

Retirement savings insight: A comparison between pensionable and contract employees at the University of Botswana.

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Introduction

- Retirement savings inadequacy is one of the pressing issues facing families all over the world.
- In countries such as Botswana, with many financially illiterate people who believe they can manage their financial affairs better than the next person, the problem is further compounded.
- Botswana employed on permanent and pensionable basis and on the defined benefit or defined contribution pension plans will not have a diverse portfolio of retirement savings assets compared to those employed on contract terms.
- This could be due to a lack of financial education and knowledge on issues affecting retirement savings

Study Aims

- To find out which categories of employees (on DC, DB, and Contract) had the most retirement asset classes; and
- To suggest appropriate intervention(s) that policy makers and financial practitioners could utilise for Botswana citizens, particularly employees, in order to encourage a savings culture during years of employment and therefore reduce dependency on government during retirement.

Study site

- Botswana - among the poorest countries at independence in 1966
- Middle income country
- GDP/capita of US\$ 7,627
- Economic growth spurred consumer confidence
- Resulting in higher consumption at the expense of savings



Methodology

- Data were collected using online survey questionnaire and paper based questionnaire from the University of Botswana (UB) staff comprising of; academic; support; and industrial staff.
- Respondents were recruited from three UB campuses of Gaborone; Francistown and Maun.
- The online survey was targeting the academic and support staff who have internet and were able to get a survey link via the University IT administrator email.
- The staff members from the industrial class were interviewed face-to-face by a research assistant using the same online questionnaire as the one used for academics and support.
- Response rate of 12.6 percent was achieved and used in this data analysis.
- Poisson regression was used to analyse the data (countable number of success) to answer the research questions of the study; “do you have any other retirement savings plans?” and was suitable as the variable had a Y-distribution and skewed to the right indicating non-normality of the data

Findings

- 57.1 and 53.1 percent of those interviewed did not make additional pension contribution in another registered pension fund nor had a retirement annuity with an insurance company respectively.
- These statistics indicate that a majority of UB employees are not independently supplementing their retirement savings

Findings

Goodness-of-fit and Omnibus Test

- The Omnibus Test was significant at p -value = 0.004 giving confidence that the model could be interpreted

Generalised Linear Model – Ascending Order

- Making Contract the reference category and comparing it to DC and DB plans
- The parametre estimates show significant p -values for RetSP = 1.00 (DC) and RetSP = 2.00 (DB) at $p = 0.000$ and $p = 0.003$ respectively when compare to Contract employees suggesting that both DC and DB contribute to the model
- DC and DB also have Exp(B) coefficient or Incident Rate Ratio (IRR) of 0.557 and 0.559 respectively signifying that employees in these two categories have a lower number of retirement asset classes compared to the reference category of contract employees.

Generalised Linear Model – Descending Order

- The only change observed in the parametre estimate relating to RetSP = 3.00 (Contract) illustrating that Contract significantly contributed to the model with p -value = 0.000 and Exp(B) = 1.796, whereas RetSP = 2.00 (DB) presented a non-significant p -value = 0.978 with Exp = 1.004.
- This indicated that Contract employees have more retirement asset classes, 1.796X, compared to employees in the DC plan.

DC employees vs DB employees

- It was discovered that those in DB scheme are not significantly different from their counterparts in the DC scheme.
- Further supported by Exp(B) = 1.004 and a non-significant p -value = 0.978, indicating that there is no significant relationship between them as they have a one-to-one effect.
- The results are consistent with the proposition posited earlier, that Contract employees are more likely to invest in more asset classes in comparison to employees in the DC and DB plans.

Comparisons of the different categories of employees (DC, DB and Contract) in terms of diversity of asset portfolios/classes

Table 1 - Parameter Estimates for Poisson Regression: Ascending Order

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)
			Lower	Upper	Wald Chi-Square	df	Sig.	
(Intercept)	.480	.1543	-.177	.782	9.660	1	.002	1.615
[RetSP=1.00]	-.586	.1660	-.911	-.260	12.455	1	.000	.557
[RetSP=2.00]	-.582	.1980	-.970	-.194	8.638	1	.003	.559
[RetSP=3.00]	0 ^a	.	.	.	.	.	.	1
(Scale)	1 ^b	.	.	.	.	.	.	.

Notes: RetSP=3.00, employees on contract is the reference category and it is being compared to RetSP=1.00 and RetSP=2.00, who are employees on defined contribution and defined benefit respectively. In the table below, the reference category is RetSP=1.00, defined contribution.

Table 2 - Parameter Estimates for Poisson Regression: Descending Order

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)
			Lower	Upper	Wald Chi-Square	df	Sig.	
(Intercept)	-.106	.0611	-.226	.014	3.017	1	.082	.899
[RetSP=3.00]	.586	.1660	.260	.911	12.455	1	.000	1.796
[RetSP=2.00]	.004	.1383	-.267	.275	.001	1	.978	1.004
[RetSP=1.00]	0 ^a	.	.	.	.	.	.	1
(Scale)	1 ^b	.	.	.	.	.	.	.

