

Financial Literacy and Adoption of Personal Retirement Plan among Public Employees in Addis Ababa City Administration, Adbaru Tesfaye¹

Abstract

Individual financial status is underscored despite the fact that only a few households feel confident about adequate saving for retirement because of a lack of awareness about planning for retirement. Households having the same type of socio-economic background exhibit different saving habits and they may have different wealth. For one to save wisely and properly, acquiring financial knowledge is important. And the critical question must be whether there is a relationship between financial literacy and the adoption of a personal retirement plan. This paper examined the effects of financial literacy on the adoption of personal retirement plans among public employees in the Addis Ababa City Administration, using a descriptive design. Multistage sampling was used to select a representative sample of 386 respondents from three public bureaus named health, education, and revenue bureaus. The data were collected using a questionnaire & key informant interview and the quantitative data was analyzed using descriptive & inferential statistics of mean, standard deviation & regression analysis respectively to examine the relationship between dependent & independent variables. The study revealed that financial literacy is positively related to the adoption of a personal retirement plan. In addition, most of the elements of knowledge of financial instruments and computational capability of retirement benefits are significantly related to the adoption of a personal retirement plan. The study also found that (age, sex, education level & income level) are significantly related to the adoption of a personal retirement plan. Lastly, the financial factors (adequate monthly income & expenditure management) as moderating variables are also positively related to the adoption of a personal retirement plan.

Keywords: financial literacy, retirement planning, financial factors, demographic factors

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Introduction

Money related status or readiness is the most significant thing to control future monetary necessities. Henirette and Arthur (2016) clarified that having a genuine current monetary arranging and taking activities is useful for future retirement way of life. They likewise unequivocally noticed that, more often than not retirees' way of life is upset due to decay of salary and disfigurement of retirement riches and resources. Numerous retirees live unfortunate live because of the decrease of pay and incapable to spare and plan ahead of time for their future retirement way of life.

The monetary economies of developing nations are delicate and unusual which makes money related information a matter of accommodation as well as a fundamental endurance apparatus. There are worries in the developing nations that money related purchasers come up short on working information on monetary ideas and don't have the instruments they have to settle on sound budgetary choices generally worthwhile to their financial prosperity. Such budgetary education inadequacies sway on a family's everyday cash the executives and capacity to put something aside for long haul objectives like financing retirement and subsequently, lead to propensities that make

families vulnerable to harsh monetary crises (Lusardi and Mitchell, 2013).

There is a restricted comprehension of money in Ethiopia. Without a comprehension of essential money related ideas, accessibility of credit, and new vehicles of the venture may demolish a few. Borrowers who default on their obligation might be compelled to sell resources that they keep dear to square away advances. This has been valid in Sub-Saharan Africa where micro-finance has blasted. This has additionally created badly willed banks offering simple admittance to credit to the burden of low-pay customer's budgetary prosperity. This is prompting customer over-obligation in numerous African nations. Budgetary proficiency is basic on the off chance that we are to maintain a strategic distance from this test later on. Budgetary education is the ownership of aptitudes that permits individuals to make savvy choices with their cash. This is the capacity to see how cash functions, measure money related data, and settle on educated choices. Budgetary arranging, riches collection, obligation, and retirement

reserve funds are basic issues tended to in monetary proficiency (Haben, 2019).

Individuals who have a lower level of budgetary education will in general get more and gather fewer riches. They are more averse to contribute and bound to encounter trouble with an obligation. Exploration about Ethiopian family units demonstrated despite the fact that they earned less sensible pay, they are not monetarily wealthy. The expense of budgetary illiteracy is high, driving numerous individuals to acquire avoidable charges. Many credit clients don't completely comprehend the idea of self-multiplying dividends and how it can blow up the aggregate sums owed to the money related organizations (Haben, 2019).

In Addis Ababa City Administration, the previously mentioned cases are additionally introduced and broadly found as absence of monetary proficiency and reserve funds for retirement are basic issues which lead to individuals unfit to set themselves up in the midst of dependable retirement of government open representatives. The lack of budgetary proficiency has impact on family's everyday lives and capacity to put something aside for long haul objectives like financing for retirement and making retirement life smooth and reasonable. Monetary proficiency gives off an impression of being decidedly identified with retirement arranging; inside the feeling of contemplating the money related assets required for retirement. The additionally intriguing inquiry is whether this affiliation mirrors a causal connection from money related proficiency to retirement arranging. Some current examinations likewise show those people who accomplish greater retirement arranging will in general aggregate more annuity riches, yet the conduct financial aspects writing exhibits that this connection is a lot more fragile. Goals are a helpless indicator of real conduct, particularly inside the space of retirement planning (Remund, 2010).

Financial literacy also encompasses a positive effect on other styles of actual behavior that may improve retirement resources, like investing within the stock exchange, not borrowing against or pension accounts, avoiding personal credit lines, or investing in on-the-job training. If financial literacy can help people make better pension-related decisions, the subsequent question is a way to improve financial literacy. The research on the effectiveness of interventions

aimed towards improving financial knowledge has not yet reached consensus. Initiatives to introduce mandatory financial education is criticized, since this could come at the value of other subjects, is pricey and therefore, the ultimate improvements in financial outcomes could also be very limited. A meta-study of over 200 articles even suggests that interventions geared toward improving financial literacy have hardly led to any improvement in financial decisions (Lusardi & Mitchell, 2013). The way that putting resources into money related proficiency might be a decision will, subsequently, cause an ascent in riches imbalance, regardless of whether inclinations and consequently, the expense of turning out to be monetarily educated don't shift with pay. In addition, offering monetary instructing projects to bring down pay bunches is successful if these gatherings have to lack the motivating force to keep up their insight and that they permit their money related abilities to disintegrate after the underlying venture inside the training program (OECD, 2005).

Money related education remembers a beneficial outcome for contribution with benefits and subsequently, the nature of retirement and annuity related choices. The money related training may assist with upgrading monetary proficiency and in this way to support annuity choices. This is frequently not direct, notwithstanding, and will be a stylish approach with a dubious result. The money related training programs are, consistently viable - this depends upon substance, timing, and thus, the objective gathering's motivating forces to deal with or rely upon the underlying speculation. Improving budgetary education and annuity information is by no means enough to guarantee ideal benefits higher psychological procedures. To start with, guidelines ought to forestall clearly helpless decision (Henirette & Arthur, 2016).

As indicated by ILO (2011), pensionable workers are perpetual representatives which are qualified for various annuity benefits. The privilege of this workers is a lot of authoritative and permanency is so essential one to be qualified for retirement benefits. The conventional commitment in open association as a representative is coming about privilege and this qualification is the type of annuity advantage or retirement advantage. An annuity advantage or retirement advantage is one type of social protection. It is a course of action to furnish

a part with salary when he/she resigns from beneficial work. The benefits to be gotten can be a fixed sum contingent upon the measure of commitments and the time span that those commitments have been paid.

The essentialness of annuity advantage is so basic to workers after their retirement. It is a type of protection for workers at their period of retirement. Annuity advantage fills in as wellsprings of pay and retirees at mature age will be abandoned financially and mentally. Also, there are various reasons why workers retiree. For instance, Rowe (1994) recognizes the accompanying as reasons why individuals resign from work; a few people resign in light of the fact that they have collected enough riches hid away in investment funds which can be depended on during retirement; others resign because of crumbling in well-being which is for the most part connected with mature age; a few people additionally resign because of sudden end of business contracts for the most part because of mergers, cutting back or privatization; some likewise go on retirement intentionally for recreation which is generally in the propelled nations, while others do as such to provide food for their families. At last, a few people go on retirement because old enough, particularly when they fit the official retirement age.

As individuals approach retirement, the subject of whether they are monetarily arranged gets head of psyche. Questions in regards to money related adequacy are likewise raised by a few patterns, similar to bosses moving expelled from offering customary characterized advantage annuity plan, and certain administration annuity benefits being diminished and deferred. These patterns will serve to move the obligation to people to spare bunches for their retirement. Moreover, some ought to be attempting to remake retirement finances drained by the budgetary emergency (BMO Wealth Institute, 2011).

The fundamental motivation behind retirement arrangement projects will empower a specialist to shape a reasonable impression of resigned life and decrease tension about retirement. At the end of the day, it targets upgrading imminent retirees' adjustment to retirement and gracefully help with dealing with this new presents life, (Oyuke, 2009). Modigliani and Brumberg (1980) made sense of a hypothesis of paying upheld the idea that people settle on savvy decisions about what extent they require

spending at each age, constrained uniquely by the assets accessible over their lives. By building, and running down resources, working individuals can make arrangement for their retirement, and all the more by and large, tailor their utilization examples to their necessities at various ages, autonomously of their earnings at each age.

Businesses will in any case assume a huge job in helping laborers then again retirement by offering retirement designs along with instruction, and arranging devices and retirement pay alternatives. Also, with various specialists going to work longer, managers can offer chances to help more seasoned laborers to expand their working year and their change into retirement. Nonetheless, to help a specialist to sufficiently prepare oneself for retirement, the individual may be amped up for the possibilities of resigning to get persuaded enough to chase data and guidance, and in the end to expect activity to sort out for retirement. Something else, it's feasible for the very certainty that retirement might be a reality in a laborer's life to soak in when it's extremely late inside the person's working life, go to that is shockingly supposed to be clear with numerous representatives who resign from long stretches of administration, and still battle with fundamental needs of life (OECD,2005).

Taking the facts on the table, it is assumed that working people are not substantially preparing for retirement. Studies indicated that the shortcomings of retirement preparedness risks the life of working people due to direct influence of employment and the disadvantages of working peoples and their lack of financial strength. This is happening due to the pension plan and its availability or access an employee sponsored for adaptive saving to help their future retirement life. Hariette et.al (2016) noted that individual cannot forecast their income after retirement and they do not know how they could improve their standard of living after retirement. Due to these reason working people do not adequately save and accumulate wealth for retirement. They also investigated that individual don't want to make optimal decisions related to living standard after retirement, because they may not have financial knowledge on financial preparedness for retirement in their country.

Robert et al. (2015) found out that income, marital status, educational background, tenure and financial knowledge and instrument are all positive relationship with

financial preparedness for retirement. In addition to this, they have greatly emphasized that income or salary highly affects retirement preparation. They also suggest that individual workers who have gained financial knowledge could have a better understanding of investment risks and

purpose of this study was to investigate the contradictions that arise among different empirical researches. Finally, this paper wants to answer the question: Does financial literacy as moderated by demographic characteristics and financial factors determine adoption of retirement plan

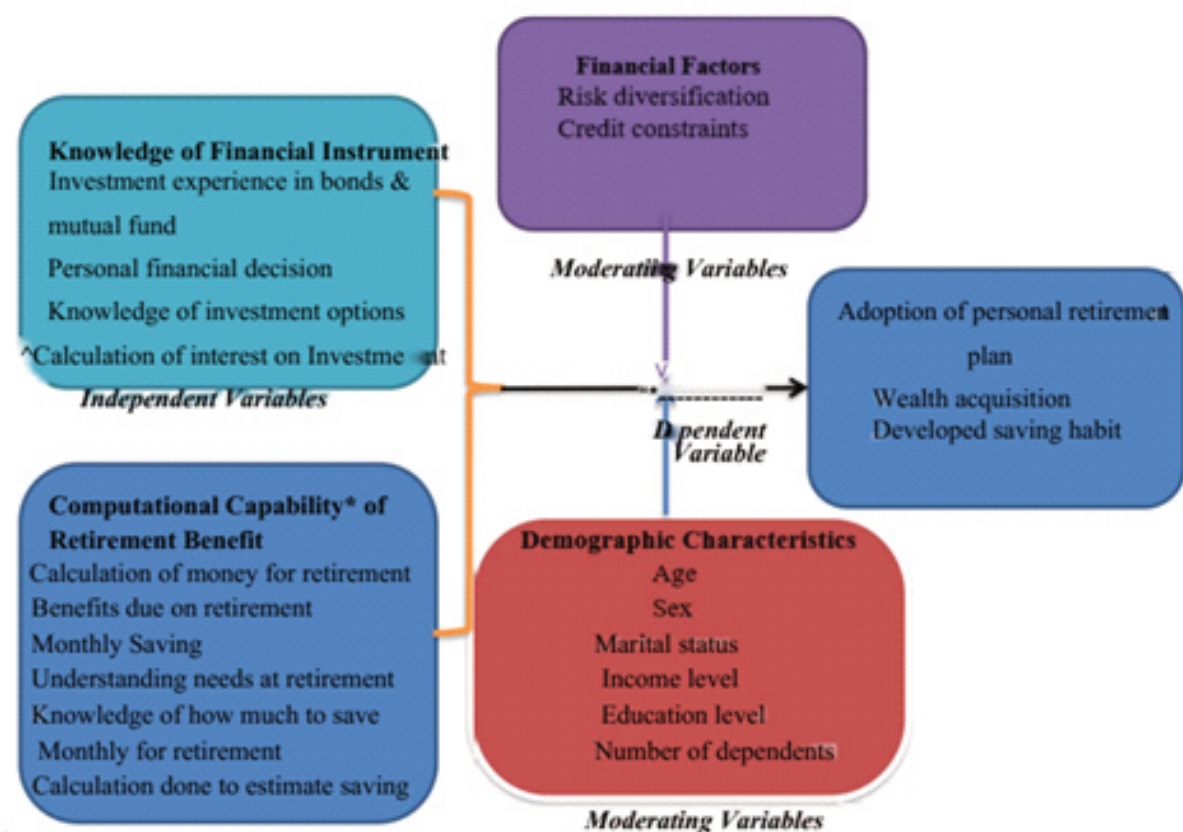


Fig.1: Adopted with some modification: Source: (Maurine Agunga, 2018)

returns. More financially knowledgeable working individuals are also much more likely to participate in their retirement saving plan, save more of their incomes and hold more equity in their retirement accounts.

Different recent empirical studies reveal that financial factors and demographic variables have and have not significant effect on financial preparedness for retirement. For example, Agunga (2018) argues that income and household dependents have nothing to do with financial preparedness for retirement. On the other hand, Lusardi & Mitchell (2012) found that financial factors and demographic variables have significant effect on financial preparedness for retirement. The infused relationship between demographic variables as moderating and financial preparedness for retirement in many studies leads to contradictions. Therefore, the

among public service employees in Addis Ababa City Administration? In this paper, the researcher assessed different theoretical and empirical studies to grasp central and vital interest of the study. Thus, the following research questions were drawn in this study:

1. What is the effect of financial knowledge (instruments) and computation capability of retirement benefit on adopting personal retirement plan among public service employees in Addis Ababa city Administration?
2. How financial factors as moderating variables have effect on adopting personal retirement plan among public service employees in Addis Ababa city Administration?
3. What is the effect of demographic characteristics as moderating variables on adopting personal retirement plan

among public service employees in Addis Ababa city Administration?

Conceptual Framework

The figure depicts the knowledge of financial instruments and computation capability of retirement benefits and its effect on adopting personal retirement plan with demographic and financial factors as moderating variables. The purpose of this research was to know whether adoption of personal retirement plan is affected by financial literacy in the form of knowledge of financial instruments and computational capability of retirement benefit or not. The conceptual framework of this paper indicated that financial literacy in the form of knowledge of financial instruments & computational capabilities of retirement income with demographic & financial factors as moderating variables were greatly explain that adoption of personal retirement plan could be sought where these knowledge of finance & computational capabilities of retirement benefit are mastered and developed by public servants in their working life time.

Study Design & Methodology

Research Design

This research used both qualitative and quantitative approach. As stated by Saunders (2009) mixed method approach in both qualitative and quantitative data collection and analysis methods are used. It is more than simply collecting and analyzing both kinds of data rather the use of both approaches has greater strength in the overall study than either qualitative or quantitative research. Hence, this study utilized both qualitative and quantitative approach so as to get more reliable and valid results on practices and challenges of pension scheme. Among the many mixed method research design, the researcher applied concurrent triangulation mixed design. According to Creswell (2003), this method is a concurrent mixed design where the quantitative data as well as the qualitative data is supposed to be collected and analyzed separately and triangulated the findings simultaneously.

Target Population & Sampling

The population of the study is comprised all the public bureaus which reside in Addis Ababa city Administration. In November

2020, there were 21 public bureaus with a total workforce of 115,397 public employees in Addis Ababa (Public Servant Social Security Agency, 2020). The researcher adopted sample size determination technique and below stated the statistical formula for determining the sample size of the study.

$$n = \frac{N}{1 + N(e)^2}$$

$$1 + N(e)^2$$

Where N is the total, e is the error or confidence level. The conventional confidence level of 95% confidence interval used to ensure a more accurate result from the sample. Based on this, the error term is equal to 0.05. Using the total population 115,397 with an error term of 0.05, the sample sizes were calculated as follows. Purposive Sampling technique was applied to determine the number of sample public bureaus & three bureaus were identified. This bureau were health, education, and tax revenue bureau. Three hundred ninety-nine respondents were selected using simple random sampling from the above-mentioned public bureaus in Addis Ababa City Administration.

Data Collection & Analysis

Survey questionnaires were used to collect primary data in the Addis Ababa city administration from selected public employees. The questionnaires were tested preliminary to conform the validity of the data, while reliability was ensured by Cronbach's alpha coefficient, which showed the internal consistency of the instruments with alpha coefficients higher than 0.7, which implies reliability (Cronbach, 2004)

Table 1 Reliability Statistics

Variable	No. of Items	Alpha	Comment
Demographic Characteristics	3	0.712	Reliable
Knowledge of Financial Instrument	5	0.816	Reliable
Computational Capabilities of Retirement Benefits	5	0.823	Reliable
Financial Factors	4	0.866	Reliable
Adopting of Personal Retirement Plan	14	0.806	Reliable
Overall	31	0.804	Reliable

Source: Survey Data (2021)

Knowledge of Financial Instrument

The respondents were asked in a five-point Likert scale questions to determine their knowledge of financial instruments. The effect of knowledge on their financial instruments was analyzed using descriptive statistics where the analyzed results

discussed in the following Table 2

A mean response of less than 1 implies not at all, 1.1 to 2 implies to a less extent, 2.1 to 3 implies moderate extent, 3.1 to 4 implies a large extent and 4.1 to 5 implies very large extent. As it can be seen from table 4.4.1 the respondents have had moderate investment experience in bonds & mutual funds (mean of 2.55), a moderate extent on knowledge about investment (mean of 2.19), a moderate extent on investment in shares (mean of 2.10), less extent on financial knowledge usage to make financial decisions (mean of 1.95) and a less extent on calculation of interest on investment (mean of 1.83). Generally, knowledge of financial instrument is known and understood by responds in a level of moderate extent (mean of 2.12, standard deviation of 0.997).

Knowledge of Financial Instrument	N	Min	Max	Mean	SD
Investment experience in bonds & Mutual fund	386	1	5	2.55	1.201
Knowledge about investment	386	1	5	2.19	0.889
Calculation of interest on investment	386	1	5	1.83	0.919
Investment in shares	386	1	5	2.10	1.055
Financial knowledge usage to Make financial decisions	386	1	5	1.95	0.924
Aggregate Mean & Standard Deviation				2.12	0.997

Source: survey Data (2021)

Computational Capability of Retirement Benefit

The respondents were asked in a five point Likert questions to indicate the ability to compute their retirement benefits and the analyzed result is discussed in the Table 3.

Computational Capability of Retirement Benefit	N	Min	Max	Mean	SD
Monthly Saving	386	1	5	2.48	1.174
Understanding needs at retirement	386	1	5	2.43	1.364
Knowledge of how much to save	386	1	5	2.14	1.100
Monthly for retirement					
Calculation done to estimate savings	386	1	5	2.21	1.091
For retirement					
Calculation of benefits due on retirement	386	1	5	2.24	0.947
Aggregate Mean & Standard Deviation				2.30	1.135

Source: Survey Data (2021)

A mean response of less than 1 implies not at all, 1.1 to 2 implies to a less extent, 2.1 to 3 implies moderate extent, 3.1 to 4 implies a large extent and 4.1 to 5 implies very large extent. As it can be seen from table 4.4.2 the respondents have had moderate level experience in monthly saving (mean of 2.48), a moderate extent on understanding

needs at retirement (mean of 2.43), a moderate extent on calculating benefits due on retirement (mean of 2.24), a moderate extent on calculating done to estimate savings for retirement & about knowledge of how much to save monthly for retirement (mean of 2.21 & 2.14), respectively. Hence, computational capability of retirement benefits is known and understood by responds in a level of moderate extent (mean of 2.3, standard deviation of 1.135).

Inferential Statistics

This section presents the inferential statistic of knowledge of financial instrument, computational capability of retirement benefits regressed with adopting of personal retirement plan. And the analyzed result was discussed in table 4(a).

shares & financial knowledge usage to make financial decisions) and computational capability of retirement benefits (monthly saving, understanding needs at retirement, knowledge of how much to save monthly for retirement, calculation done to estimate savings for retirement and Calculation of benefits due on retirement) & the model is;
 $APRP = 2.056 + .357IE + 0.269KI + 0.291CII - 0.447IS + 0.352KFD + 0.168MS + 0.426NR + 0.294KHSR + 0.197CSSR - 0.316CBR.$

This regression shows that the adjusted coefficient of multiple determinant=0.265 which implies that financial literacy explains 26.5% of the variation on adoption of personal retirement plan. The regression model also observed to have a good fit of the model as it was significant at F= 13.643, P-value 0.05.

In addition to this, the regression analysis also revealed that holding financial literacy to constant zero; adoption of personal retirement plan would be 2.05. The study examined if there was a significant effect between the dependent & independent variables while seeing their effect on another.

The second important objective was to analyze the effect of computational capability of retirement benefits on adoption of personal retirement plan. The regression model estimated on table 4.5.1 shows that there was a significant effect of understanding needs at retirement (B=-0.426, t=-0.4375, P=0.000) and knowledge of how much to save monthly for retirement (B=0.294, t=3.142, P=0.02) on adoption of personal retirement plan.

Table 4(a) Relationship Between Dependent & Independent Variable (Step1) Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.461	.170		20.351	.000
Financial Literacy	.235	.074	.160	3.175	.002

a. Dependent Variable: Adoption of personal Retirement Plan

Table 4(b) shows Model Summary of table 4(a) Model Summary

Model	R	R Square	Square	Std. Error of the Estimate
1	.160 ^a	.026	.023	1.715

a. Predictors: (Constant), Financial Literacy

Table 4(c) shows ANOVA result of table 4.4.(a)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.640	1	29.640	10.080	.002 ^b
	Residual	1129.181	384	2.941		
	Total	1158.821	385			

a. Dependent Variable: Adoption of personal Retirement Plan

b. Predictors: (Constant), Financial Literacy

Source, Survey, 2021

The model also shows a positive effect on adoption of personal retirement plan. The findings infer that an increase of 0.426 & 0.294 on adoption of personal retirement plan is attributed to a unit increase in understanding needs at retirement & knowledge of how much to save monthly for retirement

Table 4 showed and adjusted coefficient of determination of 0.23; the value is very close to R square. The regression model is statistically significant at F (1,384) = 10.08 and P value of 0.002, thus the proposed model fitted the data well. In addition, financial literacy explains that 23% of the variation by a linear model in adopting personal retirement plan at 95% level of confidence. The ANOVA also gave a calculated probability of 0.002 which is below the confidence level of 0.05 showing the validness of the data in drawing inferences and making conclusions on the population parameters which also indicating strong relationships among the variables. $APRP = 3.461 + 0.235FL$. The regression model estimated above established that financial literacy is statistically significant (B=0.235, t=3.175, P-Value=0.002).

This confirms the need for moderation of the following reason that the relationship between financial literacy and adoption of personal retirement plan is significant at 95% confidence level. Hence, the model showed that having financial literacy to constant zero, adoption of personal retirement plan would be 3.461 and in addition to that, a unit increase in financial literacy lead to an increase of 0.235 adoption of personal retirement plan. The second step involved a regression of the dimensions of the demographic characteristics as explanatory variables of adoption of personal retirement plan. This was intended to check if demographic dimensions are explanatory variables or not.

The regression model without moderation is statistically significant at F (6,379) = 6.253 with calculated probability of 0.000. As presented on table 4.5.3(a), all the demographic attributes are statistically significant in their relationship with adoption of personal retirement plan except marital status. Education Level (B= 0.311, t= -2.130, P=0.001), Income Level (B=0.88, t=2.255, P=0.000), Dependents (B=0.309, t=2.421,

Table 5(a) Shows the Relationship Between Independent, Moderator & Dependent Variable Coefficients^a

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.167	.797		3.971	.000
Age	-.383	.150	-.139	-2.554	.001
Sex	-.478	.182	-.132	-2.621	.004
Marital status	-.255	.136	-.103	-1.877	.061
Education Level	.311	.146	.106	2.130	.001
Income Level	.088	.039	.117	2.255	.000
Dependents	.309	.128	.136	2.421	.000

a. Dependent Variable: Adoption of Personal Retirement Plan

Table 4.5 (b) shows model summary of table 4.5(a)

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.300 ^a	.090	0.76	1.668	

a. Predictors: (Constant), Age, Sex, Marital status, Education Level, Income Level & Dependents

Table 4.5 (c) shows ANOVA results of table 4.5(a)

ANOVA^a

	Sum of Squares	df	Mean Square	F	Sig.
Regression	104.387	6	17.398	6.253	.000 ^b
Residual	1054.434	379	2.782		
Total	1158.821	385			

Source: Survey Data (2021)

a. Dependent Variable: Adoption of personal Retirement Plan (APRP)

b. Predictors: (Constant), Age, Sex, Marital Status, Education Level, Income Level & Dependents APRP= 3.167-0.383Age-0.478Sex-0.255 Marital Status+0.311 Education Level+0.88 Income Level+0.309 Dependents

P=0.000) have a positive effect on adoption of personal retirement income. Age (B= -0.383, t= -2.554, P=0.001), Sex (B= -0.478, t=-2.621, P=0.004) have a negative effect on adoption of personal retirement plan. However, Marital Status (B=-0.255, t=-1.877, P=0.061) has no any effect on adoption of personal retirement plan., These findings confirm earlier findings by Agunga(2018) & by Kim, Kwon & Anderson(2005) writings which suggested that education level, household income and dependents is statistically significant and positively influence adoption of personal retirement plan. The findings are a departure from the propositions by Agunga(2018) that age & sex are statistically significant but negative related with adoption of personal retirement plan. In addition to that dependent are statistically

significant and positively influence adoption of personal retirement plan.

Thirdly, the moderation is captured by estimating a multiple regression model incorporating the demographic characteristic, financial literacy & adoption of personal retirement plan

The regression results reveal that at 95% of confidence, all the coefficients are statistically significant except marital status & dependents. Financial literacy (B=0.440, t=10.321; p=0.000), Age (B=-0.460, t=-4.321; p=0.000), Sex (B=-0.361, t=-3.099; p=0.002), Education level (B=0.299 t=4.289; p=0.00), Income level (B=0.587, t=8.657;

Table 6. (a) shows the relationship between Independent, Moderator & Dependent Variable Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	1.557	.542		2.875	.004
Financial Literacy	.440	.043	.409	10.321	.000
Age	-.460	.106	-.171	-4.321	.000
Sex	-.361	.116	-.125	-3.099	.002
Marital status	-.099	.041	-.096	-2.434	.015
Education Level	.299	.070	.178	4.289	.000
Income Level	.587	.068	.350	8.657	.000
Dependents	-.135	.114	-.047	-1.187	.236

a. Dependent Variable: Adoption of Personal Retirement Income

Table 4.6(b) shows Model Summary of table 4.6(a)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.672 ^a	.451	.441	1.074	.799

a. Predictors: (Constant), financial literacy, Age, Sex, Marital Status, Education Level, Income Level & Dependents

b. Dependent Variable: Adoption of Personal Retirement Plan

Table 4.5.4(c) shows ANOVA results of table 4.5.4(a)

ANOVA^a

	Sum of Squares	df	Mean Square	F	Sig.
Regression	358.112	7	51.159	44.373	.000 ^b
Residual	435.808	378	1.153		
Total	793.920	385			

Source: Survey Data (2021)

a. Dependent Variable: Adoption of Personal Retirement Plan (APRP)

b. Predictors: (Constant), financial Literacy, Age, Sex, Marital Status, Education Level, Income Level & Dependents APRP=1.557+0.440FL-0.460Age-0.361Sex-0.099MaritalStatus+0.299Education Level+0.587Income Level-0.135Dependents.

p=0.00), and financial literacy, education level & income level are positively related with adoption of personal retirement plan. Age & sex are negatively related with adoption of retirement plan. However, marital status (B=-0.099, t=-2.434; p=0.015) dependents (B=-0.135, t=-1.187; p=0.236) are not statistically significant.

Discussion

financial theory posits that forward looking individuals vitalize expected life time utility

retirement wealth & assets over their working life time. They have also increased their savings fast enough to adjust for declines in other sources of income. Similarly, this study sought to analyze the effects of financial literacy on adoption of personal retirement plan among the respondents.

The multiple regression analysis results indicated the effects of financial literacy on adoption of personal retirement plan among the respondents. The multiple regression

analysis results indicated that financial knowledge of instruments as part of financial literacy explains 26.5% of the variation on adoption of personal retirement plan. Secondly an attempt was to analyze the effect of computational capability of retirement benefits on adoption of personal retirement plan.

The multiple regression analysis showed that there was significant effect of understanding needs at retirement ($t=0.000$) & knowledge of how much to save monthly for retirement ($P=0.02$) on adoption of personal retirement plan at 95% level of confidence. The model also showed a positive effect on adoption of personal retirement plan. The findings inferred that an increase of 0.426 & 0.294 on adoption of personal retirement plan is attributed to a unit increase in understanding needs at retirement and how much to save monthly for retirement. To support this finding empirically, Mourine (2018) suggested the needs for organizations to introduce training for their specific employees on retirement annuities computation and the factors that influence the annuities because in his study, he investigated that there was a positive effect of computational capabilities of retirement benefits & adoption of personal retirement plan. According to Hauff et al. (2020) a significant impact of fact based and subjective financial literacy are found on three time-ordered stages of individuals' retirement behavior: planning, saving, and investment management. The authors concluded that policies increasing final literacy are important in different phases of he life cycle

Nagare et al. (2014) investigated the impact of financial literacy on personal retirement planning in the informal sector and noted that old age dependency level is estimated more than quantiles. Thought he concludes that income significantly affects adoption of personal retirement plan. In this regard financial literacy was regressed on adoption of personal retirement plan and the regression model was statistically significant at $F(1,384) = 10.08$ and P value of 0.002, thus the proposed model fitted the data well. In addition, independently financial literacy explains that 23% of the variation is by linear model on adoption of personal retirement plan at 95% level of confidence. The ANOVA also produced a calculated probability of 0.002 which is below the confidence level of 0.05 showing the idealness of the data in drawing inferences

and making conclusions on the population parameters which also indicating strong relationship among the variables.

The estimated regression model established that financial literacy is statistically significant ($B=0.235$, $t=3.175$, P value=0.002). This confirms the need for moderation of the following reason that the relationship between financial literacy and adoption of personal retirement plan is significant at 95% confidence level. This model also showed that having financial literacy on constant zero, adoption of personal retirement plan would be 3.461 and in addition to that, a unit increase in financial literacy lead to an increase of 0.235 adoption of personal retirement plan.

To support this result empirically, Otsola (2011) establishes that financial literacy varies significantly amongst individuals on their basis demographic characteristics. Similarly, in the second objective, this study sought to analyze the effect of the moderating variables of demographic characteristics on the relationship between financial literacy and adoption of personal retirement plan. The regression model showed the demographic variables are statistically significant at $F(6,379) = 6.253$ with calculated probability of 0.000. In this study all the demographic attributes are statistically significant in their relationship with adoption of personal retirement plan except marital status. Marital status has no any effect on adoption of personal retirement plan. However, with moderation the regression result finds that variations in financial literacy explains 44.1% of the variations on adoption of personal retirement plan and a unit increase in financial literacy leads an increase of 1.557 in adopting personal retirement plan.

In addition, the regression results indicated that, at 95% of confidence, all the coefficients are statistically significant except marital status & dependents. Financial literacy ($B=0.0440$, $t=10.321$, $P=0.000$), age ($B=-0.460$, $t=-4.321$, $P=0.000$), sex ($B=-0.361$, $t=3.099$, $P=0.002$), education level ($B=0.299$, $t=4.289$, $P=0.000$), income level ($B=0.587$, $t=8.657$, $P=0.000$), and financial literacy, education level, income level are positively related with adoption of personal retirement. Whereas age & sex are negatively related with adoption of personal retirement plan. However, marital status ($B=-0.099$, $t=-2.434$, $P=0.015$) & dependents ($B=-0.135$, $t=-1.187$, $P=0.236$) are not statistically significant.

Empirical literatures have been able to account that wealth & health are the pertinent factors contributing to successful retirement. Equivocally, the third objective of this study sought to establish the moderating effect of financial factors on the relationship between financial literacy and adoption of personal retirement plan. Without moderation the regression model indicated that 10.2% of the variations in adoption of personal retirement plan are explained by variations by financial factors. Here without moderation the regression model revealed that adequate monthly salary ($B=0.258$, $t=2.85$, $P=0.004$) and expenditure management ($B=0.352$, $t=3.884$, $P=0.000$) are statistically significant at 95% level of confidence & positively related with adoption of personal retirement income. On the other hand access to loan ($B=-0.277$, $t=-2.421$, $P=0.016$) and access of funds for emergencies ($B=-0.153$, $t=-1.353$, $P=0.177$) are not statistically significant at 95% level of confidence.

With moderation, the regression results indicated that 12.4% of the variations in adopting personal retirement plan are explained by the variations in financial literacy. In addition to this, the regression results indicated that financial literacy ($B=0.236$, $t=3.257$, $P=0.000$), adequate monthly salary ($B=0.300$, $t=3.370$, $P=0.001$) expenditure management ($B=0.332$, $t=3.699$, $P=0.000$) are statistically significant at 95% level of confidence and positively related with adoption of personal retirement plan. Access to loan ($B=-0.221$, $t=-1.932$, $P=0.054$) & access of fund for emergencies ($B=-0.193$, $t=-1.716$, $P=0.087$) are not statistically significant at 95% level of confidence.

Conclusion

The effect of financial literacy is profound for adopting personal retirement plan. Peoples who have a lower-level of financial literacy will in general get more and gather few riches. The more averse to contribute and bound to encounter challenges with an obligation. Evidences showed that public employees demonstrated despite the fact that they earned lower sensible pay; they are not monetary wealthy; their financial illiteracy is high, driving so many individuals to acquire avoidable fines.

This study has examined the effect of financial literacy on adoption of personal retirement plan among public employees in Addis Ababa city administration. And the study revealed that financial knowledge of

instruments & computational capability of retirement benefits are significantly related with adoption of personal retirement plan. Secondly, out of six four of the demographic attributes (age, sex, education level, income level) as moderating factors are significantly related with financial literacy as variations to adoption of personal retirement plan.

Thirdly, out of four financial factors, two of the factors (adequate monthly salary & expenditure management) as moderating factors are strongly & positively related with financial literacy as variations to adoption of personal retirement plan. Financial, social protection analysts and researchers are continuing to study the effects of financial literacy on adoption of personal retirement plan & finds way to overcome the challenges that come out from financial illiteracy. In the future, the researcher hopes this research will raise awareness about the importance of financial literacy for adopting personal retirement plan. Lastly, actions are required to appreciate public employees to get the chance to improve their level of financial literacy by establishing proper guideline & providing training to public employees. Further, more research & systematic investigation is needed to understand the relationship between financial literacy & adoption of personal retirement plan.

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