

Retirement Plans Preferences in the Philippines

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Abstract. This paper examines preferences of Filipino workers and retirees for employer retirement plans. In particular, it assesses the relationships of retirement plan preferences to variables such as attitudes towards retirement savings, financial literacy, behavioral biases and demographic/socioeconomic characteristics through inferential statistics. A total of 343 usable questionnaires were received and analyzed. Results indicate that the most important plan attribute is a non-financial factor, Socially Responsible Investing (SRI). Interestingly, the participants' retirement plan preferences are not significantly correlated to savings attitudes, financial knowledge, behavioral biases and demographic/socioeconomic variables. Results of this study could serve as a powerful platform for business and policy proposals from practicing actuaries and government institutions on areas like adoption of retirement programs and evaluation of their effectiveness.

Keywords: retirement plan preferences, savings attitudes, financial literacy, behavioural bias

1. Introduction

In the Philippines, children are expected to take care of their aged parents during retirement but some Filipinos are now deviating from this norm. Some retired Filipinos look at their personal savings, pensions and estate to provide the needed funds when they are no longer working.

Research plays an important role in determining the salient features of retirement plans tailored to the needs of retiring individuals. The purpose of this study is to evaluate worker and retiree preferences for employer-sponsored retirement plans and to determine the relative importance of these plans' attributes using conjoint analysis. Further, the study also assessed the relationships of retirement savings attitudes, levels of financial literacy, behavioural factors, and demographic/socio-economic factors with these preferences.

2. Theoretical Framework

The World Bank has set out a new, more balanced funding model based on three pillars of pension provision which are: the role of social security (pillar 1), traditional occupational schemes such as defined benefit of fixed salary scheme (pillar 2) and the defined contribution accounts (pillar 3). The present study dwelt on these personal pension choices redefined by a few factors.

3. The Research Model

A research model was developed for this study as shown in Fig. 1. Workers and retirees preferences for employer retirement plan structure were hypothesized to be correlated with four constructs: attitudes toward retirement savings, level of financial literacy, behavioural factors and demographic/socioeconomic characteristics of individuals.

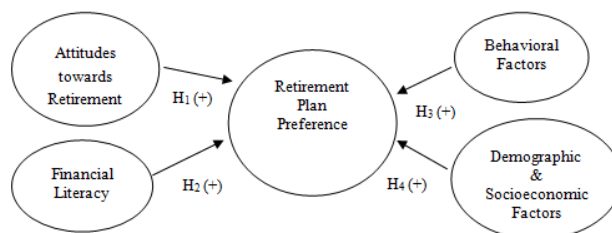


Fig. 1: The Hypothesized Model.

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4. Methods

The study was conducted among 343 employed individuals whose current employers may or may not offer retirement plans and retired individuals who maybe receiving or may have received retirement benefits from an employer-sponsored retirement plan.

An extensive review of the literature enables the researcher to design a five-part questionnaire which was subjected to Cronbach Alpha testing yielding the following satisfactory coefficients: attitudes towards savings, .800; and behavioural factors, .79.

The questionnaire started with demographics and socioeconomic inquiry. The second part is a five-question attitudinal question excerpted from the study by MacFarland, Marconi, and Utkos (2004 by permission of Oxford University Press). The third area is on financial literacy consisting of five numeracy skills questions where the first four were adapted from the study by Gerardi, K. Goette, L. Meier, S. (2010). The fourth section deals with behavioural factors comprising two questions filtered from the article of Padgett and Paulin (2006) and the other two were coined from various sources.

The fifth or last segment is the conjoint study of the respondents' retirement plan preferences. Five attributes or factors were identified with two levels each resulting to 32 ($2 \times 2 \times 2 \times 2 \times 2$) possible combinations. The researcher applied orthogonal plan design to reduce the numbers of stimulus profile resulting to 8 free profiles and 2 holdouts. The respondents rated the 10 profiles according to their preference with #1 as the best and #10 as the least.

The scores in the attitude questions were classified as 'positive' (mean > 3.49) and 'not so positive' (mean < 3.5) attitudes. The respondents scores in the numeracy questions were indicative of 'high' financial knowledge (correct score > 50%) or 'low' financial knowledge (correct score < 51%). For the behaviour questions, the score were divided into 'unbiased' (mean > 4.49) and 'biased' (mean < 4.5) behaviour.

While conjoint analysis was used to highlight the preferences of the respondents, descriptive statistics were employed to establish the impact of different factors on these preferences. Structural Equation Modeling (SEM) using AMOS did not yield meaningful results, thus the researcher resorted to another statistical package, SPSS and used tools like Pearson correlation, t-test and spearman rho to test the hypotheses of this study.

5. Results

A full profile conjoint analysis on the respondents was conducted which yielded results summarized in Table 1 and Table 2. Utility scores reflecting the importance of the attributes to investors and the rank of each of the levels within attributes are presented in Table 1. As can be seen, respondents do care if the company where the pension funds are placed are investing socially responsible, with the highest utility score of .609.

Table 1: Conjoint analysis – utility estimates

Attributes	Levels	Utility Estimate	Rank	Std Error
Plant Type	Defined benefit (DB) plan	.276	2	.152
	Defined contribution (DC) plan	-.276	9	.152
Investment of funds in Stocks or in Bonds	Stocks only	.051	3	.139
	Bonds only	-.051	8	.139
Socially Responsible Investing (SRI)	Do care if investing socially responsible	.609	1	.152
	Don't care if investing socially responsible	-.609	10	.152
Payout Option at Retirement	Series of regular payments	.050	4	.139
	Lump sum	-.050	7	.139
Ability to Withdraw from the Fund if you leave employer tomorrow	Get money immediately	.012	5	.139
	Get money at retirement	-.012	6	.139
(constant)		4.335		.139

From the 10 pension fund profiles shown to the survey participants, the profile in card number 2 is the most preferred with total utility values of 5.231 as shown in Table 2.

Table 2: Most preferred pension fund profile of Filipinos

Attributes	Levels	Utility Estimate
Plant Type	Defined benefit (DB) plan	.276
Investment in Stocks or in Bonds	Stocks only	.051
SRI	Do care if investing socially responsible	.609
Payout Option	Lump sum	-.050
Withdrawal from the Fund	Get money immediately	.012
(constant)		4.335
Total Utility		5.233

The respondents exhibited positive attitudes towards savings as shown in Table 3. Of the 5 attitude questions, only one is classified as ‘not so positive’.

Table 3: Attitudes towards retirement savings

	Mean	SD	Remarks
I usually pay off bills and/or credit cards when they are due every month.	4.33	1.048	Positive
I enjoy managing my money and budgeting finances.	4.21	0.921	Positive
I know the amount of money I would have saved in order to retire well.	3.78	1.062	Positive
I feel stressed out not having enough money for retirement.	3.38	1.276	Not positive
I rather spend and enjoy life today than to make sacrifices saving for the future.	3.59	1.243	Positive

Table 4 presents the correlation between attitude and the way the survey participants rank the 10 profiles for employer retirement plans. It is evident from the table that there is no significant relationship between the variables thus, hypothesis 1, asserting that attitudes towards retirement savings is correlated to retirement plan attributes preferred by workers and retirees, is not supported.

Table 4: Significant relationship between respondents’ attitudes and retirement plan preferences

	Card 1	Card 2	Card 3	Card 4	Card 5	Card 6	Card 7	Card 8	Card 9	Card 10
Pearson R	-.032	.051	.016	.020	-.004	-.082	.061	.005	.013	-.059
Sig	.556	.348	.764	.712	.533	.128	.260	.933	.805	.272

** significant at the 0.01 level (2-tailed)

* significant at the 0.05 level (2-tailed)

Table 5: Numeracy questions

	Correct		Incorrect		Remarks
	N	%	N	%	
In a sale, a shop is selling all items at half price. Before the sale, a chair costs P300. How much will it cost in the sale?	335	97.7	8	2.3	High
If the chance of getting the disease is 10%, how many people out of 1,000 would be expected to get the disease?	333	97.1	10	2.9	High
A second hand car dealer is selling a car for P60, 000. This is two-thirds of what it cost new. How much did the car cost new?	275	80.2	68	19.8	High
If 5 independent, unrelated people all have the winning numbers in the lottery and the prize is P2 million, how much will each of them get?	335	97.7	8	2.3	High
If you were to convert P120, 000 in savings at age 65 into a stream of fixed monthly payments to last 10 years of the rest of your life, ROUGHLY how much do you think you would get each month?	274	79.9	69	20.1	High

All the five numeracy questions represent high level of financial literacy among the respondents as seen in Table 5.

Table 6 presents the correlation financial literacy and preferences for retirement plans. Since the r values are not significant for the 10 profiles, hypothesis 2, predicting that the level of financial literacy is correlated to workers and retirees' preferences for retirement plans, is not supported.

Table 6: Significant relationship between financial literacy and retirement plan preferences

	Card 1	Card 2	Card 3	Card 4	Card 5	Card 6	Card 7	Card 8	Card 9	Card10
Pearson R	.046	-.089	.101	-.024	.065	.026	.077	-.024	-.034	.000
Sig	.391	.101	.062	.659	.232	.627	.156	.661	.536	.993

** significant at the 0.01 level (2-tailed)

* significant at the 0.05 level (2-tailed)

The respondents exhibited relatively biased behavior as confirmed by the scores in Table 7. They display behavior biases like myopic loss aversion, overconfidence, inability to exercise self-control, and investors' aversion to risk.

Table 7: Behavioral Biases

	Mean	SD	Remarks
Myopia	3.69	2.189	Biased
Over confidence	3.76	2.140	Biased
Self-control	3.89	2.001	Biased
Aversion to risk	4.36	1.938	Biased

Table 8: Significant relationship between behavioral factors and retirement plan preferences

	Card 1	Card 2	Card 3	Card 4	Card 5	Card 6	Card 7	Card 8	Card 9	Card10
Pearson R	.012	.057	-.059	.079	-.016	-.028	-.002	-.054	.019	.034
Sig	.827	.297	.274	.142	.771	.600	.970	.317	.729	.524

** significant at the 0.01 level (2-tailed)

* significant at the 0.05 level (2-tailed)

Since all the r values in Table 8 are not significant, hypothesis 3, suggesting that behavioral factors are related to the retirement plan preferences of workers and retirees, is not supported.

Table 9: Significant relationship between demographic/socioeconomic characteristics and retirement plan preferences

Profile	Card 1	Card 2	Card 3	Card 4	Card 5	Card 6	Card 7	Card 8	Card 9	Card10
Age										
Spearman's Rho	.021	.042	.097	.038	.042	-.076	-.031	-.067	-.011	-.009
Sig	.696	.441	.074	.483	.439	.162	.571	.215	.833	.871
Gender										
Pearson R	.066	.011	.045	-.072	.032	.080	.018	-.047	-.155**	-.001
Sig	.225	.837	.404	.183	.557	.141	.744	.381	.004	.982
Family Net Worth										
Pearson R	.017	-.036	-.023	-.110*	.094	-.062	-.029	.061	-.034	.079
Sig	.750	.502	.667	.042	.081	.253	.591	.257	.524	.144
Retirement Status										
Pearson R	-.004	-.012	-.076	.000	.029	.001	.078	-.079	-.024	.017
Sig	.945	.818	.160	.577	.591	.980	.150	.143	.663	.753
Employer has Retirement Program										
Pearson R	-.020	-.014	-.089	-.110*	.026	.015	.042	.012	-.045	-.054
Sig	.710	.798	.106	.044	.636	.791	.445	.822	.418	.326

** significant at the 0.01 level (2-tailed)

* significant at the 0.05 level (2-tailed)

Table 9 shows the relationship between respondents' demographic/socioeconomic characteristics and retirement plan preferences. However, only gender, family net worth and retirement programs offered by current employers have significant relationship to card number 9 and 4 which do not represent the card with the highest utility values based on the overall preferences of the survey participants. As previously presented in this paper, it is card number 2. Thus, the 4th hypothesis claiming that there is a correlation between demographic /socioeconomic variables and workers and retirees preference for retirement plans, is not supported.

6. Conclusion

This study contributes to the literature on retirement plan preferences by evaluating the relative importance of plan attributes to workers and retirees using conjoint analysis. Further, the study also assessed the relationship of attitudes toward savings, levels of financial literacy, behavioural factor, and demographic/socioeconomic variables with retirement plan preferences.

Results show that the attributes that drive participants' preferences (utility) for pension plans are the following factors ranked highest to lowest: socially responsible investing (SRI), defined benefit (DB) plan, investment in stocks only, series of regular payment at retirement, and get money immediately when participant leave employer. The SRI attribute was accorded the highest importance which is not in accordance with the findings of the study by Rietjens (2011) where SRI was the least important and the study by Vyvyan, Ng and Brimble (2004) where SRI questions were ranked almost of middle importance.

The respondents exhibited positive attitudes towards savings for retirement but these attitudes were not related at all to their retirement plan preferences. Levels of financial knowledge were very impressive but curiously, they were not correlated to the importance of retirement plans. The findings on the participants' behaviour were somewhat troubling because the tendency of the participants to show investment biases like myopic loss aversion, overconfidence, self-control and risk aversion tend to make them emotional rather than rational in making financial decisions (Kooreman and Prast, 2010) but interestingly, the study proves no significant relationship between behavioural factors and retirement plan preferences. In the case of demographic and socioeconomic variables, no significant relationship exists with retirement plan preferences.

The findings of this study with regards to the conjoint analysis could be recognized as an objective way of assessing what general features of a plan appealed to workers and retirees. This may help practicing actuaries and government institutions in making business and policy proposal on areas like adoption of retirement programs and evaluation of their effectiveness. However, further research is necessary to corroborate the result of the conjoint analysis using a wider population. Indeed, further research is also necessary to examine the findings of no significant relationship among variables in this study.

7. References

- [1] Gerardi, K. Goette, L. Meier, S. (2010, June 19). Financial literacy and subprime mortgage delinquency: Evidence from a survey match to administrative data. Working Paper Series No. 2010-10. *Federal Reserve Bank of Atlanta*. [Online]. Available: www.frbatlanta.org/pubs/WP/
- [2] Kooreman and Prast, "What does behavioral economics mean for policy? Challenges to savings and health policies in the Netherlands," *De Economist*, vol. 158, no. 2, pp. 101-122, 2010.
- [3] OUP Material: Pension design and structure: New lessons from behavioral finance edited by Mitchell & Utkus (2004) Ch. 6 "Money Attitudes" and Retirement Plan Design: One Size Does Not Fit All by Donna M. MacFarland, Carolyn D. Marcon & Stephen P. Utkus pp. 97-120, c. 80 words from Table 6.2 from pp. 105-107, www.oup.com
- [4] R. Padgette and T. Paulin, "Defining and measuring investor risk and return expectations," *The Monitor*, pp. 3-6, 2006.
- [5] M. Rietjens, (2012, June 19). Young people's preference for financial versus non-financial attributes of pension funds. *Netspan Theses*. [Online]. Available: <http://arno.uvt.nl>
- [6] V. Vyvyan, C. Ng, and M. Brimble, "The influence of gender on the SRI decision making process: A study of attitudes and preferences using conjoint analysis," *Journal of Accounting and Finance*, vol. 4, pp. 17-34, 2005.