Effect of Financial Literacy on Perceived Retirement Saving Adequacy Among Public University Employees in Kenya

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Introduction

- Financial literacy refers to the ability of individuals to understand financial concepts, products and services (OECD, 2005; Miller et al., 2009).
- It aims to improve financial well-being by promoting short-term and long-term financial stability through informed personal assessments (FSD, 2009).
- Studies show that financial literacy significantly influences saving behavior, retirement planning, debt management and wealth administration, with higher literacy levels promoting a culture of savings and economic growth (Agnew et al., 2007; FSD, 2009; Lusardi et al., 2010; FinEd, 2011).
- Further, Financial literacy equips individuals with essential knowledge to establish savings, manage budgets, allocate resources, and make strategic investment decisions, thereby enhancing their economic well-being (Greenspan, 2002; Mwangi & Kihiu, 2012).

- It also promotes confidence in managing retirement plans and pension funds through effective long-term financial strategies (Agnew & Szykman, 2011; Gitari, 2012).
- Differences in the degree of financial literacy among adult populations in various countries have been noted by researchers (van Rooij et al., 2012; Lusardi and Mitchell, 2011; Klapper et al., 2015).
- The influence of financial literacy on retirement planning has been well-documented, with studies showing that individuals with higher financial literacy are more likely to engage in retirement planning and exhibit better financial preparedness (Nyoro & Otieno, 2016; Kim & Garret, 2005; Taylor & Doverspike, 2003).
- However, some individuals with limited financial knowledge may still engage in retirement planning, though their financial decisions often lead to negative consequences, such as lower wealth accumulation and reduced participation in retirement plans (Lusardi et al., 2010; Sang et al., 2014).

- Financial literacy is linked to the ability to execute basic financial calculations and also cognitive skills (Skagerlund et al., 2018).
- Similarly, informal financial education, derived from everyday experiences and social interactions, significantly enhances financial literacy, complementing formal education and encouraging more practical, experience-based learning (Krajnak et al., 2008; Lusardi, 2008).
- A lack of fundamental financial understanding hinders households' ability to manage investments and savings effectively, while core financial skills positively influence retirement planning and economic decision-making (Van Rooij et al., 2011; Lusardi & Mitchell, 2009-2017).
- Financial education programs and informal financial education have been found to enhance individuals' financial literacy and positively impact their retirement planning behavior (Clark & d'Ambrosio, 2003; Lusardi, 2008).

- Studies also show that training programs on financial awareness and retirement education improve financial preparedness and positively influence retirement planning behaviors (Kim et al., 2005; Taylor & Doverspike, 2003).
- Clark and d'Ambrosio (2003) found that retirement seminars positively influence participants' retirement perspectives, planning, and saving strategies
- Mitchell and Lusardi (2011) found that younger individuals are more inclined toward financial planning, focusing on asset accumulation and investments, while older generations rely more on retirement resources.
- However, younger individuals often engage less in retirement preparation, preferring alternative investment opportunities and relying on informal financial education from sources like social media (Lusardi & Tufano, 2009).

- Despite the importance of financial literacy, many individuals, including public university employees in Kenya, exhibit low levels of financial knowledge.
- This deficiency hampers their ability to make informed retirement planning decisions, leading to inadequate savings (Wachira & Kihiu, 2012; Murigi, 2018).
- Public university employees in Kenya are typically enrolled in pension schemes, such as the Universities Pension Scheme (UPS), to ensure they have adequate savings upon retirement.
- However, there are concerns about the adequacy of these savings, as many employees express uncertainty about whether their retirement savings will meet their future needs.
- The lack of targeted financial literacy programs for public university employees exacerbates the problem (Chege, 2016).
- This study aims to investigate the effect of financial literacy on perceived retirement saving adequacy among public university employees in Kenya.

Theoretical Foundation

- This study was guided by The Life-Cycle Theory (LCT), initially formulated by Modigliani and Brumberg (1954), is a cornerstone in understanding individual saving and consumption behaviors over a lifetime.
- According to the LCT, individuals aim to smooth their consumption throughout different stages of life by saving during their earning years and dissaving during retirement.
- This theory assumes that individuals are rational planners who anticipate their future needs and plan accordingly (Ando & Modigliani, 1963).
- The Life-Cycle Theory also emphasizes the importance of understanding life expectancy, expected retirement age and post-retirement needs.
- Financially literate individuals are more likely to accurately estimate these factors and plan their savings accordingly (Friedman, 1957).
- For public university employees, who might have access to various retirement plans and financial products, financial literacy is key for making informed decisions that align with their long-term financial goals.

Empirical review

Effects of Financial Literacy on Retirement Planning Activities

Aluodi et al. (2017): Financial literacy had no statistically significant impact on retirement preparedness among insurance sector employees in Kenya.
Agunga Mourine (2017): Financial literacy showed no significant impact on retirement preparedness among permanent state employees in Kenya.
Njuguna et al. (2011): Members of occupational pension schemes in Kenya displayed higher pension literacy than general financial literacy but faced limited engagement opportunities.
Mwathi (2017): Financial literacy positively influenced financial decision-making at Egerton University, but attitudes had no significant impact.
Gitari (2012): Financial literacy significantly influenced resource allocation for retirement among pension scheme members in Nairobi, Kenya.
Onduko et al. (2015): Financial literacy was a critical factor influencing savings behavior and retirement planning in Kenya.

Githui and Ngare (2014): Financial literacy in Kenya’s informal sector positively influenced retirement planning outcomes.

Gitau and Otsola (2011): Pension financial literacy in Kenya varied by demographics and engagement but was unaffected by marital status.

Rono et al. (2021): Entrepreneurial intensity, financial considerations, and personal traits significantly influenced retirement intentions among Kenyan public employees.

Gitari (2012): Financial literacy significantly influenced resource allocation for retirement among pension scheme members in Nairobi, Kenya.

Onduko et al. (2015): Financial literacy was a critical factor influencing savings behavior and retirement planning in Kenya.

Githui and Ngare (2014): Financial literacy in Kenya’s informal sector positively influenced retirement planning outcomes.

- From the discussions this study proposed the hypothesis;

H_{01}**:** *Financial literacy has no significant effect on perceived retirement saving adequacy among university employees in Kenya*

Methodology

- This study utilized positivist philosophical perspective and employed explanatory research design.
- The target population was 17,320 public university staff members working in the metropolitan area of Nairobi, Kenya.
- Using Taro Yamane (1973) sample size formula which was modified by Kent (2008) was used to derive to a sample size of 390 respondents.
- Then, Neyman (1992) allocation formula was used to allocate the sample size for each stratum.

Institution	N	Nh=n(Nh/N)	Sample per stratum	
University of Nairobi	8195	390x 8,195/17,320	184	Academic -60 Adm- 124
Kenyatta University	5210	390x 5,210/17,320	117	Academic-36 Adm- 81
JKUAT	2630	390x 2,630/17,320	59	Academic-11 Adm- 48
TUK	1285	390x 1,285/17,320	29	Academic-16 Adm- 13
Total	17320			390

- Closed ended questionnaires was used to collect the data which was first piloted with university staff members in Eldoret.
- Reliability was assessed using Cronbach's alpha.
- Validity was assessed using confirmatory factor analysis.
- Data was analysed using both descriptive and inferential statistics.
- The model for multiple regression analysis used was as follows;

- PRSA $=\beta_0+\beta_1 c_1 + \beta_2 c_2 + \varepsilon$……………………………………..1
- Where RPSA =Perceived Retirement Saving adequacy
- C1 – C2 = controls,
- β1… β2= the slope/coefficients
- ε = error term

Results

Demographic Characteristics of the respondents

		Frequency	Percent	Cumulative Percent
Gender	Male	219	57.3	57.3
	Female	163	42.7	100.0
	Total	**382**	**100.0**	
Age group	Below 25 years	24	6.3	6.3
	26-35 years	114	29.8	36.1
	36-45 years	135	35.3	71.4
	46-55	66	17.3	88.7
	More than 55 years	43	11.3	100.0
	Total	**382**	**100.0**	
Experience	Below 5 years	13	3.4	3.4
	5-10 years	24	6.3	9.7
	11-15 years	66	17.3	27.0
	15-20	141	36.9	63.9
	Above 20 years	138	36.1	100.0
	Total	**382**	**100.0**	
Education	Primary Certificate	15	3.9	3.9
	Secondary Certificate	39	10.2	14.1
	Diploma	82	21.5	35.6
	Bachelor's degree	121	31.7	67.3
	Master's degree	94	24.6	91.9
	PhD degree	31	8.1	100.0
	Total	**382**	**100.0**	
Cadre	1-4	148	38.7	38.7
	5-10	111	29.1	67.8
	11-15	104	27.2	95.0
	15-17	19	5.0	100.0
	Total	**382**	**100.0**	
Terms of Service	Contract	135	35.3	35.3
	Permanent	194	50.8	86.1
	Casual	53	13.9	100.0
	Total	**382**	**100.0**	

Descriptive Statistics for Perceived Retirement Savings Adequacy

- The perceived retirement savings adequacy was measured using four items. Each item was rated in a five Likert scale for which 5 = Strongly Agree, 4 = Agree, 3 = undecided, 2 = Disagree, 1=Strongly Disagree.

Descriptive Statistics					
	N	**Min**	**Max**	**Mean**	**Std. Dev**
I am saving enough to retire comfortably	382	1	5	3.72	1.468
I expect to have a good retirement income	382	1	5	4.11	.928
I think I will have enough money to retire comfortably	382	1	5	3.99	1.378
Based on how you expect to live in retirement and given that you do not adjust your current saving behavior, it’s expected that you will have adequate resources to retire comfortably	382	1	5	4.26	1.030

Descriptive Statistics for Financial Literacy

- Financial literacy was measured using eight items each rated on the Likert scale; 5 = Strongly Agree, 4 = Agree, 3 = undecided, 2 = Disagree, 1=Strongly Disagree.

Descriptive Statistics					
	N	**Min**	**Max**	**Mean**	**Std. Dev**
I have better understanding of how to invest my money	382	1	5	3.46	1.515
I have better understanding of how to manage my credit use	382	1	5	3.83	1.294
I have a very clear idea of my financial needs	382	1	5	3.71	1.407
I have the ability to maintain financial records for my income and expenditure.	382	1	5	3.68	1.490
I have little or no difficulty in managing my money	382	1	5	3.92	1.235
I have the ability to prepare my own weekly (monthly) budget	382	1	5	3.76	1.301

Correlation Analysis

		PRSA	FL
PRSA	Pearson Correlation	1	
	Sig. (2-tailed)		
FL	Pearson Correlation	.674**	1
	Sig. (2-tailed)	.000	

It’s evident that there was a high positive significant correlation between financial literacy and perceived retirement savings adequacy correlates with coefficients $\rho = .674, p = .000$).

It indicates that for an employee of public university in Kenya to have adequate savings during retirement, he/she must be financially literate and sophisticated in order to enhance their retirement savings.

Factor Loading on Perceived Retirement Savings Adequacy

Rotated Component Matrix[a]

	Component		
	1	2	3
I am saving enough to retire comfortably	.841		
I expect to have a good retirement income		.891	
I think i will have enough money to retire comfortably	.822		
Based on how you expect to live in retirement and given that you do not adjust your current saving behavior, it’s expected that you will have adequate resources to retire comfortably	.423		.848

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 4 iterations.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.836
Bartlett's Test of Sphericity	Approx. Chi-Square	1173.279
	Df	6
	Sig.	.000

Factor Loading on Financial Literacy

Rotated Component Matrix[a]

	Component		
	1	2	3
I have better understanding of how to invest my money		.420	.804
I have better understanding of how to manage my credit use	.466	.583	.608
I have a very clear idea of my financial needs		.812	.437
I have the ability to maintain financial records for my income and expenditure.	.745	.519	
I have little or no difficulty in managing my money	.884		
I have the ability to prepare my own weekly (monthly) budget	.637	.557	.511

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.852
Bartlett's Test of Sphericity	Approx. Chi-Square	3508.683
	Df	15
	Sig.	.000

Hypothesis testing

- The study tested control factors before direct effect hypotheses. Table below shows hierarchical regression analysis.

Variables	Model 1
	Coeff. (β)
Gender	.048(.245)
Age	-.006(.868)
Experience	-.031(.416)
Education level	.031(.422)
Cadre	.051(.187)
T. of service	.026(.492)
FL	.664**(.000)
R^2	.462
Adj. R^2	.452
ΔR^2	.428
F- statistic	45.958
P>F	.000

The hypothesis stated that financial literacy has no significant effect on perceived retirement saving adequacy among university employees in Kenya**.** Based on the findings shown in Table 3, it can be concluded that there is a positive relationship between financial literacy and retirement savings adequacy (β=.664, p=.000).

The aforementioned findings suggest that the initial hypothesis, H_{01}, which posited that there is no relationship between financial literacy and perceived retirement savings adequacy among university staff in Kenya, was refuted. Instead, it was observed that financial literacy does indeed have a significant impact on retirement savings adequacy.

Discussion

- The finding of this study, which indicates a positive relationship between financial literacy and retirement savings adequacy, $\beta = .664$, $p = .000$, is in agreement with various studies that indicate the importance of financial literacy in retirement planning.
- For example, Bernheim and Garrett (2003) found that company-provided financial education significantly improved savings behavior and retirement planning, thus supporting the idea that financial literacy enhances the preparedness of workers for retirement.
- In Kenya, the studies by Gitari (2012) and Onduko et al. (2015) underlined the significant role that financial literacy played in enhancing retirement planning for pension scheme members, strengthening the notion that knowledge of finance enables one to plan and allocate resources better for retirement.
- On the other hand, results from Moure (2016) and Kalmi and Ruuskanen (2018) indicate that low financial literacy may restrain retirement planning, which again underlines the importance of financial education in terms of adequate retirement savings.

Conclusion and Recommendation

- The research findings indicate that financial literacy have a positive impact and correlation on the sufficiency of retirement savings among public university staff in Kenya.
- This implies that university personnel who possess a strong comprehension of financial problems tend to exhibit greater confidence in the sufficiency of their retirement resources.
- Public university workers will likely engage financial literacy programs and retirement savings plans if they feel like such actions will result in a comfortable retirement.
- The study recommends that government should invest in financial literacy programs, both for employees and the general public.
- Further, the government as well as the university’s pension schemes should conduct awareness campaigns to ensure pensioners are well-informed about their contributions and retirement savings.

THANK YOU FOR LISTENING