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EFFECT OF INVESTMENT PORTFOLIO DIVERSIFICATION ON FINANCIAL PERFORMANCE OF RWANDAN PUBLIC COMPANIES: A CASE STUDY OF RSSB

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Abstract: **Investment portfolio diversification aims at reducing risk and increase returns. RSSB has been investing in many asset classes particularly real estates. This however has not proved to improve performance in the last few years. The reports show that profitability was very low and asset benchmarks were not reached. The aim of the study was to determine the effect of investment portfolio diversification on financial performance of Rwandan public companies: a case study of Rwanda social security board (RSSB)". The specific objectives of the study were; to determine the effect of real estate investments on financial performance of RSSB, to determine the effect of government securities investments on financial performance of RSSB and to assess the effect of cash and fixed deposits investments on financial performance of RSSB. The study employed a descriptive research design. The study population included the 538 employees of RSSB. Out of the target population; the researcher purposively selected a sample of 84 respondents that were consulted to answer the questionnaire. The study used both primary and secondary data. The primary data was collected using the questionnaire administered to 84 respondents, while secondary data was mainly found in the annual reports of RSSB from 2009 to 2014. However, some other secondary data especially theories on investment portfolio diversification and financial performance were got from text books, journals, newspapers, websites and other electronic references. After collection, data was edited, coded, recorded and tabulated and then analyzed by using SPSS. The study used a regression to estimate the model with ROA/ROI as the dependent variable and asset diversification as the independent variable.**

Keywords: **investment portfolio diversification, financial performance.**

1. INTRODUCTION

An investment is the current commitment of resources for a period of time in the expectation of receiving future resources that will compensate the investor for the time the resources are committed, the expected rate of inflation and the risk – the uncertainty of future payments. Thus, investment may also be defined as the change in capital stock during a period. Investment is the sacrifice of current consumption for future consumption whose objective is to increase future wealth. The sacrifice of current consumption takes place at present with certainty and the investor expects desired level of wealth at the end of his investment horizon. (Trygve, 2006).

Institutions' investors anticipate future cash needs, and expect that their earnings in the future will not meet those needs. The Return on investment is a measure of the growth in wealth resulting from that investment (UNCTAD, 2003). Besides, investment is driven by three basic needs: income, capital preservation and capital appreciation. For income, investments can be made in the hope of providing future income. Usually investors want income to begin in the immediate future. For capital preservation, investments are made to preserve capital, or the original value (Trygve, 2006). The aim is to have the value of the invested money grow at a faster rate than inflation so there is a positive return after the effects of taxes and inflation. Typically, investments made for capital appreciation include some risk exposure to get the desired return. (Kose et al., 2003). Optimal investment implies that on profit margins, the firm must be indifferent between investing today and

transferring those resources to tomorrow, as long as appropriate discount rate is identified to discount the payoff in the next period (Trygve, 2006). Investment portfolio is a Pool of different investments by which an investor bets to make a profit while aiming to preserve the invested (principal) amount. These investments are chosen generally on the basis of different risk-reward combinations: from 'lowrisk, low yield' (gilt edged) to 'high risk, high yield' (junk bonds) ones; or different types of income streams: steady but fixed, or variable but with a potential for growth (Trygve, 2006).

In particular, the interactions among fixed investment, uncertainty, and portfolio choice remain an unexplored field of research. However, the portfolio choice problem and the optimum allocation of resources under multiple investment options is not a new topic in the economics literature. One critical problem faced by many investors in Africa is high investment-related fees; causing many investors to do worse than if they were to hold a well-diversified, ultra-low-cost portfolio for the long term. Tornell (2010). The role of investment portfolio and product diversification strategy as a catalyst for competitive strategies is well established in the literature (Pawasker, 1999). This role becomes obvious in terms of the benefits diversification in enhancing the performance of firms. These benefits include substantial increase in market power, creation of synergy in market operations, and reduction in the probability of bankruptcy and minimization of risk (Kotler, 2003).

2. STATEMENT OF THE PROBLEM

According to the International Labor Organization emphasizes four basic principles that should rule investment of social security funds; safety, yield (return), liquidity and social and economic utility (Cichon, et al., 2004). However, regardless of Cichon et (2004) observation, the RSSB investment portfolio is dominated by three assets categories namely: real estate, bills and bonds and equity with more than 70% of the total portfolio. The main point is that many of the pension funds' investments, including real estate and equity have not been financially viable within the five years (2009-2014). The rate of return on real estate, whose value represents 37% of the total portfolio value, generated 1.1%, the lowest return compared to other assets in the portfolio (RSSB Annual investment report, 2015). In addition, the rate of return on equity, which represents 37.6% of the wealth invested versus 30% maximum set by policy benchmark, is equal to 3.2% - and thus also relatively low. Furthermore, in 2015, the real estate was still the class of assets with the largest weight in the portfolio and this prevented the RSSB from achieving a "minimum investment return of 8.5% for the three-year average of investment return for the years 2012 – 2015).

The Actuarial Report highlighted other financial problems affecting the pension scheme: Pension Plaza buildings built outside of Kigali are built in the same way irrespective of the housing market in the specific area and the financial capacity of the targeted clients in the same area. Second, the pension scheme fund bought land for development purposes for a total value of $54,176,156 in Gaculiro, Kinyinya and Rugenge (as per annual investment report for 2013/2014). However, this land has been left idle and unexploited for over four years. Third, irrespective of poor returns generated by real estate investments, RSSB pension scheme has continued to purchase large buildings in 2013/2014. The study deduced that diversification has a positive effect on the financial performance of public companies of Rwanda. According to scholar's understanding, no research had been conducted on how portfolio diversification impacts financial performance of public companies in Rwanda. Hence, the study sought to fill this knowledge gap by seeking answers to this research question; what is the effect of investment portfolio diversification on the financial performance of Rwandan public companies?

3. OBJECTIVES OF THE STUDY

3.1 General objective:

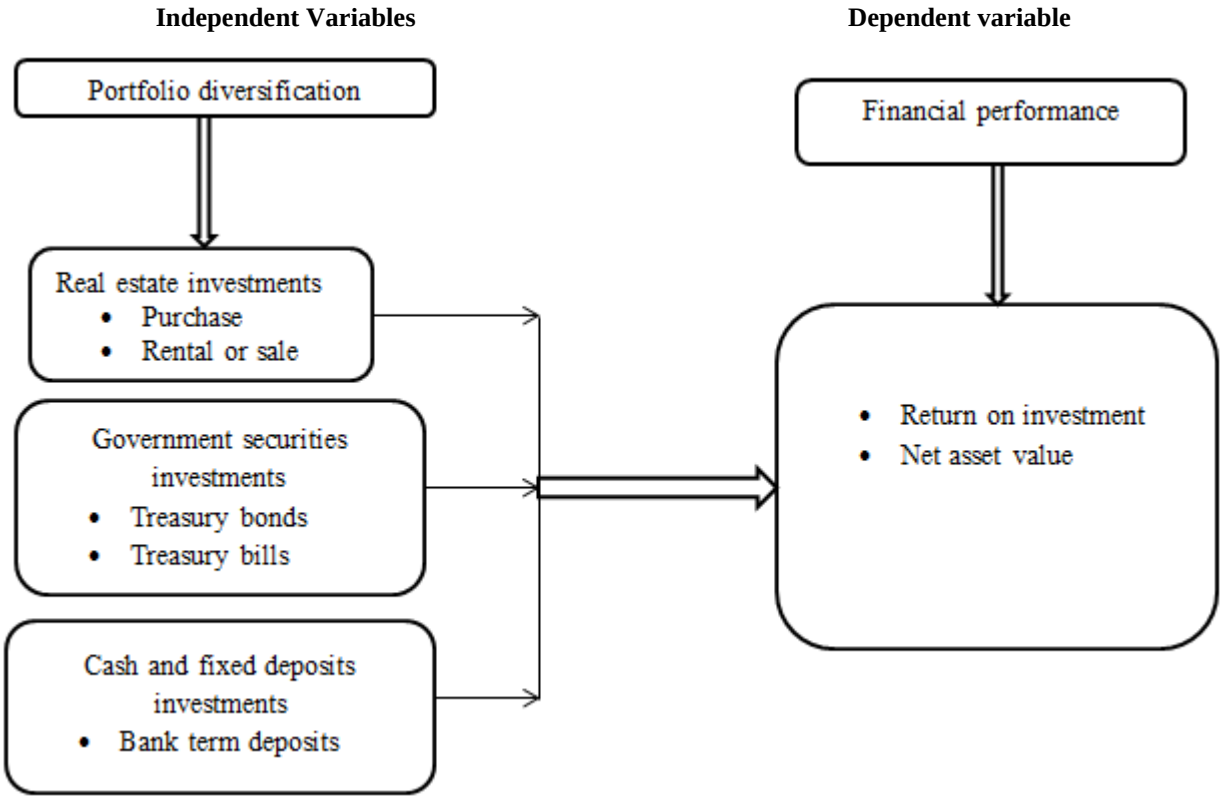
The main objective of this study was to determine the effect of investment portfolio diversification on financial performance of public companies in Rwanda.

3.2 Specific Objectives:

1. To determine the effect of real estate investment on financial performance of RSSB;
2. To determine the effect of government securities investment on financial performance of RSSB;
3. To assess the effect of cash and fixed deposits on financial performance of RSSB;

4. CONCEPTUAL FRAME WORK

The conceptual framework interlinks Independent variable and dependent variable as follows:



5. RESEARCH METHODOLOGY

5.1 Research design:

The study employed a descriptive research design. The study employed correlation research as it tries to establish the relationship between investment portfolio and financial performance. It also employed a descriptive research design as it used descriptive statistics to present data in form of tables, charts and graphs. This study adopted both quantitative and qualitative approaches.

5.2 Population:

Amin (2005) define population asa set of cases from which a sample is drawn and to which a researcher wants to generalize. The targeted population for this study consisted employees of RSSB from the finance department and real estate investment unit.

5.3 Sample size:

A sample size is a finite part/subset of the statistical population whose properties are studied to gain information about the population. Yamane (1967) provides a simplified formula to calculate sample sizes. He left this equation: $n = \frac{N}{1+N(e)^2}$) used to calculate the sample size (n) given the population size (N) and a margin of error (e). In this case N= 538 taking the confidence level of 90% that is with a permissible error of 10%, e=0.1. Therefore, Therefore, $n = \frac{538}{1+538*(0.1)^2}$ this gives $\frac{538}{1+538*0.01} = \frac{538}{1+5.38} = \frac{538}{6.38}$ =84 respondents.

5.4 Data Collection Instruments:

5.4.1. Questionnaire:

Questionnaire is the survey instrument intended for use in mailed of self-administered surveys. According to Amin (2005) a questionnaire is defined as« set of written questions which calls for responses of the part of the client, may be either

self-administrated. During this study, the researcher designed the questionnaire and administered them to 84 employees of RSSB. The researcher used questionnaires to seek deep information on the study variables.

5.4.2. Documentation:

According to Ngechu, M. (2004), a document study is the care full treading, understanding and analysis of written documents for some purpose other than social researcher. During the research, the researcher consulted annual reports of RSSB. Besides, the researcher also read text books, journals, newspapers, and websites that contain the information on RSSB investments.

5.5 Data analysis:

In this study, quantitative data was collected on financial performance of RSSB and Diversification of assets. Then analyzed through descriptive means and inferential statistics. Statistical Package for Social Sciences (SPSS V. 21.0) was the tool that aided in the analysis. The research findings were presented using tables and figures.

6. RESEARCH FINDINGS

6.1: Descriptive analysis:

Table 1: Real estate investment and Financial Performance of RSSB

Real estate investment and Financial Performance of RSSB	N	Mean	Std. Deviation
Good decision of real estate investment helps to increase the profitability of RSSB	84	3.8426	0.1145
RSSB get better returns on real estate investments because of effective investment portfolio diversification	84	4.8664	0.3949
The increase of real estate investments by RSSB leads to better returns	84	4.7942	0.4965
Effective real estate investment is a way for customer satisfaction and hence good financial reputation of the RSSB	84	4.1861	0.1642
Adequate purchase of buildings is a tool for competitive advantages and hence large market share	84	4.3935	0.1321
Effective real estate investment portfolio is a strategy for customer retention	84	4.7865	0.1948
Effective real estate investment influences the liquidity ratio that help to serve RSSB customers on demand	84	4.5942	0.2965

Source: Primary data (2018)

The results in the table above show that respondents have strongly agreed with the statements showing the effect of real estate investment on the financial performance of RSSB. It is based on their respective mean values that are all between 4.5 and 5 and are rounded off to 5. The mean of the statements are namely: Good decision of real estate investment helps to increase the profitability of RSSB (mean value: 4.8664), RSSB get better returns on real estate investments because of effective investment portfolio diversification (mean value: 4.7942); The increase of real estate investments by RSSB leads to better returns (mean value 4.7865), Effective real estate investment is a way for customer satisfaction and hence good financial reputation of the RSSB (mean value: 4.5942). In addition, the results show that the values of the standard deviation for each of the above statements are namely: 0.3949; 0.4965; 0.1948 and 0.2965 respectively. Given that the standard value is less than 0.5, it means that the respondents 'answers were homogeneous that is closer to each other.

Besides, the findings in the above table show that respondents have in general agreed with the remaining statements as their respective mean values are between 3.5 and 4.5 that are rounded off to become 4. Namely: Adequate purchase of buildings is a tool for competitive advantages and hence large market share (whose mean value is 3.8426); Effective real estate investment portfolio is a strategy for customer retention (mean value: 4.1861); Effective real estate investment influences the liquidity ratio that help to serve RSSB customers on demand (mean value: 4.3935). Besides the values of the standard deviation of each of the above statements namely: 0.1145; 0.1642; 0.1321; and 0.2341 respectively show that respondents' answers were homogeneous. The fact those respondents' answers were homogeneous on the statements showing the impact of real estate investment on performance of RSSB may be due to the fact that respondents were aware on the contribution of effective investment portfolio based on their experience within RSSB. In addition, the results from questionnaire support the findings from financial reports of RSSB as it was showed in the proceeding sections.

Table 2: Government securities investments and financial performance of RSSB

Government securities investments and financial performance of RSSB	N	Mean	Std. Deviation
Good decision of government securities investment helps to increase the profitability of RSSB	84	3.8426	0.0145
RSSB get better returns on government securities investments because of effective investment portfolio diversification	84	4.9935	0.3324
The increase of investments in treasury bonds by RSSB leads to better returns	84	4.9896	0.0949
Effective treasury bills investment is a way for customer satisfaction and hence good financial reputation of the RSSB	84	4.8233	0.1205
Adequate government securities investment is a tool for competitive advantages and hence large market share	84	3.7807	0.3742
Effective government securities investment is a strategy for customer retention	84	4.5935	0.4324
Effective government securities investment influences the liquidity ratio that help to serve RSSB customers on demand	84	4.3896	0.3949

According to the findings above, the mean values for the statements are: 4.9935, 4.9896;4.8233 and 4.5935 respectively from 1-4. The results reveal also that respondents have generally agreed Adequate government securities investment is a tool for competitive advantages and hence large market share also can influence performance based on its mean value equal to 3.8426, as well as effective government securities investment as a strategy for customer retention based on its mean value of 3.7807; Effective government securities investment influences the liquidity ratio that help to serve RSSB customers on demand 4.3896; In addition, the values of standard deviation show that respondents' answers were somehow homogeneous because they are less than 0.5.

Table 3: Cash and fixed deposits investments and financial performance of RSSB

Cash and fixed deposits investments and financial performance of RSSB	**N**	**Mean**	**Std. Deviation**
Good decision of cash and fixed deposits investment helps to increase the profitability of RSSB	84	4.5942	0.2965
RSSB get better returns on cash and fixed deposits investments because of effective investment portfolio diversification	84	4.1861	0.3949
The increase of cash and fixed deposits investments by RSSB leads to better returns	84	4.7942	0.4965
Effective cash and fixed deposits investment is a way for customer satisfaction and hence good financial reputation of the RSSB	84	4.8664	0.1642
Adequate cash and fixed deposits investment is a tool for competitive advantages and hence large market share	84	4.3935	0.1321
Effective cash and fixed deposits investment is a strategy for customer retention	84	4.7865	0.1948
Effective cash and fixed deposits investment influence the liquidity ratio that help to serve RSSB customers on demand	84	3.8426	0.1145

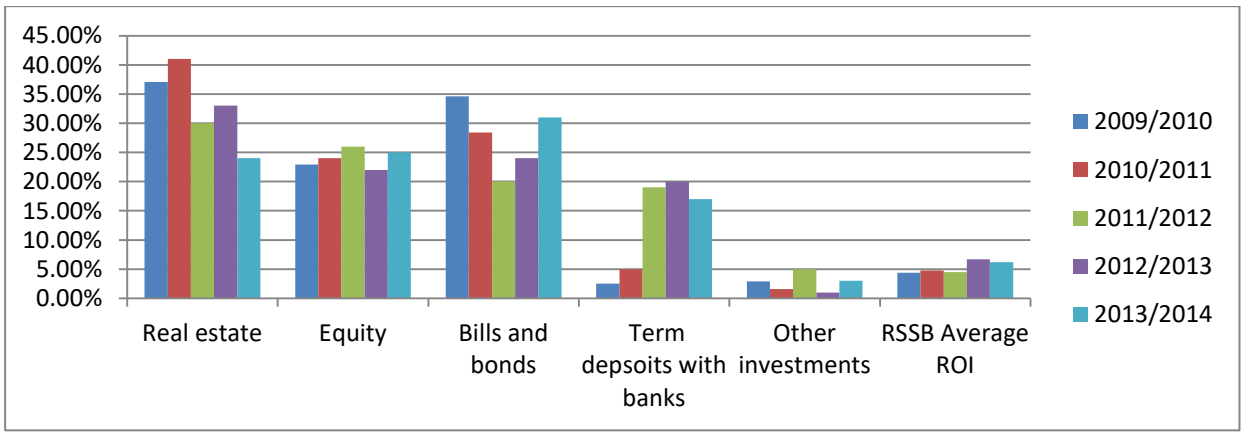
Source: Primary data (2018)

The results in the table above show that respondents have strongly agreed with the four statements showing the impact of Cash and fixed deposits investments on the performance of RSSB. It is based on their respective mean values that are all between 4.5 and 5 and are rounded off to 5. These statements are namely: Good decision of cash and fixed deposits investment helps to increase the profitability of RSSB(mean value: 4.5942), RSSB get better returns on cash and fixed deposits investments because of effective investment portfolio diversification (mean value: 4.1861); The increase of cash and fixed deposits investments by RSSB leads to better returns(mean value 4.7942), and effective cash and fixed deposits investment is a way for customer satisfaction and hence good financial reputation of the RSSB (mean value: 4.8664). In addition, the results show that the values of the standard deviation for each of the above statements are namely: 0.2965; 0.3949; 0.4965 and 0.1642 respectively. Given that the standard value is less than 0.5, it means that that the respondents 'answers were homogeneous that is closer to each other.

Table 4: RSSB Portfolio composition and the average return on Investment for a five-year period, 2009-2014

Fiscal year	Real estate	Bills and bonds	Term deposits with banks	RSSB Average ROI
2009/2010	37.10%	34.60%	2.50%	4.39%
2010/2011	41%	28.40%	5%	4.76%
2011/2012	30%	20%	19%	4.50%
2012/2013	33%	24%	20%	6.70%
2013/2014	24%	31%	17%	6.20%

Source: RSSB investment report of 2009/2010; 2010/2011; 2011/2012; 2012/2013; 2013/2014



Source: Authors' analysis from RSSB portfolio trend analysis

Figure 1: RSSB Portfolio composition and the average return on Investment for a five-year period, 2009-2014

In general, the asset allocations and the shares of the assets invested in fixed- and non-fixed-income securities can be substantially different across different countries. The table 4.5 and the corresponding Figure1 show the portfolio components in the fiscal year 2009-2010. Non-fixed income investments represented 60% of total assets, real estate and equity counted for 37.1% and 22.9% respectively. Bills and bonds also had a large portion in the portfolio, 34.6%. The composition of the portfolio does not significantly change in 2010-2011, compared to the previous fiscal year. However, there is an increase in the percentage of the composition in the portfolio for different assets; 4.1% in real estate, 1.2% in equity, 3.0% in fixed deposit and 4.1% in corporate loans. Conversely, a significant decrease is noticeable on bills and bonds, 6.8% and a slight decrease of 0.8% on mortgage loans. The year 2011-2012 is not significantly different from the previous years in terms of portfolio composition. Three assets are still dominating; real estate, bills and bonds and equity with more than 70% of the total portfolio. In comparison to the three previous years, the rate of return on the investment increased. The rate of return on the whole portfolio was equal to 6.7%, with an increase of 2.2% compared to the previous year.

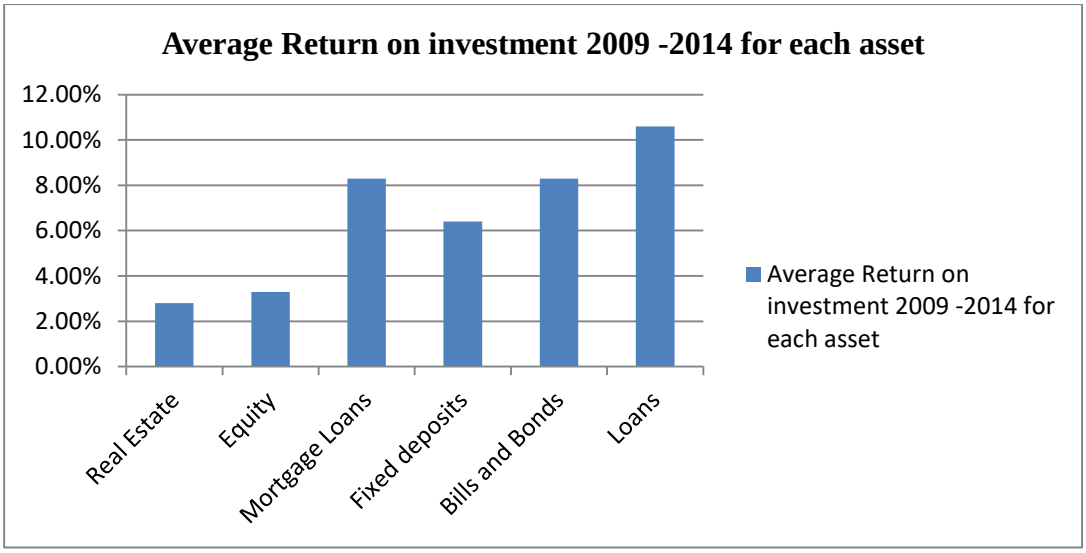
This increase is largely due to the increased dividends paid by three companies, namely BK, BRALIRWA and BRD. In addition, the fund sold some of the shares previously held in CIMERWA, and buildings such as Grand Pension Plaza and Kicukiro Pension Plaza were fully completed and started generating rental fees. Interest on treasury bonds was alsoreceived. If we compare the fiscal years 2012/2013 and 2013/2014, the portfolio composition does not show any major changes, and all assets meet their respective benchmarks set in the Investment Policy Statement for the Pension Scheme Fund which is implemented from July 2012 to June 2015, (RSSB investment annual report,2015). In general, three areas that have been dominating the RSSB investments portfolio are Real estates, Bonds and bills as well as equity, but from the fiscal year 2011/2012 bank term deposits with also started holding a significant portion of the total portfolio based on low risks and medium return.

Table 5: Average Return on Investment for a five-year period, 2009-2014

Investment Assets	Average Return on investment 2009 -2014 for each asset
Real Estate	2.80%
Equity	3.30%
Mortgage Loans	8.30%
Fixed deposits	6.40%

Bills and Bonds	8.30%
Loans	10.60%
Total Portfolio	5.30%

Source: Authors' analysis from RSSB portfolio trend analysis



Source: Authors' analysis from RSSB portfolio trend analysis

Figure 2: Average Return on Investment for a five year period, 2009-2014

One of the return objectives set in pension fund three year investment policy statement is to achieve a "minimum investment return of 8.5% (the three-year average of actuarial investment return assumptions for the medium cost basis for the years 2012 – 2015) over a three-year rolling period" (RSSB Investment Policy Statement for Pension Scheme Fund, 2012). Table5 shows that this goal has not been achieved. The average returns are low, with the average portfolio return on investment standing at 5.3% and 6.4% for the period including the last five years and the last two years, respectively. Investments in corporate loans nevertheless outperform others, with an average rate of return of 10.6%. Loans, bills and bonds, fixed deposits and mortgage loans have high return on investments, while real estates and equity have low returns compared to others.

Table 6: Average Real return on Investment for a five-year period, 2009-2014

	2009-2010			2010-2011			2011-2012			2012-2013			2013-2014		
Investment Assets	Return on investment	Inflationrate	RealReturn onInvestment	Return on investment	Inflationrate	RealReturn onInvestment	Return on investment	Inflationrate	RealReturn onInvestment	Return on investment	Inflationrate	RealReturn onInvestment	Return on investment	Inflationrate	RealReturn onInvestment
Real Estate	1.1%	8.2	-7.1%	4.6%	8.3	-3.7%	2.9%	5.9	-3.0%	3.3%	3.7	-0.4%	1.9%	1.4	0.5%
Equity	3.2%	8.2	-5.0%	0.5%	8.3	-7.8%	3.3%	5.9	-2.6%	4.8%	3.7	1.1%	4.6%	1.4	3.2%
Mortgage Loans	11.9%	8.2	3.7%	8.9%	8.3	0.6%	5.9%	5.9	0.0%	4.6%	3.7	0.9%	10.2%	1.4	8.8%
Fixed deposits	3.4%	8.2	-4.8%	4.7%	8.3	-3.6%	3.9%	5.9	-2.0%	9.5%	3.7	5.8%	10.3%	1.4	8.9%
Bills and Bonds	8.2%	8.2	0.0%	8.0%	8.3	-0.3%	8.2%	5.9	2.3%	10.1%	3.7	6.4%	6.8%	1.4	5.4%
Corporate	11.1%	8.2	2.9%	2.7%	8.3	-5.6%	12.7%	5.9	6.8%	14.1%	3.7	10.4%	12.6%	1.4	11.2%
Total Portfolio	4.39%	8.2	-3.8%	4.76%	8.3	-3.5%	4.5%	5.9	-1.4%	6.7%	3.7	3.0%	6.22%	1.4	4.8%

Average real return for five years (2009-2014) = 5.3% -5.5% = -0.2%

Source: Françoise (2015)

The pension scheme investment policy statement states that the *real* rate of return must be positive. Table 3 shows that the objective was achieved in the last two years in almost all assets apart from real estate (in 2012-2013). However, the average real rate of return for the past five years is negative and equal to-0.2%. Table 2 and Table 3 show that corporate loans outperform the benchmark although they do not take the biggest proportion of the total portfolio composition like real estate and equity. Mortgage loans earned higher returns than real estate and equity investments in the last five years. The impact of the loans performance on the overall portfolio performance is however small, as the fraction of loans over total assets has never exceeded 2.7%. It is worthwhile pointing out that in a defined benefit plan; the risk of funding is borne by the sponsor. In case of the Rwandan pension scheme fund, the funding risk is borne by the government of Rwanda, which will thus be expected to intervene if the funds available become insufficient to meet the fund's liabilities (RSSB, Investment Policy Statement, 2012).

6.2 Regression Analysis:

Impact of portfolio diversification (real estate, equity, bills/bonds and bank term deposits) on ROI:

In this study, multivariate regression was done to establish the relationship between investment portfolio diversification and financial performance of RSSB. The analysis was undertaken at 5% significance level. Initially, the study sought to establish variation in financial performance which was explained by predictor variables under study by use of coefficient of multiple determinations (R2). The findings are tabulated below. The part below shows the study findings on the impact of investments portfolio on ROI using multiple regression analysis. The analysis here was made using SPSS.

Table 7: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.948[a]	.899	.799	.96902
a. Predictors: (Constant), RSSB investments in Term Deposits with banks, RSSB investments in Equity, RSSB investments in Bills and Bonds, RSSB investments in Real Estates				

The results in the table above show that the R-the correlation coefficient equal to 0.948 showing a strong relationship between investment portfolio and return on investments of RSSB, a measure of financial performance. The R squared which is the coefficient of determination of 0.899. In statistics the R square tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table, the value of R squared indicates that 89.9% of the change in ROI of RSSB is explained or determined by the changes investment portfolio.

Table 8: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.548	4	8.387	8.932	.028[a]
	Residual	3.756	4	.939		
	Total	37.304	8			
a. Predictors: (Constant), RSSB investments in Term Deposits with banks, RSSB investments in Equity, RSSB investments in Bills and Bonds, RSSB investments in Real Estates						
b. Dependent Variable: Average Return on Investments of RSSB						

As per the table above, the significance value is at 0.028^a that is less than 0.05. Therefore, the regression model is statistically significant in predicting how investment portfolio diversification affects the financial performance of RSSB. The F critical 5% level of significance was 3.23. Because F computed is 8.932 which is greater than the F critical, this implies that the whole model was significant

Table 9: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.802	7.980		-.727	.508
	RSSB investments in Real Estates	-.004	.100	-.018	-.043	.967
	RSSB investments in Equity	.109	.093	.248	1.164	.309
	RSSB investments in Bills and Bonds	.236	.129	.760	1.831	.141

	RSSB investments in Term Deposits with banks	.168	.107	.567	1.575	.190
a. Dependent Variable: Average Return on Investments of RSSB						

From the data in the above table the established regression equation was ROI = -5.802 -0.004 Real estate + 0.109 Equity+0.236 Bills/Bonds+0.168 Bank term deposits.

From the above regression equation, it was revealed that investments in real estate made by RSSB has a negative impact on its ROI as it has a negative slope/coefficient -0.004), meaning that the higher the investments in real estate, the lower the ROI and vice versa. This coefficient also indicates that a unit increase in investments in real estate would lead to a decrease in ROI by 0.004. The negative impact is due to low occupational rate of the buildings constructed by RSSB across the country. On the other hand, the results show that there is a positive correlation between other variables and ROI, given the positive coefficient equal to 0.109 for equity meaning that if RSSB increases investments in equity by one unit its ROI also will increase by 0.109 and vice versa. Likewise, the results show a positive coefficient for bills and bonds that is equal to 0.236. This means that there is a positive correlation between volume of investment in bills and bonds and ROI of RSSB. That is the bigger the investment of RSSB bills and bonds, the higher the ROI and vice versa. The coefficient for Bank term deposits is 0.168 meaning that unit increase of RSSB investment in bank term deposits would lead to an increase in ROI of RSSB by a factor of 0.168. While the constant -5.802 in the model means that holding zero investments in the above portfolio namely: real estates, bonds/bills; bank term deposits and equity in RSSB, the ROI would remain -5.802. The figures below show the regression lines of ROI subject to each independent variable.

6.3 Discussions:

The study found that the investment in real estates of RSSB has a negative impact on RSSB average ROI. The study found that the rate of return on real estate, whose value represents 37% of the total portfolio value, generated 1.1%. It is the lowest return compared to other assets in the portfolio. This finding supports the findings of Andonov, Kok, &Eichholtz (2013) who analyzed a global perspective on pension fund investments in real estate through data from CEM Benchmarking Inc. of Canada, one of the global largest database available for pension fund investment. The study reveals that US pension funds' investments in real estate perform relatively poorly compared to their peers in Canada, Europe, and Australia and New Zealand. The weaker performance is due to the low gross rates of return and the high maintenance costs. U.S. pension funds' real estate investments also underperform their own set benchmarks typically.

The study also found that over years the RSSB management has been decreasing the share of investments in real estate due to its poor performance in terms of low ROI, this concurs with Cichon et al. (2004) findings who noted that as the rates of return of investments in real estate are relatively low, particularly in developing countries, private funds and insurance companies have a tendency of holding a limited fraction of their portfolio in that form. Even the Danish pension fund invests between 5% and 7% of its assets in real estate. This system has been embraced by many pension funds, mainly in developing countries, in order to support national developments. The study however revealed that there is positive relationship between other portfolio investments of RSSB used in this study namely investments in government treasury bills and bonds; and investments in bank term deposits. The study also found that the major investments that dominate in RSSB are real estates, equity, bonds/bills, and bank term deposits.

This supports the findings of (Holzmann, 2009) who conclude that treasury bills and bonds are an appealing alternative, given their low risk. The ranking of the risks associated with these two types of loans may however be reversed in countries subject to persistent fiscal crises, constant and high inflation, if the level of sovereign debt reaches a level that entails a significant risk of sovereign default. Real estate investments are usually included in the portfolios because they hedge against inflation, deliver steady cash flows in the form of rental income and contribute to portfolio diversification (Andonov, Kok, &Eichholtz,2013).

These findings reflect those of Andonov, Kok, &Eichholtz, (2013) who analyzed the asset allocation of global pension fund industry in 2009 and found that it is dominated by stocks and bonds; the importance of alternative assets has been increasing in recent years. “In 2009, stocks, bonds, and cash accounted for 47.1%, 36.9%, and 2.5% of pension fund portfolios, respectively, while the remaining 13.5% were invested in alternative assets. Real estate is the most important alternative asset class, with an average allocation of 5.1% in 2009, followed by private equity (3.6%), hedge funds (2.9%), and other alternative assets (1.8%)”.

The study also found that determinants of investments portfolio and financial performance of RSSB include: Regulatory framework, political influence; the market structure in terms of degree of competition; Monetary policy/interest rates; policy makers; the perceived benefits/expected profits from the investment; Equity returns; Company size and the managerial skills and corporate governance of RSSB. This supports the findings of DeMonte (1995) there are various elements that influence the financing of a pension scheme and its financial performance. He identified three categories of relevant factors, namely the operations of the plan - including the fraction of the workforce covered, its age, contributions and benefits,

the external economic environment - the inflation rate, interest rates, returns on various classes of investment, and the applicable financing policies, namely the allocation of assets among investment classes and the actuarial methods used to determine annual contribution to the plan. Besides, (Cichon, etal., 2004) argued that further important factor is the demand for business or industrial spaces, apartments and offices, largely determined by the pace of economic development. Based on the study findings the researcher stated that there is a significant relationship between investment portfolio diversification (investment in Real estates, equity, bank term deposits, and Treasury bonds/bills) and Return on investments of RSSB; while the the all preset objectives were achieved and the study concludes that there is strong relationship between investment portfolio diversification and ROI of RSSB.

7. CONCLUSIONS

Based on the study findings, the researcher has been able to achieve the preset objectives and concluded that the investment portfolio diversification has a significant impact on the financial performance of RSSB. The study employed a combination of correlation research design and descriptive research design. The study population included the employees of RSSB. Out of the target population; the researcher purposively selected a sample of 84 respondents that were consulted to answer the questionnaire.

The study employed both primary and secondary data. The primary data were collected using the questionnaire administered to 84 respondents, while secondary data was mainly found in the annual reports of RSSB from 2009 to 2014. However, some other secondary data especially theories on investment portfolio and financial performance were got from text books, journals, newspapers, websites and other electronic references. During analysis the study employed SPSS and Excel worksheet; most importantly the researcher used linear regression analysis and descriptive statistics for easy interpretation and analysis. The study found that the investment in real estates of RSSB has a negative impact on RSSB average ROI. The study however revealed that there is positive relationship between other portfolio investments of RSSB used in this study namely investments in equity; investments in government treasury bills and bonds; and investments in bank term deposits. The study also found that the major investments that dominate in RSSB are real estates, equity, bonds/bills, and bank term deposits.

The study found that RSSB's investment portfolio has recorded notable increase. RSSB's investment portfolio is mainly composed of; Real estate projects (22.0%); Bank term deposits (35.7%) Corporate bonds, loans (1.8%); Treasury bonds/bills (21.4%); Foreign as well as local equity (18.6%); and Mortgage (0.5%). The study found that the rate of return on real estate, whose value represents 37% of the total portfolio value, generated 1.1%. Hence, the study also found that over years the RSSB management has been decreasing the share of investments in real estate due to its poor performance in terms of low ROI. On the other hand, the study revealed that policy makers, regulators, market structure and expected benefits from investment are other key factors that influence the financial performance and investment portfolio of RSSB.

8. RECOMMENDATIONS

Based on the study findings, the researcher formulated the following recommendations:To the management of RSSB,there is need to continue increasing the investment diversification in portfolio that yield higher returns with low or moderate risks so that its financial performance can keep increasing.

There is also a need for RSSB to have solid organization structure and continuous trainings for its staff and management. Organization structure and adequate trainings will influence their investment portfolio choice which impact on their financial performance. Good organization structure will allow for better investment decision in the company that manages their investment and thus increasing the financial performance.

There is need to increase the volume of investment portfolio in portfolio like equity, bank term deposits, bills and bonds, mortgage lions and to reduce portfolio in real estate's especially those of big houses that are constructed without a marketing study as their occupational rates are very low. To Policy makers and regulators, the researcher suggested that

before setting any policy should first assess whether the new policy is fair for the companies to stay competitive and profitable in the market. Besides, regulators should ensure that laws and regulations for pension companies do not harm customers. This is because the study found that regulators mostly influence the investment portfolio and performance of RSSB.

Areas for further research:

Because the current study did not cover all areas of investment portfolio and financial performance of public companies the researcher suggested the following areas to be studied on: A study can be designed to find out the impact of country economic growth on performance of public companies in Rwanda. This will give an indication on the effects of country economic growth on performance of investment companies in the country. The study also recommends a study on the effects of capital market on the financial performance of investment companies listed in Rwanda Stock Exchange. The study sought to determine impact of investment portfolio on financial performance of public companies, there is need for a similar study to be replicated on private investment companies.

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