

**EFFECT OF REVENUE GENERATION ON PUBLIC FINANCIAL MANAGEMENT  
IN NIGERIAN METEOROLOGICAL AGENCY (NIMET)**

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### ABSTRACT

*This study investigates the effect of revenue generation on public financial management (PFM) performance within the Nigerian Meteorological Agency (NiMet), emphasizing the significance of diverse revenue sources such as government grants and user fees. This research employs a survey design using structured questionnaires to gather data from staff at the Nigerian Meteorological Agency (NiMet), targeting a sample size of 356 respondents derived from a population of 1,714 through stratified random sampling and the Yamane formula, with adjustments for non-responses. The analysis employed Ordinary Least Squares (OLS) multiple regression to examine the relationship between revenue generation and public finance management performance. The research reveals a significant negative relationship between government grants and PFM performance, highlighting the risk of dependency and inefficiencies associated with such funding. In contrast, user fees positively impact financial sustainability and operational efficiency. Based on these findings, the study recommends that NiMet should reduce reliance on government grants by exploring alternative funding avenues, such as public-private partnerships and international collaborations. Also, NiMet should continue to enhance and diversify its user fee structures by conducting market research to ensure fees are fair and competitive.*

**Keywords:** Revenue Generation, Public Financial Management, Nigerian Meteorological Agency

### Introduction

In recent years, the efficient management of public finances has emerged as a critical factor in the sustainable development and effective governance of nations worldwide. Within the context of governmental agencies, particularly those tasked with providing essential services to the populace, the optimization of revenue generation plays a pivotal role in ensuring operational effectiveness and fiscal sustainability. One such agency operating within the Nigerian governmental framework is the Nigerian Meteorological Agency (NiMet). NiMet, as the primary institution responsible for weather forecasting, climate monitoring, and related meteorological services across Nigeria, occupies a central position in safeguarding public safety, supporting various economic sectors, and facilitating informed decision-making at both governmental and societal levels. However, the agency's ability to fulfill its mandate is intricately tied to its financial management practices, including the generation, allocation, and utilization of revenue.

Revenue is the income that an organization or business has from its normal business activities, usually from the sale of goods and services to customers. Some organizations receive revenue from interest, royalties, or other fees. Revenue may refer to business income in general, or it may refer to the amount in a monetary unit, earned during a period of time (Fidelia, 2021). Revenue generation is very important in the management of any economy no matter its size or level of development because it defines the means through which financial resources to meet the obligations of the government are derived. Revenues are tools to generate income to government such as taxes, rates, fees, fines, duties, penalties, rents, dues, proceeds and other receipt of government to which the legislature has the power of

appropriation. Thus, the government revenue into two kinds, i.e., recurrent revenue and capital revenue. The process of sourcing for revenue by governments is called revenue generation. Revenue generation in Nigeria is principally derived from taxes and non-tax sources or oil and non-oil sources (Ogenyi & Agada, 2020).

Naturally, majority of the fundings accrue to NiMet is from federal government allocation which cover its operating expenses, including salaries, infrastructure maintenance, research and development, and the procurement of equipment and technology necessary for weather forecasting and monitoring. Additionally, NiMet may receive funding from international organizations, grants, or partnerships to support specific projects, research initiatives, or capacity-building programs. Also, there is internally generated revenue accrue by NiMet which amount to airline ticket sale (5% to 10%), overpass charges (5%) and landing charges (10%) (NiMet, 2017).

Public financial management is absolutely critical to improving the quality of public service outcomes. It affects how funding is used to address national and local priorities, the availability of resources for investment and the cost-effectiveness of public services. Also, it is more than likely that the general public will have greater trust in public sector organizations if there is strong financial stewardship, accountability and transparency in the use of public funds (ACCA, 2010). It is important for governments to get it right because it impacts on a broad range of areas including: aggregate financial management (fiscal sustainability, resource mobilization and allocation), operational management (performance, value-for money and budget management), governance (transparency and accountability) and fiduciary risk management (controls, compliance and oversight) (Patrick, et.al., 2017).

The Nigerian Meteorological Agency (NiMet) plays a critical role in providing weather forecasting, climate monitoring, and meteorological services essential for supporting various sectors and ensuring public safety and economic stability in Nigeria. As a government agency, NiMet's ability to fulfill its mandate hinges on effective public financial management (PFM) practices, which encompass budgeting, revenue generation, expenditure control, and financial accountability. Understanding the factors influencing NiMet's PFM performance, particularly the effect of revenue generation strategies, is crucial for enhancing the agency's financial sustainability and operational effectiveness.

The findings showed that revenue administration agencies need to be reformed and enhanced for effective revenue generation. To the best of knowledge of this research, no detailed study on the effect of revenue generation on PFM performance in NiMet. The problem addressed in this study is to investigate the effect of revenue generation on PFM performance in NiMet. Specifically, the study seeks to understand how different sources of revenue, including government grants and users impact various dimensions of PFM performance within NiMet. Addressing the problem statement will provide valuable insights into the dynamics of revenue generation and its impact on PFM performance in NiMet, contributing to the body of knowledge on public financial management in governmental agencies and informing evidence-based decision-making processes aimed at enhancing organizational effectiveness and service delivery. After looking at the effort of the NiMet to improve the financial

management, it seems it still to be effective. The researcher therefore wants to find out why there is no improvement in the revenue generation.

The primary objective of the study is to determine the effect of revenue generation on public financial management in Nigerian Meteorological Agency (NiMet). The secondary objectives are to:

1. examine the effect of government grants on public financial management (PFM) performance in NiMet.
2. examine the effect of user/services fees on public financial management (PFM) performance in NiMet.

Based on the stated objectives, the following hypotheses are proposed:

H<sub>01</sub>: there is no significant effect of government grants on public financial management (PFM) performance in NiMet.

H<sub>02</sub>: there is no significant effect of user/services fees on public financial management (PFM) performance in NiMet.

## Literature Review

### Concept of Revenue Generation

According to Yakubu (2020), revenue refers to the monetary event of asset values increasing in the organization because of the physical event of production or sales of products or services of the organization. Napier and Stadler (2020) viewed revenue as the inflows or enhancements of assets of a firm or settlements of its liabilities during a period from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations. In addition, Welc (2020) described revenue as inflows of the asset (almost always cash or accounts receivables) received for products or services provided to customers. Public revenue could be defined as the funds generated by the government to finance its activities. In other words, revenue is the total fund generated by government (Federal, state, local government/ to meet their expenditure for a fiscal year. This refers also to the grand total of money of income received from the source of which expenses are incurred. Revenue could be internal or external revenue (Edogbanya & Ja'afaru, 2013). Revenue is an increase in the financial resources of a person or organization through business transaction. The 1999 constitution, sub section 5,162 (10) defines revenue to include all earnings or returns for the government from sale of property, dividends from shares and loans or any derivative sources from a business premise as recognized by the constitution (Alao, 2013). Generally, a government derives its revenue through a variety of avenues ranging from taxation, property sales, grants and transfers from other sectors. However, tax revenue forms a major part of government revenue for many government units.

Referring to revenue generation, Edogbanya and Ja'afaru (2013) is the process of sourcing revenue for the governments as well as private organizations or individuals in carryout their aim and objectives. Kumar, et al. (2018) opined that it is portrayed by the levels of assets accumulation, wealth created, and the quality services by customer level of satisfaction and customer complaints. Crick, et al. (2020) perceived it as all the activities a business undertakes to generate revenue – these activities include (but are not limited to) sales and

marketing. Revenue generation is a critical goal of an organization as it sustains the financial and total management of the firm. A business has two types of activities: non-revenue-generating tasks and revenue-generating tasks (Vagdatli & Petrousatou, 2021). Revenue generation indicates the latter, specifically referring to activities that help create income and profitability. It also includes operating plans, strategies, and practices that are designed for increasing revenue (Kumar et al, 2018; Yakubu, 2020). This means every part of an organization can contribute to the revenue generation process hence, the business can increase its revenue by enhancing its revenue-generating activities such as marketing and other activities that augment the income of the firm (Kumar et al., 2018; Mai, 2021; Na, et al., 2019; Suykens, et al., 2019). The researchers defined firm revenue generation as a process by which a company plans how to market and sell its products or services, to generate income.

### **Government Grants**

Grant is a financial award given to an individual or organization for a specific purpose, often to fund a project, research, or initiative. Grants are typically provided by governments, foundations, or institutions (Holmes, et al., 2020). Fleming and Spocer (2014) see grant can be defined as to formally give or bestow something, such as money, authority, or rights, to someone or something. Rouf (2020) opined that grant is a scholarship or financial aid awarded to students to help cover the costs of education, including tuition, fees, and living expenses. Grants are financial awards given by a government, organization, or individual to support a specific project, initiative, or purpose. These funds are typically allocated without the expectation of repayment, making them different from loans or other forms of financial assistance. Grants are commonly provided to support activities such as research, education, community development, business expansion, and the arts. They play a crucial role in fostering innovation, addressing societal needs, and promoting public welfare by enabling recipients to undertake projects or initiatives they might not otherwise be able to afford (Sullivan, 2020; Hamilton & Madison, 2018).

### **User Fees**

The concept of user/service fees involves charging individuals or entities for the utilization of specific services or facilities provided by public or private organizations. These fees are designed to cover the costs associated with delivering, maintaining, and improving these services. Service fees are charges imposed by organizations or governments for the use of specific services or facilities. These fees help cover the costs of providing and maintaining these services, such as park access, public transportation, library memberships, or licensing and permit applications. They are a way to generate revenue and ensure that the users of the services contribute to their upkeep (Ridde & Morestin, 2010; Morin, et al., 2013). According to Haralambides (2017), service fee is a charge levied by a public or private entity for the utilization of a particular service or facility, intended to cover the costs associated with providing and maintaining that service. Also, user fee is seen as a financial contribution required from individuals or entities that directly benefit from specific public services, infrastructure, or regulatory activities, aimed at ensuring that the beneficiaries share the costs of those services (Hitrva & Sovacool, 2017).

### **Public Finance Management**

Musgrave and Musgrave (1989) defined public finance management refers to the allocation, distribution, and stabilization functions of the government, involving the management of government revenue, expenditure, and debt to achieve macroeconomic stability and equitable distribution of resources. According to Schick (1998), public finance management encompasses the policies, systems, and processes used by governments to ensure that public funds are raised and spent efficiently, transparently, and effectively to promote good governance and fiscal discipline. Andrews and Hill (2003) see public finance management is the administration and control of public sector resources, involving budgeting, revenue collection, and expenditure management to achieve sustainable economic development and public service delivery. The definition by Premchand (1993) see public finance management is the systematic management of government finances, involving the planning, directing, monitoring, organizing, and controlling of monetary resources to achieve the strategic objectives of the public sector.

Allen and Tommasi (2001) opined that public finance management includes the processes, procedures, and institutions through which governments manage public resources, aiming for transparency, accountability, and efficiency in the use of public funds. Brumby and Hemming (2013) defined public finance management involves the mechanisms and practices by which governments generate revenue, allocate resources, manage public expenditures, and monitor fiscal outcomes to achieve policy objectives and economic stability. Also, in the view of Cangiano, et al. (2013) public finance management is the system of policies, regulations, and institutions that govern the collection, allocation, and utilization of public financial resources to ensure effective public service delivery and economic governance. Diamond and Khemani (2006) concluded that public finance management is the comprehensive approach to managing government revenue, expenditure, and debt, ensuring that financial resources are used effectively and responsibly to meet public needs and achieve fiscal sustainability.

### **Empirical Review**

Aliu, et al. (2022) conducted study aimed at ascertaining the effect of government grant on employee performance of small-scale businesses in Nigeria. The objectives were to: evaluate the effect of government training on employee performance of small-scale businesses; and find out how lack of access to finance influences employee performance of small-scale businesses. Theoretical framework of the study was based on motivation theory. A cross sectional, explanatory and descriptive research design was employed and questionnaire was administered to 133 sampled respondents. Both descriptive and inferential statistics were used to analyze the data obtained. The findings of the study showed that government training has a positive effect on employee performance while a low relationship exist between lack of access to finance and employee commitment. The low value of multiple correlation of determination indicates that there are other important factors that affect the employee commitment other than lack of access to finance. The study concluded that government grant has a positive effect on employee performance and the recommended that government grants and assistance agencies should aim at helping small-scale businesses with different marketing strategies to guarantee that they comprehend the market.

Rui (2021) conducted empirical study on the impacts of government grants on firm behaviors. The objectives were to: determine the impact of the government grant on the firm research and development is positive, this can help the firm to improve their technology; analyze the impact of government grants on the firm total asset growth is positive; determine if government grants can help the firm to reduce their short-term liabilities and long-term liabilities; and determine if the firm's profitability is influenced by the products they produced after they are granted money by the government. Data were sources from the data set about the competition and outcomes of the Innovate UK Program and the financial information of these companies incorporated in UK. The study adopted OLS (Ordinary Least Square) regression models. The study found that the government grant on the firm research and development is positive; and showed that winning a grant increase the firm's total asset, short-term liabilities, long-term liabilities, and the firm's intangible asset. The study concluded that the government plays a key role in promoting economic growth, and the competition-based grants hold by the government is a great way to help the innovative firm.

Ogunsanwo and Kazeem (2022) conducted empirical study on the impact of government grant on growth of small and medium scale enterprises in Nigeria (a study of some selected SMEs owners in Abeokuta, Ogun State). The study's objectives were to ascertain the effect of government grant availability, the effect of grant accessibility, and the sufficiency of grant on the expansion of small and medium-sized enterprises. The research design used in the study was a descriptive survey. The research instrument was a structured questionnaire. Three hundred and sixteen (316) SME owners made up the study's population, and a sample size of one hundred and seventy-seven (177) was chosen. Statistical Package for Social Sciences' (SPSS) multiple regression analysis was used to assess the hypotheses developed for this study). The study found that government grants have significant effect on the performance of small-scale business. The study's conclusions showed a favorable association between government grant availability, accessibility, and sufficiency and the expansion of SMEs in Nigeria. The study recommended that government should boost the different grants and resources made available for the operation and establishment of small and medium scale businesses in Nigeria, according to the results and recommendations. This will encourage more Nigerian small- and medium-scale business owners and operators.

Mylene and Natasha (2008) conducted study on the impact of user fees on health service utilization in low- and middle-income countries. The objective of the study was to assess the effects of user charges on the uptake of health services in low- and middle-income countries. A systematic search of 25 social science, economics and health literature databases and other sources was performed to identify and appraise studies on the effects of introducing, removing, increasing or reducing user charges on the uptake of various health services in low- and middle-income countries. Only experimental or quasi-experimental study designs were considered: cluster randomized controlled trials (C-RCT), controlled "before and after" (CBA) studies and interrupted time series (ITS) studies. The study found the effects on health service utilization, sometimes across socioeconomic groups, were identified. Removing or reducing user fees was found to increase the utilization of curative services and perhaps preventive services as well, but may have negatively impacted service quality. Introducing or

increasing fees reduced the utilization of some curative services, although quality improvements may have helped maintain utilization in some cases. When fees were either introduced or removed, the impact was immediate and abrupt. Studies did not adequately show whether such an increase or reduction in utilization was sustained over the longer term. In addition, most of the studies were given low-quality ratings based on criteria adapted from those of the Cochrane collaboration's effective practice and organisation of care group.

Noah, et al. (2023) study investigated the effect of user fees on access and waiting time in Nigeria. For access, the effect of user fees on both preventive and curative care; and the effect of user fees on waiting time at public healthcare facilities were examined. The wave 3 of the Nigerian General Household Survey (2015/16) data was used for users of public health facilities. Access to healthcare was modelled using utilization data in a logistic regression model while waiting time was through the Negative Binomial Regression Model (NBRM). The analyses showed significant effects of user fees on access to both preventive and curative care and on time spent waiting to make use of healthcare services. Individuals were able to access healthcare services regardless of amounts paid. Also, there was a non-negative effect of user fee imposition on waiting time. The study suggested that abolition of user fees will further raise access to healthcare, particularly because individuals can access healthcare services regardless of amounts paid. Also, government needs to address poor health service delivery for the individuals to enjoy value for the services they are paying for

Oluyinka, et al. (2021) studies the effects of Treasury Single Accounts (TSA) on the revenue generation of federal government parastatals in Ekiti state. The study specifically examined the effect of TSA on revenue generation of Federal University Oye-Ekiti, Federal Teaching Hospital Ido, Federal Road Safety Commission Ado-Ekiti and Federal Polytechnics Ado-Ekiti. The study revealed that TSA has not enhanced the revenue generation among federal government parastatals in Ekiti state. Both Descriptive and inferential statistics were used. The descriptive statistics include mean, standard deviation, minimum and maximum while the study employed paired sample t-test for inferential analysis. The study reveals that TSA has not enhanced the revenue generation among federal government parastatals in Ekiti state. The study showed that TSA is counterproductive since average revenue generated after the implementation of TSA is lower than the average revenue that the parastatals generated before the implementation of TSA. The study recommended that the federal government of Nigeria should investigate the reasons why the TSA is counterproductive in Ekiti state and adequately monitor its implementation.

Aderemi, et al. (2022) study was to examine the influence of tax administration on government revenue generation of Osun State, Nigeria. The objectives are to evaluate the shortage of staff and inadequate training of available tax collectors on revenue generation and investigate how the improper records and account keeping of revenue officers affect the revenue generation. Descriptive survey design and purposive sampling technique were employed. A total of 187 respondents participated in the study. Questionnaires were used to gather the data while descriptive and inferential statistics were used to analysed data. The result showed that shortage and inadequate training of staff and improper records and accounting keeping had a negative and significant influence on revenue generation. The study



concludes that an effective tax administration system which will enhance revenue generation requires getting the right balance of personnel, policies, practice and laws to guide tax administration. The study recommended among others that tax officials and administrators should be exposed to adequate and continuous training; both at home and abroad, for a better understanding of recent domestic and international tax issues, which could then be utilized, to formulate successful tax administration strategies.

### **Theoretical Framework**

This study is anchored in Revenue Generation Theory, which examines the strategies and mechanisms through which organizations, both public and private, create income to sustain their operations and achieve their objectives by maximizing revenue through diverse streams such as sales, services, investments, and partnerships, while also considering government funding and public-private collaborations for enhanced financial stability and service delivery. Michael E. Porter's competitive strategy theories, particularly his value chain concept from "Competitive Advantage: Creating and Sustaining Superior Performance" (1985), underscore the importance of optimizing organizational activities to generate value and revenue, which is crucial for enhancing profitability. For the Nigerian Meteorological Agency (NiMet), implementing Revenue Generation Theory can inform strategic initiatives aimed at maximizing income through specialized weather forecasting, climate data services for sectors like agriculture and aviation, and consultancy services, thereby diversifying income sources, improving financial stability, and enabling reinvestment in operations, equipment maintenance, and staff training, ultimately fostering public trust and aligning with effective public financial management objectives.

### **Methodology**

This research employs a survey design using structured questionnaires to gather data from staff at the Nigerian Meteorological Agency (NiMet), targeting a sample size of 356 respondents derived from a population of 1,714 through stratified random sampling and the Yamane formula, with adjustments for non-responses. Data collection involved a two-month period using both physical and electronic questionnaires, and the instrument's validity was established through pilot testing and expert reviews, while reliability was confirmed with Cronbach's Alpha coefficients ranging from 0.760 to 0.803. The analysis employed Ordinary Least Squares (OLS) multiple regression to examine the relationship between revenue generation and public finance management performance, providing a framework for hypothesis testing and data-driven policy recommendations, with OLS being chosen for its robust and efficient statistical properties.

### **Data Analysis**

Out of 356 distributed questionnaires to staff at the Nigerian Meteorological Agency (NiMet), 331 were fully completed and returned, resulting in an effective response rate of 93.0%, while 25 copies were not returned, accounting for 7.0% of the total, and the improperly filled questionnaires were excluded from the analysis.

**Table 1: Descriptive Statistics**

|                    | N   | Minimum | Maximum | Mean   | Std. Deviation |
|--------------------|-----|---------|---------|--------|----------------|
| PFPM               | 331 | 1.00    | 5.00    | 3.7456 | .70509         |
| GG                 | 331 | 1.00    | 5.00    | 2.5372 | .71107         |
| UF                 | 331 | 1.00    | 5.00    | 3.9523 | .60143         |
| Valid N (listwise) | 331 |         |         |        |                |

Source: SPSS version 26

The descriptive statistics for the data analyzed from 331 respondents indicate that the Public Finance Management Performance (PFMP) had a mean score of 3.7456 with a standard deviation of 0.70509, reflecting moderate agreement among respondents; Government Grants (GG) had a lower mean of 2.5372 and a standard deviation of 0.71107, suggesting less favorable perceptions, while User/Service Fees (UF) scored higher with a mean of 3.9523 and a standard deviation of 0.60143, indicating a stronger positive response from participants regarding this revenue generation component.

**Table 2: Correlations**

|      |                     | PFPM   | GG    | UF     | CS     | IPP    | TD     |
|------|---------------------|--------|-------|--------|--------|--------|--------|
| PFPM | Pearson Correlation | 1      | -.069 | .306** | .334** | .438** | .522** |
|      | Sig. (2-tailed)     |        | .211  | .000   | .000   | .000   | .000   |
|      | N                   | 331    | 331   | 331    | 331    | 331    | 331    |
| GG   | Pearson Correlation | -.069  | 1     | .088   | .152** | .119*  | -.044  |
|      | Sig. (2-tailed)     | .211   |       | .109   | .006   | .030   | .427   |
|      | N                   | 331    | 331   | 331    | 331    | 331    | 331    |
| UF   | Pearson Correlation | .306** | .088  | 1      | .486** | .357** | .233** |
|      | Sig. (2-tailed)     | .000   | .109  |        | .000   | .000   | .000   |
|      | N                   | 331    | 331   | 331    | 331    | 331    | 331    |

\*\* . Correlation is significant at the 0.05 level (2-tailed).

The correlation analysis reveals several significant relationships among the variables: Public Finance Management Performance (PFPM) is positively correlated with User/Service Fees (UF) ( $r = 0.306$ ,  $p < 0.001$ ), Consultancy Services (CS) ( $r = 0.334$ ,  $p < 0.001$ ), International Partnership and Projects (IPP) ( $r = 0.438$ ,  $p < 0.001$ ), and Training and Development (TD) ( $r = 0.522$ ,  $p < 0.001$ ), indicating that as these revenue generation components increase, PFPM tends to improve; in contrast, Government Grants (GG) shows no significant correlation with PFPM ( $r = -0.069$ ,  $p = 0.211$ ), suggesting a lack of association, while GG does exhibit weak positive correlations with other variables, notably CS ( $r = 0.152$ ,  $p = 0.006$ ) and TD ( $r = 0.119$ ,  $p = 0.030$ ).

**Test of Hypotheses**

The regression is use to determine the causes and effect of dependent variables on the independent variable.

**Table 3: Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .583 <sup>a</sup> | .340     | .332              | .57633                     |

a. Predictors: (Constant), GG, UF

The model summary indicates that the regression analysis yields a correlation coefficient (R) of 0.583, suggesting a moderate positive relationship between the independent variables: Government Grants (GG) and User Fees (UF) and Public Finance Management Performance (PFPM); the R Square value of 0.340 signifies that approximately 34.0% of the variance in PFPM can be explained by these predictors, while the adjusted R Square of 0.332 indicates a slight adjustment for the number of predictors in the model, and the standard error of the estimate is 0.57633, reflecting the average distance that the observed values fall from the regression line.

**Table 4: Anova<sup>a</sup>**

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1     | Regression | 55.778         | 4   | 13.945      | 41.982 | .000 <sup>b</sup> |
|       | Residual   | 108.283        | 326 | .332        |        |                   |
|       | Total      | 164.061        | 330 |             |        |                   |

a. Dependent Variable: PFPM

b. Predictors: (Constant), GG, UF

The ANOVA table indicates that the regression model significantly predicts Public Finance Management Performance (PFPM), as evidenced by the F-value of 41.982 with a p-value of 0.000, which is well below the significance threshold of 0.05; this suggests that the combined effects of the predictors—Government Grants (GG) and User Fees (UF)—account for a substantial amount of variability in PFPM. The regression sum of squares is 55.778 with 4 degrees of freedom, while the residual sum of squares is 108.283 with 326 degrees of freedom, leading to a mean square for regression of 13.945. Overall, the results support the effectiveness of the model in explaining the variance in the dependent variable.

**Table 5: Coefficients<sup>a</sup>**

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|--------|------|
|       |            | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant) | .884                        | .250       |                           | 3.534  | .000 |
|       | GG         | -.098                       | .045       | -.099                     | -2.171 | .031 |
|       | UF         | .128                        | .061       | .109                      | 2.092  | .037 |

a. Dependent Variable: PFPM

Table 5 presents the coefficients for the regression model examine the relationship between Government Grants (GG), Users' Fees (UF), and Public Financial Management Performance (PFMP), with the hypotheses outlined for each predictor variable.

Starting with  $H_{01}$ , the coefficient for government grants (GG) is -0.098, with a significance level of 0.031, which is less than the alpha level of 0.05. This indicates a statistically significant negative effect of government grants on public financial management (PFM) performance in NiMet; therefore, we reject the null hypothesis, indicating that there is significant effect of government grants on PFM performance.

On the  $H_{02}$ , the coefficient for user fees (UF) is 0.128, with a significance level of 0.037, also less than the alpha level of 0.05. This signifies a statistically significant positive effect of user fees on PFM performance in NiMet; consequently, we reject the null hypothesis, indicating that there is significant effect of user fees on PFM performance.

### Discussion of Findings

Hypothesis one ( $H_{01}$ ) shows the significant negative effect of government grants (GG) on public financial management (PFM) performance suggests that while these grants may provide immediate financial support, they could also lead to dependency, reduced accountability, or inefficiencies within NiMet. This finding implies that reliance on government grants without complementary strategic measures might hinder the organization's financial performance, necessitating a re-evaluation of how these funds are managed and utilized. This finding is consistent with the studies of Rui (2021), Ogunsanwo and Kazeem (2022) and Aliu, et al. (2022) which study that government training has a positive effect on employee performance while a low relationship exists between lack of access to finance and employee commitment.

Hypothesis two ( $H_{02}$ ) shows the positive effect of user fees (UF) on PFM performance indicates that generating revenue through user fees contributes significantly to NiMet's financial sustainability and operational efficiency. This finding highlights the importance of diversifying revenue sources, as user fees can enhance budgetary planning and resource allocation, ultimately leading to improved financial management practices within the organization. This finding is consistent with the studies of Noah, et al. (2023) and Mylene and Natasha (2008) which found significant effects of user fees on access to both preventive and curative care and on time spent waiting to make use of healthcare services.

### Conclusion and Recommendations

In conclusion, the findings of this study reveal critical insights into the factors influencing public financial management (PFM) performance in the Nigerian Meteorological Agency (NiMet). The significant negative effect of government grants highlights the potential pitfalls of dependency on external funding sources, suggesting that NiMet must adopt complementary strategies to optimize the management and utilization of these grants. Conversely, the positive impact of user fees underscores the importance of diversifying revenue streams to enhance financial sustainability and operational efficiency, thereby fostering improved financial management practices. Based on the findings, the following recommendations are proposed:

1. NiMet should reduce reliance on government grants by exploring alternative funding avenues, such as public-private partnerships and international collaborations. Establish clear guidelines for managing and utilizing grant funds to enhance accountability and minimize dependency.
2. NiMet should continue to enhance and diversify its user fee structures by conducting market research to ensure fees are fair and competitive. Implement systematic budget planning that incorporates user fee revenues to bolster financial sustainability and operational efficiency.

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