

## DOES MEMBERS' CONTRIBUTION INFLUENCE FINANCIAL PERFORMANCE OF PENSION FUNDS IN TANZANIA? THE CASE OF PUBLIC SERVICE SOCIAL SECURITY FUND (PSSSF)

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### **Abstract**

*This study investigates the impact of members' contributions on the financial performance of pension funds in Tanzania, with a focus on the Public Service Social Security Fund (PSSSF). Employing a quantitative research approach, data were collected through structured questionnaires administered to 82 finance-related staff members at PSSSF. The data were analyzed using simple linear regression in SPSS version 21. The results indicate that members' contributions account for 76% of the variation in the financial performance of pension funds, while the remaining 24% is attributable to external factors not examined in this study, such as interest rates, inflation, and managerial efficiency. Further analysis reveals that the influence of members' contributions varies across different dimensions of financial performance: they explain 46% of the variation in liquidity, 28% in profitability, and only 2% in solvency. This study recommends continued encouragement for contributors to make timely contributions and initiate creative methods that will ensure a sustainable and enlarged scope of members' contributions without ignoring income from other sources.*

**Keywords:** *Members' Contribution, Financial Performance, Pension Funds, PSSF and Financial Factors*

### **INTRODUCTION**

There have been debates among researchers on the financial performance of public pension funds and what should be done following decades of underperformance and bankruptcy of pension funds witnessed globally (ZamZam, 2019). Tanzanian pension funds have not been exceptional, as the four public pension funds: Parastatal Pension Fund (PPF), Local Authorities Provident Fund (LAPF), Government Employees Pension Fund (GEPF), and the Public Service Pension Fund (PSPF) experienced bankruptcy syndrome for decades before they were all merged to form Public Service Social Security Fund (PSSSF) (Oruma, 2021). One of the major factors pointed out for the failure of the aggregated pension funds, which were later merged to form PSSSF, was overreliance on members' contributions as a funding strategy of the funds, hence negatively affecting their financial performance in the long run (ZamZam, 2019; Malima, 2020).

The concern has been whether merging public pension funds into one consolidated national fund has increased the financial performance of public pension funds or not, despite continued overreliance on members' contributions (Malima, 2020). To the best of the author's knowledge, no study has been done to assess how PSSF's financial performance is affected by member contributions; thus, less is known in the existing literature. This study examines how members' contribution to the newly merged PSSF affects the financial performance of the fund. Financial performance of pension funds, measured in terms of the fund's liquidity, profitability, and solvency, is often cited as an essential determinant for ensuring the provision of safe and reliable pensions for retirees and pensioners (Taylor, 2020; Oruma, 2021). Whether pension fund administrators will become part of a lasting solution to the pension financing problems in Tanzania depends on their ability to continue to grow, expand, and sustain themselves over time (Njiru, 2020).

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Contemporary literature on pension reforms identified financial performance as the key challenge of Pension Fund Administrators (Oruma, 2021). In the context of this study, financial performance is used to mean the liquidity, solvency and profitability of PSSSF's financial resources. This study measured the financial performance of public funds in terms of liquidity, profitability, and solvency, as these are the most significant indicators for assessing financial health, which might suggest bankruptcy in their absence (Oruma, 2021). Pension fund performance determines the financial strength of the fund and is often a result of pension fund performance planning, monitoring, and evaluation over time (Njiru, 2020). Close monitoring and swift action to timely evaluate the performance of the pension fund, as part of Pension Fund Administration, affects the financial strength of the fund in most developing economies (Njiru, 2020). According to Brown (2021), the financial strength of a pension fund is a vital interest of the stakeholders of the fund, such as corporate managers, pensioners, and the government. Pension fund's contributors perceive the financial strength of a pension fund as an indicator of a performing pension fund. Compliance with the pension fund contribution is influenced by contributors' perception of the performance of the fund (Njiru, 2020).

Understanding the company's financial performance is important to pension fund contributors, and it is usually done by perceptual evaluation of three key aspects of measuring the general financial strength of firms, including liquidity, profitability, and solvency (Dogra, 2018; Hanson, 2020). Two of the examples of financial performance measures are the return on assets, net profit margin, and the return on investment ratio (ROI) (Dogra, 2018). The net profit ratio indicates the proportion of profit that a firm generates from sales, while return on investment measures the level to which the capital invested generates profitability (Adams, 2006). ROA indicates how much profit is generated per unit of the assets owned. Thus, higher values of return on assets show that the business is more profitable. An increasing trend of ROA indicates that the profitability of the company is improving. Conversely, a decreasing trend means that profitability is deteriorating (Dogra, 2018).

According to Saidi and Bakari (2022), PSSSF is a critical institution responsible for providing social security benefits to public sector employees in Tanzania, but its financial performance has been a cause for concern in recent years. Despite significant contributions from employees and the government, the Fund has been struggling to meet its financial obligations to beneficiaries. This problem has significant implications for the welfare of public sector employees who depend on social security benefits provided by the Fund. The government of Tanzania has adopted various modernization and transformative approaches for establishing a few pension funds to provide services to the public. The purposes were to ensure that pension funds produce and deliver services to ensure equity and equality to the citizens and promote national development. The financial performance of pension funds in Tanzania has not been satisfactory as it was expected (Kavishe, 2022).

Several studies (Mushi, 2018; Yolla, 2016; Artful, 2020) have been conducted to determine the factors affecting the financial performance of pension funds using large and well-developed pension funds in various countries. However, there is limited literature examining the financial performance of PSSSF in Tanzania. Literature reports conflicting views on factors affecting financial performance in pension funds. While studies by Malima (2020) and Thomas (2019) suggest the size of fund, board size and composition, as well as GDP, as factors affecting the financial performance of pension funds, others have spotted interest rate, members' contributions, and liquidity as the determinants of financial performance in pension funds (Kirui et al., 2020; Lema et al., 2019). Existing literature has pointed out that

overreliance on members' contributions as a funding strategy of public funds is a major factor that affects the financial performance of public pension funds elsewhere (Dogra, 2018; Hanson, 2020). The scope of the literature search in this study did not find any research on the relationship between members' contributions and the financial performance of pension funds in the Tanzanian context. Studies show that one of the major factors behind the poor financial performance of the four public pension funds that were later forced to merge and form PSSSF to survive was over-reliance on members' contributions as a funding strategy (ZamZam, 2019; Malima, 2020). However, little is known as to whether PSSSF, as a newly merged public pension fund, is still facing similar poor financial performance resulting from overreliance on members' contributions. This study, therefore, aims to bridge the existing knowledge gap and provide a more in-depth understanding of the role played by members' contributions in the financial performance of the PSSSF, as the only public pension fund in Tanzania. It is important to establish the link between members' contributions and the financial performance of the newly merged PSSSF as the only public pension fund in Tanzania so as, not only to bridge the existing knowledge gap, but also to help the government to ensure better financial performance of the fund owing to the pivotal role it plays to the social safety and economic development of the country.

## Literature Review

Pension funds' performance is a popular concept in performance debates in the literature. According to Mushi (2018), for example, fund performance is measured by the financial strength of the pension fund. This view is supported by other scholars, such as Yolla (2016), Artful (2020), and Kavishe (2022). There are three main aspects of measuring a company's overall financial strength: liquidity, profitability, and solvency. Two examples of financial performance measures are the return on assets, net profit margin, and the return on investment ratio (ROI) (Okeyo, 2017; Dogra, 2018). The net profit ratio indicates the portion of profit a company generates from sales, while return on investment measures the extent to which the invested capital generates profitability (Adams, 2006). ROA indicates the number of cents earned on each shilling of assets. Thus, higher values of return on assets show that the business is more profitable. An increasing trend of ROA indicates that the profitability of the company is improving. Conversely, a decreasing trend means that profitability is deteriorating (Dogra, 2018). Several studies have been conducted to determine the factors affecting the financial performance of pension funds using large and well-developed pension funds in various countries. Researchers have reported varying findings on the topic, pointing out how various factors influence pension fund performance (Mushi, 2018; Yolla, 2016; Artful, 2020). Literature reports conflicting views on factors affecting financial performance in pension funds. While some studies by scholars such as Malima (2020) and Thomas (2019) suggest size of the fund, board size and composition as well as GDP as factors affecting the financial performance of pension funds, other scholars have spotted interest rate, members contribution and liquidity as the determinants of financial performance in pension funds (Kirui et al., 2020; Lema et al., 2019).

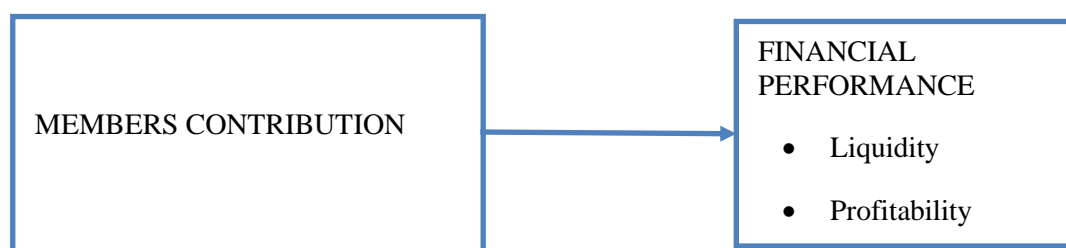
The study conducted by Okeyo (2017) indicates that pension funds with low pension contribution densities are at a higher risk of providing insufficient retirement income for their members. This issue is more prevalent in countries with a large informal sector, where pension contributions are not mandatory and regulated. The study highlights the importance of increasing pension contribution densities as a key factor in ensuring sufficient retirement income for pension fund members. Overall, the findings of the study underscore the significance of addressing low pension contribution densities as a crucial policy priority in promoting retirement income security for pension fund members (Lemma, et al., 2010).

Ngugi et al., (2018) conducted a study focusing on the relationship between pension contribution and pension financial performance. The study utilized various sources of data, such as household surveys and administrative records. It revealed that contributions play a critical role in determining the pension's financial performance when measured in terms of its liquidity. However, the study showed that financial contribution had an insignificant impact on other measurements of financial performance, such as profitability and solvency. Herrerias and Zamarripa (2017) examined the factors affecting the density of contributions in Mexico's pension system. They found that low density of contributions is a common characteristic in developing countries, with African countries being the worst affected, and Mexico, Chile, and Uruguay also facing similar issues. The study reveals that the more contributions members make to the pension fund, the greater the financial performance as measured by increased ROI, NPM and ROCE. Therefore, this confirms that there is a significant positive relationship between members' contributions and the financial performance of pension funds.

### Conceptual Framework

The study is based on two variables, where members' contributions is the independent variable and financial performance is **the intended variable**. As Figure 1.1 shows, the conceptual model of the study communicates the intention of this study, that is, to examine the effect of members' contributions on the financial performance of pension funds in Tanzania, using PSSF as a case study.

**Figure 1.1: Effect of Members' Contribution on the Financial Performance of Pension Funds**



Source: Researcher (2025)

Members' contribution is measured in terms of the total value of annual contributions of members to PSSSF. In contrast, financial performance in this study is measured in terms of liquidity, profitability, and solvency.

### Hypotheses

This study tested the following Hypotheses:

**H1:** *There is a positive relationship between members' contribution and liquidity dimension of financial performance of pension funds in Tanzania.*

**H2:** *There is a positive relationship between members' contribution and profitability dimension of financial performance of pension funds in Tanzania.*

**H3:** *There is a positive relationship between members' contribution and solvency dimension of financial performance of pension funds in Tanzania.*

**H4:** *Members' contributions have a significant impact on the financial performance of pension funds in Tanzania.*

## Methodology

This is a quantitative case study based on the data collected by a structured questionnaire from 82 respondents, all PSSF staff from finance related departments. The questionnaire was tested and proven to be reliable and valid. Quantitative data were analysed using linear simple regression by SPSS 21, and the outputs are summarised in tables and figures as well as statistical interpretations. This study is based on two variables: members' contribution and financial performance. Table 1.0 shows the variables with their measurements and operationalization.

**Table 1.0: Measurement and Operationalization of Variables**

Variable	Operationalization	Authority	Measurement
Members Contribution	Timely contributed	Zamarripa's (2017)	1=Strongly Agree 2=Agree 3=Disagree 4=Strongly disagree
	Accurately contributed		
	Consistently contributed		
Financial Performance	Liquidity	Mushi (2018)	
	Profitability		
	Solvency		

Source: Reviewed Literature (2025)

## Results and Discussion

Simple Linear Regression Analysis by SPSS was used to test the hypotheses that “members’ contribution has a significant effect on the financial performance (liquidity, profitability and solvency) of Pension Funds in Tanzania”. The independent variable was regressed against each proxy of financial performance (liquidity, profitability and solvency) to understand the impact of members’ contribution on each element. The study tested the fitness of the model in the first phase of each simple regression analysis and in the second phase it determined the cause-effect relationship between independent and dependent variables.

Simple linear regression was used to test each hypothesis by regressing the independent variable (Members’ contribution against liquidity, profitability and solvency). In testing the hypotheses, the model fitness was tested, followed by testing the significance of the regression model and the strength of the predictor in predicting variations in the dependent variable.

**H1:** *There is a positive relationship between members’ contribution and liquidity dimension of financial performance of pension funds in Tanzania.*

To test the hypothesis that “there is a positive relationship between members’ contribution and liquidity dimension of financial performance of pension funds in Tanzania,” a linear simple regression analysis by SPSS was conducted and its output is shown in Tables 1.1 - 1.3. The study tested the fitness of the model in the first phase of the analysis and in the second phase it determined the cause-effect relationship between independent and dependent variables.

## Regression Model Fitness Testing

The regression model fitness was tested using Beta (model slope), and the significance of the regression model was tested using the ANOVA test. The output for the hypothesis stating that

“the regression model is fit for predicting the variations in financial performance of pension fund in Tanzania” is summarized in Table 1.1.

**Table 1.1: Regression Coefficients**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.704	.343		2.052	.000
	Members contribution	.709	.169	.745	4.195	.00

a. Dependent Variable: Financial Performance (Liquidity)

Table 1.1 shows that the simple regression model used is

$FPL = 0.704MC + 0.709$ , where FPL= Financial Performance (Liquidity)

MC=Members' contribution

The regression model  $FPL = 0.704MC + 0.709$  suggests that the Beta coefficients for the predictor (members' contribution) is: members' contribution,  $\beta = 0.704$ ,  $t = 4.195$ ,  $*p < .005$ . Based on these findings, the best fitting model for predicting variations in the dependent variable is members' contribution regressed against the liquidity of pension funds in Tanzania. The model is summarized as  $FPL = 0.704MC + 0.709$ . It implies that there is a high possibility that the population slope is significantly different from zero; therefore, the regression model is capable of predicting variations of the dependent variable. Based on the findings in Table 1.1, there is enough evidence to reject the null hypothesis being tested. It can thus be statistically concluded that the regression model is fit to predict the variations in the dependent variable.

### The Significance of the Regression Model

To test the significance of the regression model, an ANOVA test was run, and its output is summarized in Table 1.2.

**Table 1.2: ANOVA Test for the Regression Model (Members' Contribution Regressed Against Financial Performance (Liquidity))**

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	73.789	1	73.789	76.150	<.000 <sup>b</sup>
	Residual	78.506	81	.969		
	Total	152.295	82			

a. Dependent Variable: Financial Performance (Liquidity)

b. Predictors: (Constant), Members' Contribution

The linear regression's F test in ANOVA was meant to test the hypothesis that the model explains zero variance in the dependent variable ( $R^2=0$ ). The ANOVA output indicates that the F value is 76.150, and the P value of the regression model is significant at a P value of 0.000. From this output, the P-value is greater than 0.005 ( $P=0.000$ ;  $<0.005$ ). There is enough statistical evidence to conclude that the regression model consisting of members' contributions as an independent variable is capable of predicting variations in financial performance ( $R^2 > 0$ ).

### Coefficient of Determination

To determine the impact of members' contribution on the liquidity aspect of the financial performance of PSSSF, the regression output is shown in Table 1.3.

**Table 1.3: Coefficient of Determination**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.677 <sup>a</sup>	.459	.359	.512

a. Predictors: (Constant), Members' Contribution

b. Dependent Variable: Financial Performance (Liquidity)

The regression output in Table 1.3 shows that the coefficient of determination ( $R^2$ ) of the regression model is 0.459, which implies that members' contribution predicts 46% of the variations in the liquidity aspect of financial performance. Based on the findings, there is enough statistical evidence to conclude that members' contribution has a significant impact on the liquidity dimension of the financial performance of pension funds in Tanzania. Since the findings show that members' contributions predict 46% of variations in the liquidity of the pension funds, it implies that other factors not included in this model predict 54% of the variations in the financial performance of PSSSF. The findings further imply that over-reliance on membership contributions does not have a negative effect on the liquidity aspect of the financial performance of PSSSF. On the contrary, it increases its performance. It is important to point out that PSSSF needs to invest more in expanding the scope of members' contributions and improving the technology for collecting these contributions to help the newly merged pension fund thrive.

### *H2: There is a positive relationship between members' contribution and profitability dimension of financial performance of pension funds in Tanzania.*

To test the hypothesis that "there is a positive relationship between members' contribution and profitability dimension of financial performance of pension funds in Tanzania," a simple linear regression analysis by SPSS was conducted and its output is shown in Tables 1.4 to 1.6. The study tested the fitness of the model in the first phase of the analysis and in the second phase it determined the cause-effect relationship between independent and dependent variables.

### Regression Model Fitness Testing

The regression model fitness was tested using Beta (model slope), and the significance of the regression model was tested using the ANOVA test. The output for the hypothesis that states that "the regression model is fit for predicting the variations in the profitability aspect of the financial performance of pension fund in Tanzania" is summarized in Table 1.4.

**Table 1.4: Regression Coefficients**  
**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.412	.343		2.052	.000
	Members contribution	.433	.302	.451	0.187	.000

a. Dependent Variable: Financial Performance (Profitability)

Table 1.1 shows that the simple regression model used is:

$FPP = 0.412MC + 0.433$ , where FPP= Financial Performance (Profitability)

MC=Members' contribution

The regression model  $FPP = 0.412MC + 0.433$  suggests that the Beta coefficients for the predictor (members' contribution) are: members' contribution,  $\beta = 0.412$ ,  $t = 0.187$ ,  $*p < .005$ . Based on these findings, the best fitting model for predicting variations in the dependent variable is members' contribution regressed against the financial performance (profitability) of pension funds in Tanzania. The model is summarized as  $FPP = 0.412MC + 0.433$ . This implies that there is a high probability that the population slope is significantly different from zero; therefore, the regression model is capable of predicting variations in the dependent variable. Based on the findings in Table 1.4, there is enough evidence to reject the null hypothesis being tested. It can therefore be statistically concluded that the regression model is fit to predict the variations in the dependent variable.

### The Significance of the Regression Model

To test the significance of the regression model, an ANOVA test was run, and its output is summarized in Table 1.5.

**Table 1.5: ANOVA Test for the Regression Model (Members' Contribution Regressed Against Financial Performance (Profitability))**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	66.709	1	66.709	69.706	<.000 <sup>b</sup>
	Residual	77.506	81	.957		
	Total	144.215	82			

a. Dependent Variable: Financial Performance (Profitability)

b. Predictors: (Constant), Members' Contribution

The linear regression's F test in ANOVA was meant to test the hypothesis that the model explains zero variance in the dependent variable ( $R^2=0$ ). The ANOVA output indicates that the F value is 69.706, and the P value of the regression model is significant at a P value of 0.000. From this output, the P-value is greater than 0.005 ( $P=0.000$ ;  $<0.005$ ). There is sufficient statistical evidence to conclude that the regression model, which includes members' contributions as an independent variable, can predict variations in PSSSF's profitability ( $R^2 > 0$ ).

### Coefficient of Determination

To determine the impact of members' contributions on the profitability aspect of the financial performance of PSSSF, the regression output is shown in Table 1.6.



**Table 1.6: Coefficient of Determination****Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.527 <sup>a</sup>	.278	.3042	.512

a. Predictors: (Constant), Members' Contribution

b. Dependent Variable: Financial Performance (profitability)

The regression output in Table 1 shows that the coefficient of determination ( $R^2$ ) of the regression model is 0.278, which implies that members' contributions predict 28% of the variations in the profitability aspect of financial performance. Based on the findings, there is sufficient statistical evidence to conclude that members' contributions have a significant impact on the profitability dimension of the financial performance of pension funds in Tanzania. Since the findings show that members' contributions predict 28% of variations in the profitability of the pension funds, it implies that other factors not included in this model predict 72% of the variations in the financial performance of PSSSF. The findings further imply that over-reliance on membership contributions does not have a negative effect on the profitability dimension of the financial performance of PSSSF. On the contrary, it increases its performance.

***H3: There is a positive relationship between members' contribution and solvency dimension of financial performance of pension funds in Tanzania.***

To test the hypothesis that “there is a positive relationship between members' contributions and the solvency dimension of financial performance of pension funds in Tanzania,” a simple linear regression analysis by SPSS was conducted and its output is shown in Tables 1.7 to 1.9. The study tested the fitness of the model in the first phase of the analysis and in the second phase it determined the cause-effect relationship between independent and dependent variables.

### Regression Model Fitness Testing

The regression model fitness was tested using Beta (model slope), and the significance of the regression model was tested using the ANOVA test. The output for the hypothesis that stated that “the regression model is fit for predicting the variations in the solvency aspect of the financial performance of pension fund in Tanzania” is summarized in Table 1.7.

**Table 1.1: Regression Coefficients**  
**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.052	.243		1.052	.000
	Members contribution	.309	.160	.145	0.095	.00

a. Dependent Variable: Financial Performance (Solvency)

Table 1.7 shows that the simple regression model used is:

FPS= .052MC+ .309, where FPS= Financial Performance (Solvency)

MC=Members' contribution

The regression model  $FPS = 0.052MC + .309$  suggests that the Beta coefficients for the predictor (members' contribution) are: members' contribution,  $\beta = 0.052$ ,  $t = 0.095$ ,  $*p < .005$ . Based on these findings, the best fitting model for predicting variations in the dependent variable is members' contribution regressed against the solvency aspect of PSSF's financial performance. The model is summarized as  $FPS = 0.052MC + .309$ . It implies that there is a significant possibility that the population slope is not equal to zero; therefore, the regression model is capable of predicting variations of the dependent variable. Based on the findings in Table 1.7, there is enough evidence to reject the null hypothesis being tested. It can thus be statistically concluded that the regression model is fit to predict variations in the financial performance of PSSSF.

### The Significance of the Regression Model

To test the significance of the regression model, an ANOVA test was run, and its output is summarized in Table 1.8.

**Table 1.8: ANOVA Test for the Regression Model (Members' Contribution Regressed Against Financial Performance (Solvency))**

ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	20.678	1	20.678	22.525	<.000 <sup>b</sup>
	Residual	74.387	81	.918		
	Total	95.065	82			

a. Dependent Variable: Members' Contribution

b. Predictors: (Constant), Financial Performance (Solvency)

The linear regression's F test in ANOVA was meant to test the hypothesis that the model explains zero variance in the dependent variable ( $R^2=0$ ). The ANOVA output indicates that the F value is 22.525, and the P value of the regression model is significant at a P value of 0.000. From this output, the P-value is greater than 0.005 ( $P=0.000$ ;  $<0.005$ ). There is enough statistical evidence to conclude that the regression model consisting of members' contribution as an independent variable is capable of predicting variations in the solvency aspect of financial performance ( $R^2 > 0$ ).

### Coefficient of Determination

To determine the impact of members' contributions on the solvency aspect of the financial performance of PSSSF, the regression output is shown in Table 1.9.

**Table 1.9: Coefficient of Determination Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.148 <sup>a</sup>	.022	.177	.331

a. Predictors: (Constant), Members' Contribution

b. Dependent Variable: Financial Performance (Solvency)

The regression output in Table 1.9 shows that the coefficient of determination ( $R^2$ ) of the regression model is 0.022, which implies that members' contribution predicts 2% of the variations in the liquidity aspect of financial performance. Based on the findings, there is enough statistical evidence to conclude that members' contributions have a significant impact on the solvency dimension of the financial performance of pension funds in Tanzania. Since the findings show that members' contributions predict 2 % of variations in the solvency of the pension funds, it implies that other factors not included in this model predict 98% of the variations in the financial performance of PSSSF.

*H4. Members' contribution has a significant impact on financial performance of pension funds in Tanzania.*

To test the hypothesis that "members' contribution has a significant impact on financial performance of pension funds in Tanzania," a linear simple regression analysis by SPSS was conducted and its output is shown in Table 1.10.

**Table 1.10: Coefficient of Determination Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.871 <sup>a</sup>	.759	.659	.512

a. Predictors: (Constant), Members Contribution

b. Dependent Variable: Financial Performance

The regression output in Table 1.10 shows that the coefficient of determination ( $R^2$ ) of the regression model is 0.759, which implies that members' contribution predicts 76% of the variations in financial performance. Based on the findings, there is enough statistical evidence to conclude that members' contributions have a significant impact on the financial performance of pension funds in Tanzania. Since the findings show that members' contributions predict 76% of variations in pension funds' financial performance, it implies that other factors not included in this study predict 24% of the variations in the financial performance of PSSSF.

## Discussion of Findings

The findings of the regression analyses to determine the impact of members' contributions on the financial performance (liquidity, profitability, and solvency) of PSSSF in Tanzania suggest an appealing insight into the relationship between members' contributions and various aspects of financial performance. To start with, determining the impact of members' contributions on the liquidity aspect of financial performance, this study found the coefficient of determination ( $R^2$ ) of the regression model to be 0.459, which implies that members' contributions predict 46% of the variations in the liquidity aspect of financial performance. Furthermore, it was observed that the impact of members' contributions on the profitability of the coefficient of determination ( $R^2$ ) of the regression model is 0.278, which implies that members' contributions predict 28% of the variations in the profitability aspect of financial performance. Moreover, the findings on the relation between members' contributions and the liquidity aspect of financial performance of PSSSF found that the coefficient of determination ( $R^2$ ) of the regression model is 0.022, which implies that members' contributions predict 2% of the variations in the liquidity aspect of financial performance. Based on the findings, there is enough statistical evidence to conclude that members' contributions have a significant impact on the solvency dimension of the financial performance of pension funds in Tanzania.

When members' contributions are regressed against the financial performance of PSSF, the coefficient of determination ( $R^2$ ) is 0.759, implying that members' contributions can generally predict 76% of PSSF's financial performance variations. The findings further suggest that over-reliance on membership contributions does not have a negative effect on the financial performance of PSSSF. On the contrary, it increases its performance. It is important to point out that PSSSF needs to invest more in expanding the scope of members' contributions and improving the collection technology for members' contributions to help the newly merged pension fund thrive. Although members' contribution is the major predictor of PSSSF's financial performance, it is appealing to argue that the Tanzanian public pension fund also needs to invest in alternative funding strategies because the findings clearly show that 24% of PSSSF's financial performance is explained by funding strategies other than members' contributions. Thus, the fund should not underrate the role of alternative funding strategies.

## Conclusion

This study aimed to examine the effect of members' contributions on the financial performance of pension funds in Tanzania. Specifically, the study examined the relation between members' contributions and the three proxies of financial performance namely; liquidity, profitability, and solvency of PSSSF in Tanzania. The study found that members' contributions affect the liquidity, profitability, and solvency aspects of PSSSF's financial performance by 46%, 28%, and 2%, respectively. The findings further show that, cumulatively, members' contributions predict 76% of the variations in the financial performance of pension funds in Tanzania, when all financial performance proxies are included in the regression model. Based on these findings, there is enough statistical evidence to conclude that members' contribution (Liquidity, Profitability, and Solvency) has a significant impact on the financial performance of pension funds in Tanzania. The findings show that members' contributions predict 76% of the variations in the financial performance of pension funds in Tanzania. The findings further show that over-reliance on membership contributions does not have a negative effect on the financial performance of PSSSF. On the contrary, it increases its performance.

This study, thus, found enough evidence to conclude that there is a positive relationship between members' contributions and the financial performance of PSSSF in Tanzania. Furthermore, the study found that members' contributions have a significant effect on the financial performance of PSSSF. However, the nature of the effect varies from one proxy of financial performance to another. For example, the study found that members' contributions affect liquidity by 46% while profitability and solvency are only affected by 28% and 2% respectively. Based on the presented findings, this study concludes that members' contributions significantly affect the financial performance of the pension fund in Tanzania. However, the effect of members' contributions varies depending on the aspect of financial performance considered. Members' contributions have the highest effect on liquidity, followed by profitability and solvency aspects of financial performance.

The study further concludes that members' contributions are not the only determinant of pension funds' performance variations in Tanzania, since there are other factors that were not part of this study.

## Recommendations

Contrary to the common conception echoed by literature elsewhere that over-reliance on members' contributions as the funding strategy of public pension funds negatively affects their financial performance, this study found that over-reliance on membership contributions does not have a negative effect on the financial performance of PSSSF. On the contrary, it increases its performance. It is important to point out that PSSSF needs to invest more in expanding the scope of members' contributions and improving the technology for collecting these contributions to help the newly merged pension fund to thrive.

Although members' contributions are the major predictor of PSSSF financial performance, it is appealing to argue that the Tanzanian public pension fund also needs to invest in alternative funding strategies because the findings clearly show that 24% of PSSSF financial performance is explained by funding strategies other than members' contributions. Thus, the fund should not underrate the role of alternative funding strategies.

This study recommends that pension funds, such as PSSF, invest more in members' contributions, as the findings indicate that this investment predicts 76% of the variations in financial performance, as measured by liquidity, profitability, and solvency. This study further recommends that PSSF and the government at large should strike a balance between various funding sources to the pension fund, thereby giving members' contributions the attention they deserve. Recently, pension funds have been investing much in other sources of income, such as real estate projects, and have long reduced their emphasis on membership contributions. As a result, such contributions have been inconsistent, delayed, and often minimal compared to the operational cost of social security funds. However, this does not mean that other factors should be abandoned. Pension funds should equally consider other factors affecting their financial performance, as literature suggests, including alternative sources of income, managerial effectiveness, and related factors, as these collectively predict 24% of variations in the liquidity of pension funds in Tanzania.

## Areas for Further Studies

The literature search for this study did not find any research on the relationship between members' contributions and the financial performance of pension funds in the Tanzanian context. This study, therefore, bridges the existing knowledge gap and provides a more in-depth understanding of the role played by members' contributions in the financial performance within the PSSSF as a public pension fund available in Tanzania. This study had some limitations, especially in the scope covered and the complexity of the methodological tools. Thus, this study recommends that future studies consider a similar study on a larger scope, involving a much larger sample and employing a qualitative method.

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