Research Journal of Economic and Management Studies (RJEMS)
Vol.1, No.1. (2021). ISSN: 2789-6803.

Status Quo Bias on Retirement Investment Decisions at Great Zimbabwe University, 2020

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Abstract
The study sought to understand how the status quo bias affects the financial decision making behaviour of employees. A sample of 154 university employees were studied to find out how they would choose investment opportunities for their pensions. Short questionnaires were emailed to sampled employees and responses were expected within a week.The study was largely descriptive in nature and it used the simple regression model to analyse the relationship between investment decisions and employee attributes. The study was limited by the sampling technique used as not all staff could be accessible during the covid 19 pandemic but the high response rate made generalization of findings possible. It was found out that with small choice sets, individuals may still prefer their known investments without rationally weighing the options. The regression results show that most of the variables are not significant in explaining the decisions to invest by employees showing lack of rationality. The results also showed that most employees were not rational in their investment decisions as they did not weigh retirement options that gave the greatest return but they opted to remain in the investment that their employer had chosen for them previously. The results confirmed the existence of status quo bias in investment decisions. The study confirms that apart from cost benefit analysis individual decisions are influenced by cognitive biases. The study could also be replicated on a larger scale in future.

Keywords: *Behavioural finance, rationality, retirement investment, status quo bias.*

1. Introduction

The study is an empirical investigation of the behaviour of individual employees when faced with a number of investment decisions. Studies have been carried that show that with many choice sets individual investors get confused and revert to status quo as compared to when they have small choice sets (Dean,2008;Chan, 2018). This study seeks to investigate the existence of status quo bias and to test the hypothesis that even with small choice sets individuals may still prefer their known investments without rationally weighing the options.

Individual investors who are thought to be rational and should choose investment options that offer higher returns for the level of risk.Investor behaviour is thus generally expected to be logical and guided by reason and rationality (Baker & Ricciardi, 2014; Fleming, Thomas, & Dolan, 2010). Rationality assumes that individuals would always do a cost benefi analysis before they make their choices. Only those choices that are profitable or that give a return above the expected return would be chosen.It would appear that sometimes individual investors are reluctant to choose new investments when faced with a number of investment choices resulting in them doing nothing or sticking with old investments when they could realize more returns in new investments with higher returns. Such behaviour results in low than average returns on the investments. The study chose Great Zimbabwe to study whether employees at the institution differed from what Dean (2008) had observed.

The study objectives were therefore centred around examining whether individual staff members were rational investors,investigating the behaviour demonstrated by individuals when faced with a number of choices,analyzing the effect of experience on the status quo bias and to test the impact of status quo on investment decision making. This was done by interogating whether individuals' decisions followed economic theory of rationality.

The study looks at the way behaviour influences financial decision making processes. The paper is structured in such a way that it starts with an introduction in section1, which is followed by literature review in section 2, where rationality is discussed and its failure to influence financial decisions. The prospect theory is interogated where investors magnify losses more than they perceive the gains made. The rational choice theory is also discussed. A methodology section follows in section 3 which gives the details on how data was collected and the research design which is largely descriptive of the behaviour exhibited by investors. The results from the study and discussions are presented in section 4 and the last section conludes what the research deduced from the findings. References that were consulted will end the paper.

2. Literature Review

Status quo bias was defined by Polites and Karahanna (2012) as the tendency by individuals to disproportionately make decisions they are used to rather than switching on to new potentially superior decisions. Baker and Nofsinger (2002) suggest that the status quo is the tendency to do nothing when investors are faced with a number of choices.

2.1. The Rational Economic Man

Economic theory has it that the rational economic man can process information and arrive at best decisions. They argue that therational man only takes superior decisions after a lot of comparison and would only take additional risk if there is a reward associated with it. This has been argued to be the reason why people walk up and down streets comparing prices. Rationality relates to consistency in choosing the best alternative given a variety of alternatives and being satisfied with the choice. The rational behaviour would therefore lead to efficiency as only the best is chosen leading to Finance theory on Efficient Market Hypothesis. However in reality it appears as if the sometimes sub-optimal decisions are made largely because of the cognitive and emotional challenges that affect decision making processes. In Bounded rationality theory, Simon (1982) information is believed to be received differently resulting in sub-optimal decisions that do not lead to optimality.

The argument was further confirmed by Prospect theorist who explained how people choose between probabilistic alternatives. The theory emphasize that with a reference point people exaggerate losses than gains Kahneman and Tversky (1979) as shown in the diagram below.

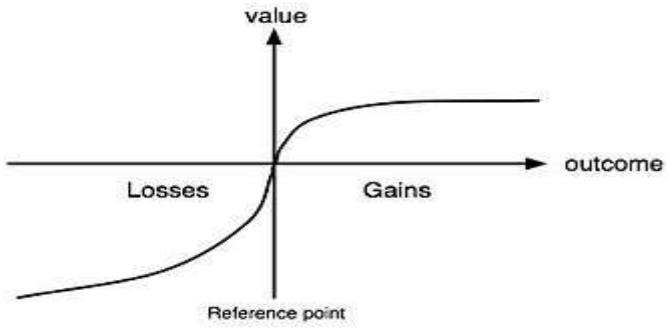

Figure 1: The Value Function

The value function explains that a loss of a dollar therefore would be much exaggerated than a gain of a dollar showing a steeper curve for losses than gains. The size of the utility derived from a gain is different from that from a loss resulting in inconsistencies with the basics of Utility theory.Vis (2011)suggests that when individuals are faced with gains they become risk averse and when there is potential for losses then they seek risks.

2.2. Studies in Status Quo Bias

In a study of Status Quo bias in data visualization, Esselman(2020) set to investigate wheteher status quo bias existed in data visualization. The study concluded that status quo bias existed when data visualization was present and also existed when it did not exist.Blasch & Daminato (2018) in their study concluded that the choices made by households in energy consumption are affected by staus quo bias resulting in costly consumption patterns. Consumers hold on to high old energy consuming gadgets or continue to replace old gadgets with the same high energy consuming ones because they want to maintain the status quo.

A study at Indiana University concluded that as choice set increase, the individuals' choice quality deteriorates and they prefer adopting previous positions, Ren (2014). In the United States of America a study on how an incumbent system affects new systems, perception and usage Polites & Karahanna (2012) found out that the incumbent system habits negatively affects the acceptance of a new system. The study further argued that inertia leads to decreased perception of ease of use of the new system. It would appear as this existence in status quo bias is also in developing countries across educational levels and age groups and thus the current study seeks to test the existence of this bias.

In another study carried out by Gubaydullina, Hein, and Spiwoks (2011) in Europe it was found out that interest rate forecasts were closely related to prevailing bond interest rates as bond market analysts appeared to be content with what they currently had. The descriptive measures of statistics used were found to be significantly below the actual interest rate changes exhibiting the existence of status quo bias. When there were more choices from which to choose from individuals studied by Dean (2008) in New York reverted to their initial position but with smaller sets of choices they were able to decide rationally. It is against this background that the current study wants to examine whether even with small sets of choices individuals behave rationally and optimize utility.

In Boston a study to test the status quo in decision making by Samuelson & Zeckhauser (1988)through experiments with decision alternatives was conducted and it was found that when it comes to real decisions, individuals prefer what they know and have experienced. The increase in the number of choices led to stronger signs of status quo bias. Nebel (2015) concludes that the decision to do nothing when faced with difficult choices was actually rational. No study has been carried out in developing countries and it is this gap in knowledge which the reseracher sought to fill with the current survey.

Choosing risky alternatives was found to be influenced by the switching costs associated with the choice, the perceived value and the similarity or dissimilarity of choices (Maltz & Romagnoli, 2017; Kim & Kankanhalli, 2009; Fleming, Thomas, & Dolan, 2010)

3. Data and Methodology

The methodology used was the descriptive survey design. The descriptive survey method was deemed appropriate because of the resources at the researcher's disposal. A short

questionnaire was designed on retirement investment which was sent on the work email of staff at Great Zimbabwe university for completion on line. The population consists of about 600 employees who are exposed to daily online communication. Employees who rarely go on internet like general hands, cleaners, cooks and security guards were excluded from the survey.

The collected data was then put on excel and imported to STATA version 13 where descriptive statistics and simple regression analysis was done on the responses given by employees to find the relationship between investment decisions and employee attributes. The model is given as:

$$f(i) = B_0 + B_1 X_i + B_2 X_2 \ldots\ldots\ldots \quad (1)$$

Gender was coded as 1 for females and 2 for males. Age ranged from below 30years to above 60 years with codes 1 up to 4.The level of education ranged from Ordinary level to post graduate and the codes were also 1 to 4. The number of years in service (experience) was also coded from 1 to 4 with 4 being the one with more years of service in the university. The choice of retirement fund was coded as 1 for Old Mutual, 2 for National Social Security (NSSA), 3 for First Mutual Life and 4 for Government Pension scheme. There was no order in the numbering but on categories. The reason for choosing a retirement fund was also coded from 1 to four with 1 for a fund with the highest benefits, 2 for a fund that seemed more reliable from the employee's perception, 3 for a fund they had dealt with before and 4 for a fund that had high risk and high return. The last variable which was the dependent variable looked at a scenario where employees were supposed to make a choice. Choice 1 was to invest their income in high risk high return investments, 2 was to invest in moderate risk investments, 3 was to invest in safe treasury bills and 4 was to invest in municipal bonds with a lower rate than treasury bills.

The variables were tested for multicollinearity and they were all found not to be highly correlated as shown in the table below.

Table 1: Multicollinearity Test Results

	gender	age	levelofeduc	experience	preference	reason	investment~n
gender	1.0000						
age	0.0225	1.0000					
levelofeduc	0.3273	0.1642	1.0000				
experience	-0.0939	0.5186	-0.1186	1.0000			
preference	0.0410	0.6201	-0.0262	0.0125	1.0000		
reason	0.1451	0.2399	0.2295	0.0709	0.2096	1.0000	
investment~n	-0.0797	0.1707	0.1600	0.3220	-0.2393	0.3468	1.0000

Tests for normality also showed a p-value of 0.0000 which is less than the alpha of 0.05 showing that at least one of the variables is not equal to zero. This was tested using the Dornik-Hansen test for normality.

```
. mvtest normality age levelofeduc experience preference

Test for multivariate normality

    Doornik-Hansen                chi2(8) =  856.094    Prob>chi2 =  0.0000
```

4. Fındıngs and Dıscussıons

From an estimated staff complement of 600 the response rate was 20.6% which could have been attributed to the short time period that was given to employees to respond. An adequate sample would have been 154 as advocated by the formula:

$$n = [z^2 * p(1-p)/e^2\ ]/[1 + (z^2\ * p(1-p))/e^2 \qquad (2)$$

The response rate of 124 out of an appropriate sample of 154 is thus adequate in the study giving a response rate of 80.5%.

Table 2: Response Rate by Gender

Gender	Freq.	Percent	Cum.
1	44	35.48	35.48
2	80	64.52	100.00
Total	124	100.00	

Source: STATA output

The results show that there were more male respondents than female respondents. Rational males are expected to be risk takers and so the gender balance may help in explaining the way employees make retirement investment decisions.

Table 3: Summary of Responses of Variables

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. summarize
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Variable	Obs	Mean	Std. Dev.	Min	Max
gender	124	1.645161	.4804055	1	2
age	124	2.290323	.5811986	2	4
levelofeduc	124	3.806452	.5936989	1	4
experience	124	2.290323	.5811986	1	3
preference	124	1.419355	1.012899	1	4
reason	124	2.129032	.6621932	1	4
investment~n	124	2.193548	.7400002	1	3

Source: STATA output

A mean of 2.29 means that most of the respondents were in the 30-50 age group which was response number 2. This shows that the respondents could exhibit more rational investment decisions because they are still middle-aged and able to take risks. A mean of 3.8 on the level of education meant that most respondents had gone past the graduate level with a score of 3. This would make them knowledgeable people in terms of choosing the best amongst competing alternatives. In terms of preference a mean of 1.419355 meant that most employees favoured Old Mutual pension fund which was also found to be the institution's chosen pension fund. This exhibited status quo bias as employees chose a fund they were currently using without much assessment of the returns involved. A mean of 2.1 was found on investment decisions where employees preferred investing in moderate risk investments for fear of losing out but trying to maintain the status quo.

Table 4: Summary of Investment Decisions on the Scenario Given

Investment Option	Freq.	Percent	Cum.
1	24	19.35	19.35
2	52	41.94	61.29
3	48	38.71	100.00
Total	124	100.00	

Source: STATA Output

In the table, scenario 1 was for those that would invest in high risk high return investments, 2 for those who would choose moderately low risk investments , and 3 was for those that would invest in safe treasury bills. The greatest percentage, 42%, wanted to play it safe and not lose much while almost 39% preferred risk free investing thus confirming the status quo bias amongst the employees.

4.2. Regression Results

The regression results show that most of the variables are not significant in explaining the decisions to invest by employees showing lack of rationality.

Table 5: Regression Results

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. reg investmentoption preference experience levelofeduc age gender
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Source	SS	df	MS		
Model	16.6736263	5	3.33472525	Number of obs	= 124
Residual	50.6812125	118	.4295018	F(5, 118)	= 7.76
				Prob > F	= 0.0000
				R-squared	= 0.2475
				Adj R-squared	= 0.2157
Total	67.3548387	123	.547600315	Root MSE	= .65536

investment~n	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
preference	-.3282383	.0887883	-3.70	0.000	-.5040633	-.1524134
experience	.1965654	.1438099	1.37	0.174	-.0882174	.4813482
levelofeduc	.1776422	.1158375	1.53	0.128	-.0517475	.407032
age	.4433038	.1873976	2.37	0.020	.0722056	.814402
gender	-.1559969	.1308443	-1.19	0.236	-.4151042	.1031104
_cons	.7743817	.4961928	1.56	0.121	-.2082152	1.756979

The Prob> F of 0.0000 helps conclude that at least one of the coefficients is not equal to zero. The model confirms that things like gender , level of education, number of years employed do not influence the investment choice made .The base outcome is picked as number 2 which was moderate risk investments because the employees avoid too much risk without weighing the benefits. It was also found that preference to status quo largely affects investment decision as shown by a p-value of 0.0000 and also age has some part to play as shown by a p-value of 0.020 compared to an alpha of 0.05.

5. Conclusıons and Recommendations

The study sought to investigate the existence of rationality in making investment decisions and whether the status quo bias influenced investment decisions that were made by employees of Great Zimbabwe in choosing retirement investments.The results suggests that even with educated male and females, the ability to make rational decisions is limited. When presented with alternative choices,employees stuck with alternatives that they were familiar with thereby confirming the findings of earlier researchers on status quo bias (Dean, 2008; Maltz and Romagnoli, 2017) The investors were found to stick to what they already had, fearing the losses that would come with choosing a new retirement policy. The findings of Fleming, Thomas and Dolan (2010); Kim and Kankanhalli (2009); and Maltz and Romagnoli (2009) were largely confirmed . When faced with difficult choices, employees resorted to choosing a pension fund that they were used to, which was their institution's pension house without assessing what other pension funds were offering. Employees seemed contended with the current pension house. It can therefore be concluded that status quo bias is rife in decision making on retirement investment amongst employees at Great Zimbabwe University.

The study recommends that, as part of human capital development and staff development in the university, employees should be workshoped on basic investment analysis techniques so that whenever they make investment decisions they consider the risk return tradeoffs. Investment analysis could also be introduced at lower levels especially in high school so that risk taking is embraced at early stages of one's life. The study also recommends that a larger

sample could be studied in future in order to get generalisable results. Such studies could also look at the influence of other biases in decision making.

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