

# Portfolio Management Strategies and Financial Performance of Investments Companies in Rwanda: A Case Study of Rwanda Investment Group

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**Abstract:** This study explored how portfolio management strategies influence the financial performance of investment companies in Rwanda, with Rwanda Investment Group (RIG) as the case study. It emphasized that effective portfolio construction, selection, and assessment provide optimal returns for a given level of risk while mitigating investment risks. The research aimed to identify strategies applied by RIG, assess their impact on financial performance, and examine challenges encountered in portfolio management between 2012 and 2014. A descriptive survey design was employed, combining qualitative and quantitative methods. The target population consisted of 68 RIG employees, from which a purposive sample of 31 staff was selected. Data were collected through questionnaires and analyzed using descriptive and content analysis, as well as inferential statistics, particularly Pearson's correlation. Results were presented in tables, graphs, and narratives. Findings revealed that internal control systems significantly influence RIG's financial performance, particularly return on equity and investments. Implementation of activities and feedback mechanisms from financial control systems were identified as crucial benefits, strengthening the management of financial statements and operational systems. However, the study also established that challenges in portfolio management directly affect returns, highlighting the importance of addressing these issues promptly. The study concluded that portfolio management strategies directly impact RIG's returns on equity and investments. Specifically, diversification of investments was found to enhance returns positively, while capital structure had a significant effect on equity returns. Internal control systems emerged as a key factor in mitigating portfolio management challenges, thereby improving financial outcomes. Recommendations included the adoption of efficient portfolio management techniques across companies under RIG, coupled with effective asset allocation systems guided by data-driven decision-making. Such measures would ensure wise financing and investment decisions, strengthen portfolio performance, and guarantee sustainable financial growth.

**Keywords:** Management Strategies, Portfolio, Financial Performance, Investments Companies, Rwanda Investment Group.

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## I. INTRODUCTION

Several claims concerning option performance strategies have been made in tandem with the quick expansion of the usage of options in portfolio management. Many investors think that using various options methods can improve the performance of their pure-stock portfolios. The two most widely used tactics are protective-put purchasing and covered-call writing. In theory, there is no way to know for sure which choice approach is superior. According to the efficient market idea, rewards should rise in tandem with risk. Issues with the consistency of performance measurement may also arise when options are

used in stock portfolios. Holding one asset to lower the risk of holding another is a financial transaction known as hedging. Typically, a hedge is used to offset price risk caused by changes in the financial markets' condition. In this way, the development of financial derivatives like forwards, options, futures, and swaps makes it simple for hedgers to use them to reduce risk. But instead of hedging, a lot of portfolio managers utilize these derivatives to speculate, which raises risk. According to the broad framework proposed by Hakanson et al. (2018), adding options improves the overall efficiency of financial markets by giving investors more options for investments in terms of hedging and insurance, but it does not create any opportunities for arbitrage. Numerous studies compare the performance of unhedged and hedged positions with options, or assess the performance of different hedged positions. When Dukes (2021) looks at the success of option writing and buying strategies, such as using in-the-money (ITM) and out-of-the-money (OTM) options, they find that covered option writing increases portfolio mean returns and decreases portfolio standard deviation.

They also come to the conclusion that, in comparison to an unprotected stock position, writing calls or purchasing puts reduces risk and reward. Backstaber and Clarke (1984) assess the effectiveness of pure-stock, covered-call, and protective-put strategies using simulation approaches. Because put-buying truncates the distribution's left side, producing desirable positive skewness, while call writing truncates the distribution's right side, producing unwanted negative skewness, they conclude that call writing is superior to put-buying. Financial performance is a subjective measure of a company's capacity to generate revenue and use resources from its core business model. This term is also used as a general indicator of a company's overall financial health during a certain time period when comparing similar businesses within the same industry or when comparing industries or sectors collectively.

The methods used to effectively manage a portfolio in order to maximize returns while minimizing risks are referred to as portfolio management strategies. Leverage Approach: Increasing your purchasing power through leverage can raise your potential profit but also raise your potential risk. Investors typically accomplish this by using margin, which is simply borrowing money from Scot trade, or by buying option contracts. Leveraging With Margin: To expand the size of their position, stock traders may utilize a margin account. When stock traders utilize margin, they are actually borrowing against the stock they are purchasing. When you purchase more shares, they stipulate that you can borrow 50% of the stock you are purchasing (mehring 2005).

In other words, compared to utilizing cash, you are actually handed twice as much money to trade with. Although leverage can significantly boost your profits, it also increases your risk of stock declines.

Because of this, traders who use more leverage typically need to have tight stops in place when they plan to exit their position in order to lower risk. There are a few more possible drawbacks to utilizing leverage when buying stocks, in addition to the obvious concerns. In order to raise funds from both local and global sources for high-impact, lucrative development projects, the Rwanda Investment Group (RIG) was established in May 2006. The majority of RIG's shareholders are entrepreneurs and private businesses from a variety of sectors. Tribert Rujugiro, who is probably Rwanda's top national investor, is at the head of this distinguished group of businessmen.

The sheer volume of his investment and the number of projects to which he has contributed is staggering. Founded in February 2007, Rwanda Investment Group (RIG) is the country's top gas exploitation firm. REC, a division of Rwanda Investment Group, began by taking advantage of Lake Kivu's plentiful natural methane supply to offer the nation an affordable and alternative electricity source. RIG acknowledged the necessity of creating more affordable and dependable renewable energy sources. The first was a trial project (phase I) that RIG spent \$11 million to use REC to produce 3.6 MW of power from methane gas resources in L. Kivu. The Rwandan government has given REC a gas concession to produce 50 MW of electricity, with the possibility of increasing output to 100 MW.

This study aims to clarify how a portfolio reduces investment risk and provides the best return for a given level of risk. It also discusses the various investment choices made by various individuals and pays close attention to the risk component of securities investing. It also provides a thorough examination of the process of creating, choosing, editing, and assessing a portfolio. For successful and efficient portfolio creation, the paper also demonstrates various approaches to securities analysis and theories of portfolio management (Campbell, 2002). Additionally, it provides a succinct explanation of portfolio evaluation. Diversification is a risk-reduction and investment strategy that includes holding a portfolio. Certain kinds of risk, namely specific risk, can be decreased by having multiple assets. Choosing which assets to buy, how many to buy, when to buy them, and which to sell are all part of the selection process.

## II. THEORETICAL FRAMEWORK

### Risk Aversion Theory

Risk aversion is the general desire of an investor to avoid "risky" activities or, in this case, risky investments (Fischer, 1972). A common goal of investors is to minimize risk while maximizing return. A prudent investor would always select the investment with the lowest risk when presented with two options with comparable returns since there is no advantage to taking on more risk unless it also results in a higher level of return. An excellent illustration of investors' risk aversion is insurance. Given the probability of a car accident, an investor might decide to purchase insurance to lessen the chance of having to pay hefty expenses in the event of an accident.

### Markowitz Portfolio Theory

The portfolio model was created by Markowitz in 1953. In addition to the predicted return, this model takes into account the level of risk connected to a certain return. The following assumptions about an individual's investing behavior were made by Markowitz: If the expected return is the same, an investor will choose the investment with the least degree of risk. Investors use the variance or standard deviation of an investment to gauge risk. The investor can calculate the expected return on each investment as well as the likelihood of such returns over a given time period. The goal of investing is to maximize usefulness. An investor's utility curve is based on risk and return since investors base their decisions on these factors.

Markowitz's research on a person's investment behavior is significant when examining both individual investments and portfolios. A portfolio's risk considers the risk and return of each investment as well as how each investment relates to the other investments in the portfolio.

The correlation between each investment and the other assets in the portfolio, as well as the risk of each investment in relation to its return, determine the risk of the portfolio. A portfolio is considered efficient if it provides the investor with a better expected return at the same or lower level of risk than another investment. The efficient borders are just a plot of those efficient portfolios, as can be seen below. Even though an efficient frontier displays each efficient portfolio in regard to risk and return levels, not all investors will find it suitable.

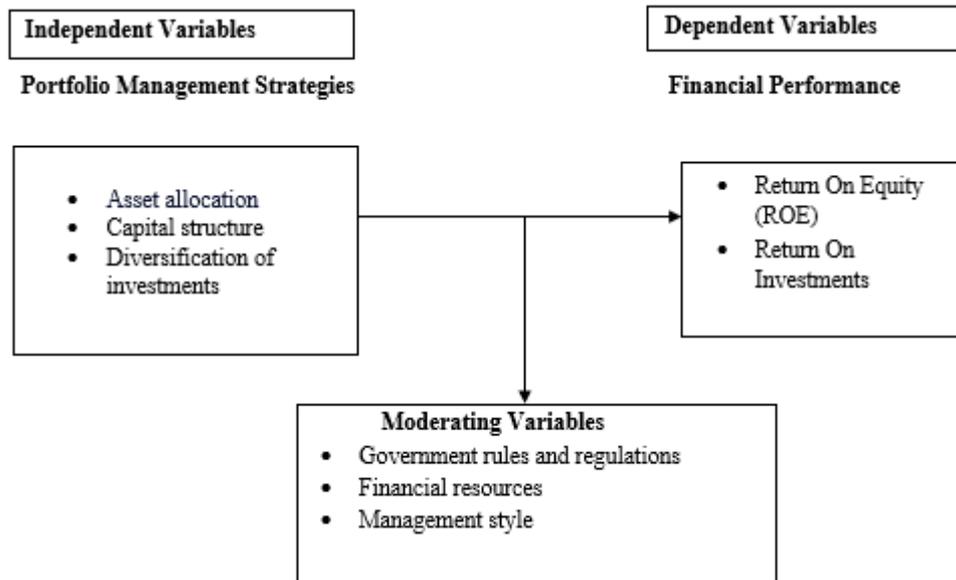
Remember that the main goals of developing an investment policy were risk and return. Indifference curves show the risk profile of an investor. The point on the efficient frontier that is tangential to the investor's highest indifference curve is, therefore, the optimal portfolio. See our article: A Guide to Portfolio Construction for some essential steps to take when constructing a portfolio in a systematic way.

### Modern Portfolio Theory

Modern portfolio theory seeks to minimize risk for a given level of expected return or, on the other hand, optimize portfolio expected return for a given degree of portfolio risk by carefully calculating the proportions of various assets. Even though MPT is widely used in the financial industry and three of its creators received Nobel Memorial Prizes for it, the theory's core principles have been hotly debated in recent years by fields like behavioral economics. The idea of diversity in investing is described mathematically by MPT, which aims to select a group of investment assets with a lower overall risk than any one asset. Since the value of various asset categories frequently fluctuates in opposite directions, it makes intuitive sense that this is possible. According to theory, a group of both kinds of assets may be less risky overall than either one alone, for instance, since stock and bond prices fluctuate differently. However, diversification reduces risk even when the returns of assets are positively connected, or even if they are not negatively correlated. According to technical definitions, MPT models the return of an asset as a normally distributed function (or, more generally, as an elliptically distributed random variable), defines risk as the standard deviation of return, and models a portfolio as a weighted combination of assets so that the return of the portfolio equals the weighted combination of the returns of its assets. By combining a number of assets whose returns are not precisely positively correlated, MPT seeks to reduce the total variance of the portfolio return. Furthermore, MPT assumes that investors are rational and markets are efficient.

## III. CONCEPTUAL FRAMEWORK

Figure 1 shows a graphic depicting the relationship between the independent and dependent variables. Financial performance displays the output, whereas the independent variable represents the input variable and the moderating variable moderates it.



Source: (Researcher Compilation, 2023)

Figure 1: Conceptual Framework

#### IV. RESEARCH METHODOLOGY

##### Research Design

The study adopted a descriptive survey design, using both quantitative and qualitative methods for data collection and analysis; this involved collection of primary data from respondents using questionnaires. The collected data were analyzed in relation to the topic. These methods also helped the researcher to describe the situation instead of judging or interpreting.

##### Population

The target population was members of Rwanda Investment Group which formed a population of 68 employees, senior management inclusive working at RIG Head-office.

##### Sample Design

##### Sample Size

The research was based on members of RIG Head which forms a population of 68 staff. The sample size for this study was 31 staff members.

##### Sampling Technique

A sample size of 31 staff members was selected through purposive sampling, which only included staff that was perceived to understand the objectives of this study.

##### Data Collection Methods

##### Data Collection Instruments

The research study utilized questionnaires for primary data collection. Questionnaires were preferred because they ensure confidentiality, save time, and are easy to administer. The researcher drafted the questionnaires, which were then sent to the respondents. They included both closed - ended and open - ended questions.

##### Data Analysis Procedure

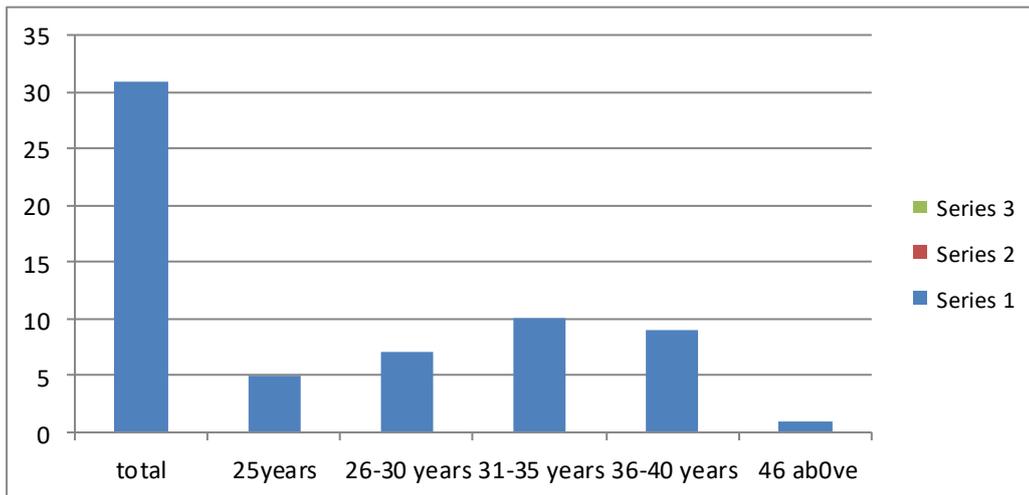
In this research, both quantitative and qualitative data were collected. Each theme was consolidated into a master sheet, where analysis was processed against the study objectives. Qualitative data was presented in narratives form, incorporating verbatim reporting so that some strong feelings of respondents can be reported as they are, a method commonly called content analysis. Quantitative data was analyzed using both descriptive and inferential statistics. In descriptive statistics, quantitative summaries were provided by frequency tables and percentages, while visual representation was provided by simply understood diagrams. A relationship between risk management procedures and financial institutions' financial

performance—as determined by their profitability as indicated by return on assets—was established using inferential statistics. Inferential statistics were informed by the means of Pearson’s Correlation Data and results were presented through tables, graphs, and narratives.

**Results Interpretation**

**Portfolio Management Strategies used by RIG**

This section states the socio-economic characteristics of respondents in the household survey (n=31). The respondent’s social data included their age, sex, family size, education level and Occupation, while economic data include ownership of both livestock and other livelihoods assets.

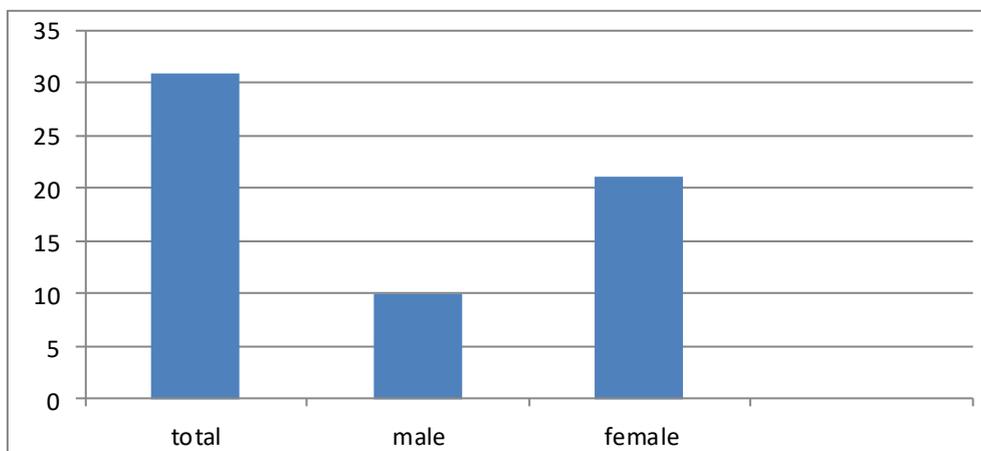


**Figure 2 Distribution of respondent by portfolio management strategies in RIG**

Source: Researcher (2023)

**Distribution of respondent by portfolio management in RIG**

In evaluating the role of financial statements and investment decisions at RIG, Figure 2 reveals that of the 31 respondents, 49.6% had experience between 3 and 4 years, 41.8% had experience between 5 and 6 years, and 5.8% had experience beyond 6 years. Thus, as knowledge and expertise are valuable assets for every business, it is crucial to make sure that knowledgeable staff members have accurate information, and their analytical solutions maximize all interactions within the Rwanda Investment Group to increase customer satisfaction. Thus, the employees with sufficient experience in business administration finance and account options were the subject of this study. Whereby the researcher obtained precise information about the goals and research question.



**Figure 3. distribution of the respondent by gender**

Source: Researcher (2023)

**Distribution of respondent by gender**

According to Table 3, of the 31 respondents, 1.4% were men, 3.5% were women, and 95% had a bachelor's degree. This suggests that the researcher concentrated on those who were sufficiently qualified to evaluate the significance of financial statements and investment decisions. The respondent's educational level shows that they were able to handle the query and information about the study aims, providing correct information about the research question and objective.

**Portfolio Management Strategies used by Rwanda Investment Group**

This subsection is divided into three subsections according to the research objectives. The first section deal with the benefit of internal control system in financial statement of Rwanda Investment Group in Rwanda. The second section deals with the role of finance and accounts in investment group companies, and the third deals with the relationship between internal control system and good investment R I G.

**Effects Of Portfolio Management Strategies on Financial Performance of Rwanda Investment Group**

**Table 1: Effects of portfolio management strategies on financial performance of Rwanda investment group**

	Frequency	Percentage	Cumulative percent
Strong agree	10	14.9	14.9
Agree	21	85.1	100.0
total	31	100.0	

Source: Researcher (2023)

According to Table 1, of the 31 respondents, 14.9% strongly agreed and 85.1% agreed that the portfolio management strategies had an impact on the improvement of accounting and financial management at RIG of Kigali in Rwanda. As a result, all respondents affirmed that the accounting strategies employed in the improvement of accounting and financial management should raise the level of accurate information in investment group companies.

**The Rank of Strategies from Most Important to the Least Important When It Comes to Making Investment Management Group on Decisions?**

**Table 2: The rank of strategies from most important to the least important when it comes to making investment management group on decisions**

	1) Least Important	2) Not Important	3)Neutral				
	4) Important	5) Most Important					
			1	2	3	4	5
Yield spread strategies			10	22	15	33	20
Interest rates expectation strategies			20	18	40	11	11
Individual security selection strategies			15	20	33	18	10
Yield Curve Strategy			10	40	12	22	16

Source: Researcher (2023)

The subsection present, analyze and interpreted the benefit portfolio management strategies financial and accounting in Rwanda Investment Group of Kigali. The researcher focused on improvement on Yield spread strategies, Interest rates expectation strategies, implementation of internal control system, Individual security selection strategies, and Yield Curve Strategy. However appropriate measures are taken to control development, degree of integrity control system contribute in attaining on effective management of financial and account of RIG Kigali, and lastly corrective measures are taken to address the weakness.

**Table 3: Extent that the portfolio management strategy adopted affects the financial performance on RIG**

	Frequency	Percentage	Cumulative percent
High Extent	10	32.2	32.2
Moderate Extent	19	61.3	93.5
Low Extent	2	6.5	100
Total	31	100	100.0

Source: Researcher (2023)

The findings in Table 3 show that 32.2% of the respondents consider the portfolio management strategies adopted by Rwanda Investment Group to greatly influence their financial performance, 61.3% of the respondents agreed that these strategies have a moderate impact on their financial performance, and only 6.5% perceive a low impact. The findings indicate that the majority of the respondents, representing 93.5% , confirmed that the portfolio management strategies adopted by Rwanda Investment Group, namely asset allocation, diversification of investments and capital structure, have a significant and direct impact on the return on equity and investments of Rwanda Investment Group.

**Table 4: Factors affect financial performance of investments companies**

	Frequency	Percentage	Cumulative percent
Strongly agree	10	22.0	22.0
Agree	21	78.0	100.0
Total	31	100.0	

**Source: Researcher (2023)**

The findings in Table4 show that 22% of the respondents strongly agreed that implementing activities is one the benefits Rwanda Investment Group get from internal control system, 78% of the respondents agreed that implementation of activities is among the benefits that Rwanda Investment Group get from internal control system. It is clear that all the respondents confirmed that implementation of activities is among the benefits that Rwanda Investment Group get from internal control system which has a significant impact on return on equity and investments of Rwanda Investment Group.

**Table 5: Views of respondents on the Challenges in portfolio management at Rwanda investment group staff**

	Frequency	Percent	Cumulative percent
Strongly agree	7	10.6	10.6
Agree	12	79.4	90.1
Disagree	10	7.1	97.2
Strongly disagree	4	2.8	100.0
Total	31	100.0	

**Source: Researcher (2023)**

According to the data in Table 5, 10.6% of respondents strongly agreed that one of the benefits Rwanda Investment Group receives from the financial control system is feedback to the officer regarding the operation of the management system of financial statements under Rwanda Investment Group. Additionally, 79.4% of respondents agreed that the feedback to the officer regarding the operation of the management system of financial statements under Rwanda Investment Group is one of the benefits Rwanda Investment Group receives from the financial control system, while only 9.9% of respondents disagreed. This also proves that the challenges faced in portfolio management of Rwanda Investment Group has a direct effect on return on equity and investments of Rwanda Investment Group.

**Table 6: Views of respondents on appropriate measures taken to address challenges faced in portfolio management and financial performance of RIG**

	Frequency	percentage	Valid percent	Calmative percent
Strongly agree	12	8.5	8.5	8.5
Agree	19	91.5	91.5	100.0
total	31	100.0	100.0	

**Source: Researcher (2023)**

The results in Table6 show that 8.5% of the respondents strongly agreed that internal control systems have a direct effect on return on equity and investments of Rwanda Investment Group, 91.5% of the respondents strongly agreed that internal control systems have a direct effect on return on equity and investments of Rwanda Investment Group, which means that 100% of the respondents confirmed that appropriate measures to address portfolio management challenges such as internal control systems, among other measures, significantly impact the financial performance of Rwanda Investment Group, hence there is need to focus on internal control system to achieve high level of portfolio management in a business entity.

## V. CONCLUSION

Based on the interpretation of the data collected and analyzed during the course of this study, several important conclusions were drawn. First, the study established that the portfolio management strategies adopted by the Rwanda Investment Group have a direct influence on its return on equity and overall investments. This finding highlights the critical role that well-structured and carefully implemented portfolio management approaches play in shaping the organization's financial performance. Secondly, the study revealed that diversification of investments has a highly positive impact on the return on investment of the Rwanda Investment Group. This indicates that spreading resources across different investment options not only minimizes risks but also enhances profitability, thereby strengthening the financial sustainability of the organization. Lastly, the study confirmed that the capital structure of the Rwanda Investment Group significantly affects its return on equity. This underlines the importance of maintaining an optimal balance between debt and equity financing to maximize shareholder value and ensure steady financial growth. Collectively, these conclusions emphasize that sound portfolio management strategies, effective diversification, and prudent capital structuring are essential drivers of financial success for the Rwanda Investment Group.

## VI. ETHICAL CONSIDERATIONS

To ensure confidentiality, and as recommended by various researchers, including this research, all possible precautions were taken to ensure that neither informants nor respondents were compromised by the research. The necessary confidentiality agreement for the case study company was prepared and signed by both the researcher and the management of the Rwanda Investment Group. In order to encourage honest and open responses and to maintain the confidentiality of the respondents, questionnaires were directly distributed to participants by the researcher, who immediately collected them after the respondents had completed them.

The participants in this research were assured confidentiality regarding the information they provided both before and after the research process. The assurance of confidentiality allowed for honest responses from the participants. In order to comply with all the required ethical rules, no personal information was collected other than age, gender, level of education and the number of years the individual had been employed by the Rwanda Investment Group.

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