investment returns, and therefore, tax planning and optimization play an important task in the investment process. We can reduce our taxable income legally (Karvy Private Wealth, 2019). In India, the government encourages an individual's savings by providing tax benefits under Sec 80C of Income Tax Act 1961 on various tax-saving instruments. Savings in such instruments are more beneficial for investors when considering the tax benefits available in these instruments. For example, PPF is an investment vehicle that comes under the exempt-exempt-exempt category. It means, as per the Income Tax Act, all deposits and accumulated interest are exempted from tax at the time of withdrawal. But for availing of these benefits and reducing tax liability, individuals need to possess some

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knowledge about personal taxation, deductions, exemptions, rebate, relief, etc., available in the Income Tax Act. After considering all these problems, the Indian Finance Minister, Nirmala Sitharaman, introduced a new tax rate slab for the taxpayers in Union Budget 2020. The existing income tax system provides various exemptions and deductions to the taxpayer. But compliance with this current system is a complicated and burdensome process for the taxpayer.

Further, the taxpayer cannot act by the existing income-tax law without taking assistance from an expert. The Indian Finance Minister proposed a new and simplified tax regime to provide noteworthy relief to the individual taxpayers and simplify the existing income tax law. In a simplified tax regime, individuals and HUF (Hindu undivided family) have the option to choose between old and new tax regimes (Table 1). But for taking the benefit of the new tax rate, the taxpayers will have to forgo some deductions and exemptions available under the old tax regime.

Some exemptions and deductions removed in the new tax regime include Chapter VI-A (Except Sec 80CCD (2) and 80JJA), leave travel allowance, conveyance allowance, house rent allowance, education loan interest, housing loan interest, standard deductions, medical insurance premium, savings bank interest, etc. The tax structure in the old and new tax rate slab can be understood with the help of an example. Suppose the gross salary of an individual taxpayer is INR 800,000. If he/she takes the benefit of deductions of INR 150,000 available under Sec 80C and standard deductions INR 50,000, then the calculation of tax payable will be as under in Table 2.

In the same way, if the gross income of an individual taxpayer is INR 1,200,000 and he/she avails the benefit of available deductions of INR 200,000, then the total tax payable amount will be INR 117,000 in old tax rate and INR 119,600 in the new tax rate regime. Therefore, the taxpayer will be in benefit under the old tax rate regime by

**Table 1. Tax Slab Rates Under Old and New Tax Regimes**

Annual Income	Existing Old Income Tax Rate	New Income Tax Rate (Simplified Tax Regime)
Up to 2.5 lakhs	Exempt	Exempt
2.5 lakhs – 5 lakhs	5%	5%
5 lakhs – 7.5 lakhs	20%	10%
7.5 lakhs – 10 lakhs	20%	15%
10 lakhs – 12.5 lakhs	30%	20%
12.5 lakhs – 15 lakhs	30%	25%
Above 15 lakhs	30%	30%

Source : <https://www.incometaxindia.gov.in/Pages/default.aspx>

**Table 2. Calculation in Old and New Tax Rate Slabs**

Old Tax Rate (2019–20)	New Tax Rate (2020–21)
(A) Gross income = INR 800,000	(A) Gross income = INR 800,000
(B) Deduction = INR 200,000	(B) Deduction = INR 0
(C) Taxable income (A–B) = INR 600,000	(C) Taxable income (A–B) = INR 800,000
(D) Tax as per old tax slab = INR 32,500	(D) Tax as per old tax slab = INR 45,000
(E) Education Cess (@ 4%) = INR 1,300	(E) Education Cess (@ 4%) = INR 1,800
(F) Total tax (D+E) = INR 33,800	(F) Total tax (D+E) = INR 46,800

INR 2,600. But if the gross salary of an individual is INR 1,500,000, then the individual taxpayer pays a total tax of INR 210,000 in the old tax rate slab and INR 195,000 in the new tax rate slab, and there will be a benefit of INR 15,600 under the new tax rate regime. Now, individual investors are free to choose the best tax regime and can discover new savings and investment instruments of their own choice without worrying about the tax-saving pressure. After this innovative tax reform, taxpayers' savings and investment behavior may change. Therefore, some studies must be conducted in this area because it is difficult to predict the behavior of investors regarding their savings and investments.

## **Review of Literature**

The previous studies on the association between tax structure and savings have received a lot of consideration from academicians, administrators, and policymakers for several reasons. First, developing economies require large tax revenue for the smooth and efficient running of the State (Neog & Gaur, 2020). Second, the extent of taxation rate channelizes or de-channelizes the individual savings and investment behavior. A high tax rate increases the chances of tax evasion, which affects the country's economic growth (Gupta, 2012). But in India, the government always promotes savings through tax rebates. That is the reason why most individual taxpayers invest in tax-saving instruments to fulfill their long-term financial goals (Gautam & Gautam, 2013). But the benefit of reducing tax liability can be availed if individuals are aware of tax deductions and exemptions. Some research evidence describes that tax influences an individual's savings behavior. For example, Arora and Rathi (2018) studied the awareness and preference regarding tax-saving options among salaried employees. After considering the tax benefits and associated risk and return factors, the study found that individuals invested in various investment options. The study also described that PPF was the most preferred investment avenue, while NPS and NSC were the least preferred avenues for investment. Shrotriya (2018) described that individuals start their savings during the early earning stage of life to achieve various objectives, including tax saving. Gupta (2012) tried to find the association between the proportion of investment with available tax rebates. The study reported that individuals make investments to get tax concession as the high tax burden adversely affects their investment ability. Mathivannan and Selvakumar (2011) studied the saving and investment pattern of school teachers in Tamil Nadu and found that bank deposits as well as insurance and government securities were the main avenues for their investment.

Similarly, Lokhande (2015) studied the awareness and preference of savings and investment avenues among rural investors in Maharashtra. The study found that most investors were unaware of the different investment avenues. The study disclosed that bank deposits were the most preferred avenue, followed by gold, jewelry, and real estate. Amaraveni and Archana (2017) also showed the investors' preference of investment avenues and found that insurance products were the most preferred avenue followed by bank deposits. Pallavi and Anuradha (2017) examined the tax planning and investment pattern of academicians. The study found that academicians saved up to 10% of their annual income and preferred to save their income in bank deposit, post office, public provident fund, and life insurance policies, etc. This represents a low level of awareness toward market-linked financial products. The study further showed that around 63% of the respondents saved in tax-saving schemes, and they preferred to consult agents for their tax planning.

Contrary to this, the study of Jordan and Treisch (2010) showed that there was no such influence of tax benefit on savings and investment behavior. They studied various factors and perceptions about tax concessions that influenced the individual's investment decision for retirement savings and found that individual's savings decision was not based on the rate of return and tax benefit. Further, some existing literature investigated the role of demographic characteristics of investors on investment behavior. For instance, Shaikh and Kalkundrikar (2011)

found that demographic factors like age, income level, marital status, gender, educational qualification, level of market knowledge, and the number of dependents affected the investor's behavior and investment decisions. Chakraborty and Digal (2015) identified the savings objectives of households in Odisha and the influence of these objectives on their annual savings levels. The study highlighted a significant difference in investment objectives on the basis of age, income level, occupation, and gender. Gautam and Matta (2016) studied the socio-demographic factors of investors' financial behavior. The study found that age, marital status, ownership of real estate, duration of investment, annual household income, and frequency of review of the portfolio are the most important factors that determine the financial behavior of individual investors.

## Research Problem and Objectives of the Study

After reviewing the available literature, it has been observed that individuals tend to invest in retirement planning instruments, provident funds, insurance products, and mutual funds schemes because all these instruments provide some tax benefits that make the investment returns quite significant. Further, it has been found that the demographic characteristics of the individual investors influence the savings and investment behavior of the individuals. However, some studies also found a lack of awareness about tax-saving instruments among individual investors. The finance ministry also reported that most of the individuals are not taking the benefits of all deductions. Therefore, on February 1, 2020, the Indian Finance Minister introduced a new simplified tax rate slab for the taxpayers. But the selection of this simplified tax regime comes with the cost of surrendering some exemptions and deductions available in the old tax regime. Investors' savings and investment behavior is expected to change after withdrawing the tax deductions and exemptions. But how much will it change? It is yet to be answered by various researchers. Therefore, an attempt has been made in this study to assess the savings and investment behavior of academicians after the withdrawal of the income tax deductions.

The proposed study has two objectives. These are:

- ✎ To assess the academicians' current savings and investment behavior.
- ✎ To assess the change in academicians' savings and investment behavior after the withdrawal of income tax deductions based on their demographic characteristics.

## Research Methodology

The present study is descriptive in nature based on the primary data set. The data were collected through a self-structured questionnaire from academicians working in different institutes of Hisar district of Haryana. The questionnaire contained nominal and interval scale questions, and it was also prepared in Google Forms to follow the COVID-19 social distancing guidelines. The target population or sample units included trained graduate teachers (TGTs), post-graduate teachers (PGTs), and university/college teachers. A total of 400 academicians were approached by convenience sampling technique, from which 354 questionnaires were received back. Finally, 337 completely filled questionnaires were used for further analysis. The period of the study was from August 2020 – January 2021. The demographic profile and present savings and investment avenues chosen by respondents were enquired through direct questions. The effect on the savings and investment behavior after the withdrawal of tax deductions was assessed by asking the question: How will you invest in the following savings and investment avenues if the tax deductions are permanently withdrawn by the Finance Minister? It was measured through a 5 - point Likert scale (*Never invest* = 1, *Almost never invest/Rarely invest* = 2, *Occasionally/Sometimes invest* = 3, *Almost every time invest* = 4, and *Frequently invest* = 5). Cronbach's alpha

value for 17 statements related to the savings and investment behavior after the withdrawal of tax deductions was found to be 0.844. The data were analyzed using statistical tools like descriptive analysis, one-way ANOVA, Welch test, and multiple mean comparison tests (post-hoc test) with the help of IBM SPSS software version 20.

To assess the effect of withdrawal of tax deductions on the savings and investment behavior of the academicians, the following hypotheses have been formulated:

↪  $H_{01}$  : There is no significant effect of the withdrawal of tax deductions on the savings and investment behavior of academicians on the basis of the occupation of the respondents.

↪  $H_{02}$  : There is no significant effect of the withdrawal of tax deductions on the savings and investment behavior of the academicians on the basis of the education of the respondents.

↪  $H_{03}$  : There is no significant effect of the withdrawal of tax deductions on the savings and investment behavior of the academicians on the basis of the income level of the respondents.

## Data Analysis and Results

The demographic profile describes the characteristics of the respondents (Amaraveni & Archana, 2017). Table 3 shows that out of 337 respondents, 24.6% were male and the rest of the 75.4% respondents were female employees. The sample comprised of 26.7% TGTs, 30.9% PGTs, and 42.4% university/college teachers. Based on the educational qualification of the respondents, 27% of the respondents were M.com./M.B.A./M.A. Eco, 29.4% respondents were M.Sc., 30.3% respondents were M.A., and the rest of 13.4% respondents were M.C.A./M. Tech. The majority of the respondents were married (78%). Out of the total respondents, 29.4% respondents belonged to the age group of 20–30 years, 21.1% to 41 – 50 years, and 13.9% of the respondents belonged to the age group of 51 – 60 years. The maximum number of employees in this study was in the age bracket of 31 – 40 years (35.6%). The finance ministry expected that at least 80% of the taxpayers would choose the new simplified tax regime, but this study shows that only 35.6% of the respondents will choose the new income tax regime (simplified tax regime); whereas, 64.4% of the respondents refused to adopt the new tax regime and they were satisfied with the old tax slab rates.

**Table 3. Demographic Profile of the Academicians**

Demographic Characteristics of Academicians	Parameters	Number of Representatives		Demographic Characteristics of Academicians	Parameters	Number of Representatives	
		Total (337)	(%)			Total (337)	(%)
Age	20 – 30 years	99	29.4	Annual Income	Below 5 L	115	34.1
	31 – 40 years	120	35.6	Range (in Lakhs)	5L – 7.5L	87	25.8
	41 – 50 years	71	21.1		7.5L – 10L	72	21.4
	51 – 60 years	47	13.9		10L – 12.5 L	27	8.0
Educational Qualifications	M.com./MBA/MA Eco.	91	27.0	Total Number of	12.5L – 15L	12	3.6
	M.Sc.	99	29.4	Experience	Above 15L	24	7.1
	M.A	102	30.3		Less than 5 years	110	32.6
	MCA/M.tech	45	13.4		5 - 10 years	78	23.1
Gender	Male	83	24.6		10 - 15 years	61	18.1

Marital Status	Female	254	75.4	Number of Children	15 – 20 years	31	9.2
	Married	263	78.0		More than 20 years	57	16.9
	Unmarried	74	22.0		Only boys	90	26.7
Occupation	TGT	110	32.6		Only girls	55	16.3
					Both girl and boy	107	31.8
	PGT	84	24.9		No child	85	25.2
University/College Teachers				Area	Urban	247	73.3
					Rural	66	19.6
					Semi-urban	24	7.1
				Would you choose a new income tax regime (Simplified Tax Regime) from 2020–2021?	Yes	120	35.6
					No	217	64.4

Table 4 displays that 77.2% of the respondents tended to save in bank/post office/cooperative bank account, 60.2% of the respondents preferred to invest in life insurance products, and 51.6% of the respondents deposited in PPF. Further, 36.8% of the respondents deposited in EPF/GPF, 34.4% in five-year bank/post office tax-saving fixed deposit, and 32.6% in health insurance. These results reflect that majority of the people preferred to save their money through bank deposits, which means people are risk-averse because they think returns from banks are risk-free. Another possible reason can be drawn that lower/middle-income families only save up to 1.5 lakhs to take the benefit of the tax regime. The remaining savings are deposited in bank savings and fixed deposits accounts to fulfill the emergency needs.

Investments in other avenues such as mutual funds (19%), term insurance (17.2%), real estate (17.2%), SSY

**Table 4. Current Savings and Investments by Academicians**

S. No.	Investment Avenues	Invested	
		Count	Table N %
1	Savings in Bank/Post Office/Cooperative Bank Account	260	77.2%
2	Five-Year Bank/Post Office Tax Saving Fixed Deposit	116	34.4%
3	Public Provident Fund (PPF)	174	51.6%
4	Health Insurance	110	32.6%
5	Life Insurance	203	60.2%
6	Term Life Insurance	58	17.2%
7	Unit Linked Insurance Plan (ULIP)	21	6.2%
8	National Saving Certificate (NSC)	42	12.5%
9	National Pension Scheme (NPS)	113	33.5%
10	Employee/General Provident Fund (EPF /GPF)	124	36.8%
11	Mutual Fund (Equity Linked Saving Scheme)	64	19.0%
12	Sukanya Samriddhi Yojana (SSY) Account	46	13.6%
13	Real Estate	58	17.2%



(13.6%), NSC (12.5%), and ULIP (6.2%) are found to be relatively low in comparison to the avenues as mentioned above. The reason for this includes lack of knowledge, fear of risk (Amaraveni & Archana, 2017), lack of awareness about taxation laws, and complexity related to their compliance (Gupta, 2012), etc.

Table 5 shows that most of the Levene values across occupation categories, except the savings in SSY account, real estate investment plan, and gold ETFs are greater than the 0.05 levels. This finding suggests that equal variance exists for the remaining avenues within the group of different occupation categories (TGTs, PGTs, university/college teachers), which hold the assumption of homogeneity. The results of ANOVA infer a statistically significant difference between the mean values of different categories of occupation. It includes PPF [ $F(2, 334) = 4.991, p = .007$ ], life insurance [ $F(2, 334) = 5.587, p = .004$ ], term life insurance [ $F(2, 334) = 3.357, p = .036$ ], SSY account [Welch's  $F(2, 208.697) = 5.211, p = .006$ ], real estate investment trust [Welch's  $F(2, 199.694) = 8.178, p = .000$ ]. Hence, H1 is rejected. There is a statistically insignificant difference among the respondents across their occupation categories for the rest of the schemes.

**Table 5. Results of One-Way ANOVA and Welch Test Across Occupations**

Avenues	Mean of Occupation			Levene Test	One-Way ANOVA		Welch		Null
	TGT N = 110	PGT N = 84	University/ College Teachers N = 143	Sig .	F-Statistics	Sig.	Statistics	Sig.	Hypothesis
Savings in Bank/Post Office/ Cooperative Bank Account	3.40	3.21	3.49	.700	1.256	.286	–	–	Accepted
5 - Year Bank/ Post Office Tax Saving FD	2.86	2.94	2.94	.563	.113	.893	–	–	Accepted
Public Provident Fund (PPF)	2.85	2.92	3.36	.181	4.991	<b>.007*</b>	–	–	Rejected
Health Insurance	2.94	2.68	2.92	.536	1.104	.333	–	–	Accepted
Life Insurance	3.20	2.68	3.28	.517	5.587	<b>.004*</b>	–	–	Rejected
Term Life Insurance	2.19	2.25	2.59	.447	3.357	<b>.036*</b>	–	–	Rejected
Unit Linked Insurance Plan (ULIP)	1.84	2.10	2.01	.922	1.243	.290	–	–	Accepted
National Saving Certificate (NSC)	2.02	2.11	1.93	.136	.617	.540	–	–	Accepted
National Pension Scheme (NPS)	2.29	2.32	2.62	.480	1.798	.167	–	–	Accepted
Employee/General Provident Fund (EPF/GPF)	2.76	2.86	2.77	.835	.111	.895	–	–	Accepted
Mutual Fund (Equity Linked Saving Scheme)	2.20	2.58	2.41	.351	1.771	.172	–	–	Accepted

Sukanya Samriddhi Yojana Account (SSY)	1.90	2.00	2.44	.000**	–	–	5.211	.006*	Rejected
Real Estate Investment Trust	1.85	2.32	2.52	.018**	–	–	8.178	.000*	Rejected
Gold ETF	1.95	2.29	1.99	.022**	–	–	1.531	.219	Accepted
Stock Market	1.82	2.04	2.03	.739	.964	.383	–	–	Accepted
Recurring Deposit (RD)	2.66	2.48	2.62	.891	.490	.613	–	–	Accepted
Systematic Investment Plan (SIP)	2.20	2.27	2.29	.149	.128	.880	–	–	Accepted

**Note.** \*\* indicates  $p < 0.05$ , no homogeneity in group variance, and \* indicates  $p < 0.05$ , the mean difference is significant at the 0.05 level.

Table 6 describes the Tukey post hoc test results, where the mean value of PGTs is significantly different from TGTs and university/college teachers corresponding to life insurance. It shows that TGTs and university/college teachers preferred life insurance than PGTs. In the case of PPF and term life insurance, the mean score of TGTs is significantly different from university/college teachers. It shows that university/college teachers preferred to invest their savings in PPF and term life insurance compared to the TGTs.

Post hoc comparison using the Games – Howell test (Table 7) indicates that the mean score of SSY account in the occupation category of university/college teachers is significantly different from all-other occupation categories, that is, TGT and PGT. It shows that TGT and PGT teachers preferred less to save in SSY account than the university/college teachers. Also, with respect to real estate investment trust, the mean score of TGTs is significantly less than the mean score of PGTs and university/college teachers. It reflects that PGTs and university/college teachers preferred investing in real estate investment trusts.

**Table 6. Tukey's Post Hoc Results**

Savings and Investment Avenues	Occupation of Respondents (I)	Occupation of Respondents (J)	Mean Difference (I–J)	Std. Error	Sig.
Public Provident Fund (PPF)	TGT	University/College Teachers	–.511*	.176	.011
Life Insurance	PGT	TGT	–.521*	.197	.023
		University/College Teachers	–.601*	.187	.004
Term Life Insurance	TGT	University/College Teachers	–.403*	.169	.046

**Note.** \*The mean difference is significant at the 0.05 level.

**Table 7. Games – Howell Post Hoc Results**

Savings and Investment Avenues	Occupation of Respondents (I)	Occupation of Respondents (J)	Mean Difference (I–J)	Std. Error	Sig.
Sukanya Samriddhi	University/College Teachers	TGT	.541*	.175	.006
Yojana (SSY) Account		PGT	.441*	.189	.053
Real Estate Investment Trust	TGT	PGT	–.476*	.200	.046
		University/College Teachers	–.672*	.175	.000

**Note.** \*The mean difference is significant at the 0.05 level.



Table 8 shows that the assumption of homogeneity of variance is not fulfilled in case of NPS, real estate investment trust, gold ETF, and stock market. The results of ANOVA reveal that there is a statistically significant difference between the mean values of different categories of education qualifications. It includes term life insurance [ $F(3, 333) = 3.583, p = .014$ ], NPS [Welch  $F(3, 150.043) = 5.275, p = .002$ ], stock market [Welch  $F(3, 150.647) = 7.213, p = .000$ ], RD [ $F(3, 333) = 3.993, p = .008$ ], and SIP [ $F(3, 333) = 4.241, p = .006$ ]. Hence, H2 is rejected. For the rest of the schemes, there is a statistically insignificant difference among different respondents across their educational levels.

**Table 8. Results of One-Way ANOVA and Welch Test Across Educational Qualifications**

Avenues	Mean of Educational Qualifications				Levene Test	One-Way ANOVA		Welch		Null Hypothesis
	M.com/ M.B.A/M.A Eco. N = 91	M.Sc N = 99	M.A N = 102	MCA/ M.Tech. N = 45	Sig.	F-Statistics	Sig.	Statistics	Sig.	
Savings in Bank/Post Office/ Cooperative Bank Account	3.59	3.35	3.30	3.27	.133	1.111	.345	–	–	Accepted
5 - Year Bank/ Post Office Tax Saving FD	3.23	2.83	2.78	2.76	.308	2.351	.072	–	–	Accepted
Public Provident Fund (PPF)	3.26	3.14	2.89	3.00	.068	1.242	.295	–	–	Accepted
Health Insurance	3.11	2.82	2.62	3.04	.529	2.516	.058	–	–	Accepted
Life Insurance	3.36	3.07	2.84	3.24	.069	2.498	.060	–	–	Accepted
Term Life Insurance	2.73	2.31	2.11	2.42	.402	3.583	.014*	–	–	Rejected
Unit Linked Insurance Plan (ULIP)	2.16	1.86	1.87	2.09	.518	1.471	.222	–	–	Accepted
National Saving Certificate (NSC)	2.16	1.99	1.89	1.96	.801	.912	.436	–	–	Accepted
National Pension Scheme (NPS)	2.78	2.65	2.02	2.24	.039**	5.089	.002	5.275	.002*	Rejected
Employee/General Provident Fund (EPF/GPF)	2.73	2.64	3.02	2.73	.069	1.188	.314	–	–	Accepted
Mutual Fund (Equity Linked Saving Scheme)	2.67	2.28	2.21	2.44	.622	1.961	.120	–	–	Accepted
Sukanya Samriddhi Yojana Account (SSY)	2.21	2.39	1.95	1.98	.145	2.000	.114	–	–	Accepted
Real Estate Investment Trust	2.29	2.04	2.22	2.71	.014**	–	–	2.187	.092	Accepted
Gold ETF	2.22	1.90	2.03	2.11	.028**	–	–	.934	.426	Accepted

Stock Market	2.49	1.68	1.73	2.04	.003**	–	–	7.213	.000*	Rejected
Recurring Deposit (RD)	2.99	2.39	2.42	2.67	.472	3.993	.008*	–	–	Rejected
Systematic Investment Plan (SIP)	2.62	2.18	1.93	2.42	.065	4.241	.006*	–	–	Rejected

**Note.** \*\* indicates  $p < 0.05$ , no homogeneity in group variance, and \* indicates  $p < 0.05$ , the mean difference is significant at the 0.05 level.

In the case of term life insurance and SIP, Tukey post-hoc test (Table 9) shows that the mean score of respondents with M.Com./M.B.A./M.A. Eco qualification is significantly different from the mean score of respondents with M.A. qualification. In the case of RD, the mean score of academicians with M.Com./M.B.A./M.A. Eco qualification is significantly different from the mean score of respondents of M.Sc. and M.A. qualifications. It means that academicians with the educational qualifications M.Com./M.B.A./M.A. Eco gave more preference to invest their savings in term life insurance, RD, and SIP in comparison to others.

In Table 10, the post-hoc comparison using the Games – Howell test shows that the mean score of respondents of M.A. qualification is significantly different from the mean score of respondents of both M.Com./M.B.A. /M.A. Eco and M.Sc. with regards to NPS. It means that the academicians with education qualifications M.Com./M.B.A./M.A. Eco and M.Sc. gave more preference to NPS investments in comparison to others after the withdrawal of tax deductions. Also, in the case of the stock market, the mean score of respondents of M.Com./M.B.A. /M.A. Eco qualification is significantly different from the mean score of respondents of both M.Sc. and M.A. education qualifications. It means that academicians with educational qualifications of M.Com./M.B.A./M.A. Eco gave more preference to stock market investments after the withdrawal of tax deductions.

**Table 9. Tukey Post Hoc Results**

Savings and Investment Avenues	Educational Qualifications of Respondents (I)	Educational Qualifications of Respondents (J)	Mean Difference (I–J)	Std. Error	Sig.
Term Life Insurance	M.Com/M.B.A. /M.A. Eco	M.A.	.617*	.191	.007
Recurring Deposit (RD)	M.Com/M.B.A. /M.A. Eco	M.Sc.	.595*	.194	.013
		M.A.	.567*	.193	.018
Systematic Investment Plan (SIP)	M.Com/M.B.A. /M.A. Eco	M.A.	.684*	.199	.004

**Note.** \*The mean difference is significant at the 0.05 level.

**Table 10. Games – Howell Post Hoc Results**

Savings and Investment Avenues	Educational Qualifications of Respondents (I)	Educational Qualifications of Respondents (J)	Mean Difference (I–J)	Std. Error	Sig.
National Pension Scheme (NPS)	M.A.	M.Com/M.B.A. /M.A. Eco	–.761*	.216	.003
		M.Sc.	–.627*	.204	.013
Stock Market	M.Com/M.B.A. /M.A. Eco	M.Sc.	.818*	.186	.000
		M.A.	.769*	.184	.000

**Note.** \* The mean difference is significant at the 0.05 level.

Table 11 shows that the assumption of homogeneity of variance is not fulfilled in the case of term life insurance and NPS and SSY accounts. Further, the results reveal that mean values across annual income levels are statistically significantly different with regards to NPS [Welch  $F(5, 68.874) = 2.654, p = .030$ ] and SSY account [Welch's  $F(5, 69.384) = 3.984, p = .003$ ] if the tax deductions are withdrawn. Hence, H3 is rejected. For the rest of the schemes, there is a statistically insignificant difference among different respondents across their annual income levels.

**Table 11. Results of One-Way ANOVA and Welch Test Across Annual Income**

Avenues	Mean of Annual Income						Levene	One-Way ANOVA		Welch	Null	
	Below 5L	5L-7.5L	7.5L-10L	10L-12.5L	12.5L-15L	Above 15L	Test	F-Statistics	Sig.	Statistics	Sig.	Hypothesis
	N = 115	N = 87	N = 72	N = 27	N = 12	N = 24						
Savings in Bank/Post Office/ Cooperative Bank Account	3.53	3.59	3.08	3.26	3.33	3.13	.764	1.842	.104	–	–	Accepted
5 - Year Bank/ Post Office Tax Saving FD	3.12	3.02	2.65	3.00	2.42	2.46	.073	2.126	.062	–	–	Accepted
Public Provident Fund (PPF)	2.96	3.34	3.08	3.00	2.75	2.96	.122	.982	.429	–	–	Accepted
Health Insurance	2.75	3.07	2.96	2.78	2.50	2.71	.118	.915	.472	–	–	Accepted
Life Insurance	2.96	3.26	3.31	2.96	2.67	3.00	.668	1.136	.341	–	–	Accepted
Term Life Insurance	2.26	2.41	2.60	2.56	2.00	2.13	.004**	–	–	1.059	.391	Accepted
Unit Linked Insurance Plan (ULIP)	1.96	1.99	1.99	2.15	2.08	1.75	.985	.309	.907	–	–	Accepted
National Saving Certificate (NSC)	2.07	2.07	1.79	2.30	2.17	1.67	.401	1.387	.228	–	–	Accepted
National Pension Scheme (NPS)	2.46	2.57	2.56	2.56	1.92	1.63	.019**	–	–	2.654	.030*	Rejected
Employee/ General Provident Fund (EPF/GPF)	2.69	2.84	2.53	3.15	3.17	3.29	.821	1.531	.180	–	–	Accepted
Mutual Fund (Equity Linked Saving Scheme)	2.55	2.22	2.31	2.59	2.58	2.13	.408	.900	.481	–	–	Accepted
Sukanya Samriddhi Yojana Account (SSY)	2.27	2.18	2.14	2.22	2.33	1.38	.001**	–	–	3.984	.003*	Rejected

Real Estate Investment Trust	2.08	2.16	2.29	2.52	2.50	2.83	.753	1.540	.177	–	–	Accepted
Gold ETF	2.11	2.01	2.13	1.89	1.67	2.08	.341	.384	.860	–	–	Accepted
Stock Market	2.04	1.86	2.07	1.89	1.83	1.75	.245	.443	.818	–	–	Accepted
Recurring Deposit (RD)	2.62	2.68	2.64	2.30	2.42	2.54	.127	.394	.853	–	–	Accepted
Systematic Investment Plan (SIP)	2.23	2.37	2.38	2.04	2.08	1.96	.814	.606	.695	–	–	Accepted

**Note.** \*\* indicate  $p < 0.05$ , no homogeneity in group variance, and \* indicate  $p < 0.05$ , the mean difference is significant at the 0.05 level.

**Table 12. Games – Howell Post Hoc Results**

Savings and Investment Avenues	Income Level of Respondents (I)	Income Level of Respondents (J)	Mean Difference (I–J)	Std. Error	Sig.
NPS	Above 15 L	5L – 7.5L	–.950*	.298	.029
		7.5L – 10L	–.931*	.306	.041
Sukanya Samriddhi	Above 15 L	Below 5 L	–.895*	.215	.001
Yojana Account (SSY)		5L – 7.5L	–.809*	.229	.009
		7.5L – 10L	–.764*	.232	.019

**Note.** \*The mean difference is significant at the 0.05 level.

Table 12 indicates that the mean score of respondents with income level above 15 lakhs in NPS is significantly different from the respondents with income levels: 5 lakhs – 7.5 lakhs and 7.5 lakhs – 10 lakhs. It reflects that academicians with annual income between 5 lakhs – 10 lakhs would like to invest their savings in NPS in comparison to the above-mentioned income categories. Similarly, in SSY, the mean score of the annual income category above 15 lakhs is significantly less from annual income categories of below 5 lakhs, 5 lakhs – 7.5 lakhs, and 7.5 lakhs – 10 lakhs. It reflects that academicians with annual income less than or equal to 10 lakhs preferred to deposit more in the SSY account even after the withdrawal of deductions.

## Conclusion

Given the continuous changes in the country's taxation system, the need to better understand the tax planning of individuals is essential for the proper implementation of a new tax policy. When compared based on demographic variables, it is found that the savings and investment behavior after the withdrawal of the tax deductions differed across occupation, educational qualifications, and annual income categories. The study finds that occupation plays an important role in deciding academicians' savings and investment behavior regarding PPF, life insurance, term life insurance, SSY, and real estate investment trust. In addition to this, academicians with education qualifications M.Com./M.B.A./M.A. Eco were more willing to invest their savings in term life insurance, RD, SIP, NPS, and the stock market in comparison to others. Further, it is meaningful to state that there will be no significant effect on the savings and investment behavior with regard to all avenues except NPS and SSY even after the withdrawal of tax deductions across the different income levels of the respondents.

## **Policy Implications**

This research provides some directions to the government authorities and policymakers to understand the investment behavior of individuals after the withdrawal of tax deductions. The finance ministry expected that at least 80% of the taxpayers would choose a new tax regime, but this study shows that only 35.6% of the respondents chose the new tax regime. The probable reason for this low adoption rate includes the absence of clear-cut guidelines regarding shifting from the old to the new tax regime and vice-versa. Second, the respondents wanted to benefit from the old tax regime in the coming years. Therefore, there is a need to make separate tax policies for different income groups according to their needs. This change discourages the misselling of some investment instruments that happen in the name of tax saving, such as insurance schemes. But on the other hand, this also demotivates the taxpayers for investing in long-term tax-saving investments such as PPF and ELSS.

## **Limitations of the Study and Scope for Further Research**

Given this scope, this research has some limitations. The results are possibly biased due to the low survey response rate. The reasons for this are first, some respondents refused to fill the questionnaire by saying that they were busy and they did not want to disclose their personal information regarding their investments; second, due to the COVID-19 pandemic, some respondents were contacted through email, but they did not send their responses in time; and third, the study is confined to the respondents of Hisar district of Haryana. The other limitation is an inconsistent appropriation of respondents across subgroups of their demographic profile. In addition, this study is restricted to only three demographic factors: occupation, educational qualification, and annual income level. Therefore, similar studies can be conducted in other parts of the country by taking a bigger sample of diverse population groups.

## **Authors' Contribution**

Dr. Khujan Singh conceived the idea to study academicians' saving and investment behavior after the withdrawal of tax deductions. He helped to develop the questionnaire for this study. Miss Aarti and Mrs. Jyoti reviewed the available literature and collected the data from the respondents. The manuscript was written after consultation with Dr. Khujan Singh.

## **Conflict of Interest**

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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