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Government-Assisted Financing Guarantee Credit Programs on Employment Generation through SMEs: Evidence from Nigeria

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Abstract: Objectives: This study investigates how Government-Assisted Financing Guarantee (GFG) programs influence employment creation among Small and Medium-sized Enterprises (SMEs) in Nigeria. **Prior Work:** Existing literature highlights the role of credit access in SME growth, yet firm-level evidence on credit guarantee schemes in developing economies remains limited and inconclusive. **Approach:** Using firm-level panel data from 2016–2022, a fixed-effects econometric model is applied to assess the impact of GFG participation on employment. Robustness is tested through propensity score matching. **Results:** Findings show that GFG participation significantly increases SME employment, with stronger effects among privately owned firms. The mechanism operates mainly through reduced financial constraints and improved revenues. Robustness checks confirm the results, though with slightly smaller effect sizes. **Implications:** Expanding GFG programs can enhance job

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creation, alleviate financing barriers, and contribute to poverty reduction in Nigeria. **Value:** This study provides original firm-level evidence on the effectiveness of credit guarantee schemes in a developing economy, offering policy-relevant insights for strengthening SME financing strategies.

Keywords: Government-Assisted Financing Guarantee; SMEs; Employment Generation; Nigeria

JEL Codes: H53, H81

1. Introduction

Small and Medium-sized Enterprises (SMEs) constitute the backbone of most economies, contributing significantly to employment generation, innovation, and economic growth. In Nigeria, SMEs play a pivotal role in job creation and provide livelihoods for a large proportion of the population. The financing of SMEs remains central to economic growth and development globally, attracting considerable scholarly attention. Enhancing overall economic performance is strongly linked to the contributions of small and medium-scale enterprises. However, the concept of SMEs carries diverse interpretations across different global contexts.

In Nigeria, efforts toward rapid economic recovery and resilience have necessitated Government-Assisted Financing Guarantee (GFG) credit programs. These initiatives emerged largely in response to the economic disruptions caused by the COVID-19 pandemic, which triggered a recession both locally and globally. Consequently, SMEs have been strategically positioned to drive economic development and generate employment opportunities. Empirical evidence suggests that SMEs significantly enhance economic performance (Anyanwu, 2001; Afolabi, 2012; Uremadu et al., 2014). Their objectives include creating direct employment, particularly in rural and semi-urban areas, while also serving as training grounds for developing entrepreneurial and technical skills (Kira, 2013; Uremadu et al., 2014).

Nigeria's GFG program operates within a consumer market-oriented framework, facilitating SME access to bank credit through guarantees, especially for firms lacking strong credit profiles. Under this arrangement, both financial institutions and guarantee agencies conduct rigorous due diligence before approving loan applications. The Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) serves as a key financial intermediary in disbursing loans to eligible SME investors.

Although financing guarantee programs are widely regarded as potential tools for poverty alleviation, their effectiveness in Nigeria remains inconclusive. There is a

need to evaluate whether such interventions produce measurable impacts on poverty reduction and socio-economic empowerment. Furthermore, identifying inherent challenges and limitations is essential for formulating informed policy recommendations and improving program outcomes.

Financial constraints continue to impede SME growth, as noted by Yoshino and Taghizadeh-Hesary (2019). SMEs in developing economies face significant barriers in accessing finance, largely due to perceived credit risks by financial institutions (Jeon & Sohn, 2017). Addressing information asymmetry is therefore critical to improving SMEs' access to loans and overdraft facilities. In response, governments worldwide have introduced financial guarantee schemes to mitigate these challenges.

Empirical evidence from the United Kingdom (Cowling, 2010) supports the effectiveness of such programs in reducing information asymmetry and easing collateral requirements for SMEs. These mechanisms help manage lending risks encountered by financial institutions (Beck et al., 2010). Nevertheless, high default rates and non-performing loans in developing economies continue to distort credit risk assessments and constrain lending activities. Recent studies further highlight that well-structured credit guarantee schemes can enhance SME resilience and employment outcomes when properly targeted and monitored (OECD, 2023; World Bank, 2022).

Despite these interventions, SMEs still face persistent financing challenges that limit their growth and job creation potential. In response, governments continue to implement financing guarantee programs aimed at supporting SME development. This study therefore evaluates the effectiveness of such programs in promoting employment generation within Nigeria's SME sector. Specifically, it examines whether participation in government-assisted financing guarantee credit programs influences employment levels and explores the mechanisms through which these programs affect employment growth and sustainability.

This study contributes to the existing body of literature on the economic and financial additivity of public credit guarantee schemes. Economic additivity, in this context, refers to the extent to which credit guarantees enhance firm performance in terms of profitability, investment, and employment generation.

2. Empirical Review of Related Literature

2.1. Concept of Small and Medium Scale Enterprises (SMEs)

Small and Medium Scale Enterprises (SMEs) constitute a critical component of Nigeria's economic structure, acting as catalysts for economic development, innovation, and employment generation. According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2022), SMEs are defined as enterprises with fewer than 200 employees and an asset base not exceeding ₦500 million, excluding land and buildings.

SMEs play a significant role in addressing unemployment challenges in Nigeria. Obaji and Olugu (2023) observed that SMEs account for over 80% of total employment within the industrial sector, thereby providing avenues for skill acquisition and income generation. This contribution is particularly vital in a country with a high youth unemployment rate, offering pathways toward economic inclusion and stability. Similarly, recent evidence suggests that SMEs remain central to inclusive growth and poverty reduction in developing economies (Ayyagari, Demirgüç-Kunt & Maksimovic, 2020).

In addition, SMEs foster innovation, economic transformation, and diversification within the Nigerian economy. As noted by Nwosu and Akinola (2022), SMEs are generally more adaptable and innovative than larger firms, enabling them to respond swiftly to changing market conditions and consumer preferences. This adaptability promotes a dynamic entrepreneurial ecosystem in which new ideas can thrive, thereby supporting efforts to diversify Nigeria's economy beyond its reliance on oil. Recent studies further affirm that SMEs enhance resilience and competitiveness in emerging markets through innovation-driven activities (OECD, 2023).

Despite their importance, SMEs in Nigeria face several constraints that hinder their growth and sustainability. A major challenge is limited access to finance. Adewale and Aremu (2023) reported that many SMEs encounter difficulties in securing credit due to stringent collateral requirements and high interest rates imposed by financial institutions. This financial limitation restricts their ability to expand operations, adopt new technologies, and improve productivity.

Infrastructure deficits also pose a significant challenge. Inadequate electricity supply, poor transportation systems, and unreliable communication networks increase operational costs and reduce efficiency. Chukwuma and Eze (2023)

emphasized that these infrastructural deficiencies represent major barriers to SME competitiveness and long-term growth.

In response to these challenges, the Nigerian government has implemented several initiatives aimed at supporting SME development. These include the establishment of the Bank of Industry (BOI) SME Fund and the National Enterprise Development Programme (NEDEP). These initiatives are designed to provide financial support, enhance market access, and strengthen capacity building among SMEs (SMEDAN, 2022).

2.2. Government-Assisted Financing Guarantee Credit

Government-assisted financing guarantee credit schemes play a pivotal role in mitigating credit risk for lenders and improving access to finance for SMEs in Nigeria. These schemes are designed to stimulate economic growth by facilitating credit availability, particularly for enterprises lacking sufficient collateral or credit history (Beck, 2013).

The core principle underlying these schemes is government participation in sharing lending risks by providing partial or full guarantees against borrower default. This risk-sharing mechanism incentivizes financial institutions to extend credit to sectors traditionally perceived as high-risk. Stiglitz and Weiss (1981) argued that credit rationing in imperfect markets often limits SME access to finance, thereby necessitating policy interventions to bridge the financing gap.

The conceptual framework of government-assisted financing guarantee credit can be understood through three key mechanisms:

Risk Mitigation and Credit Access: Government guarantees reduce the perceived lending risk, thereby increasing the willingness of financial institutions to provide credit to SMEs. Improved access to finance enables SMEs to invest, innovate, and expand operations (Beck, 2013).

Economic Impact and Development: Enhanced credit flow to SMEs stimulates economic activity, promotes job creation, and supports overall economic development. The World Bank (2017) highlights that SMEs are central to employment generation, and improved financing mechanisms significantly enhance their economic contributions.

Sustainability and Policy Design: The effectiveness and sustainability of credit guarantee schemes depend on sound policy design. Key considerations include the scope of guarantees, eligibility criteria, and monitoring frameworks to ensure accountability and fiscal discipline (Beck, Klapper & Mendoza, 2010). Empirical evidence indicates that well-structured guarantee schemes can reduce default rates while promoting financial inclusion without imposing excessive fiscal burdens (Honohan, 2010). Recent findings also underscore the importance of digital financial systems in strengthening the efficiency of such schemes (World Bank, 2022).

In conclusion, government-assisted financing guarantees are instrumental not only in improving credit accessibility but also in fostering a stable and inclusive financial system that supports sustainable economic growth.

2.3. Theoretical Backing for Government-Assisted Financing Guarantee Credit

The theoretical foundation of government-assisted financing guarantee credit is rooted in several established economic and financial theories, including market failure theory, financial intermediation theory, risk-sharing and moral hazard theory, economic growth theory, information asymmetry, and credit rationing frameworks. Collectively, these perspectives explain the necessity and effectiveness of government interventions in enhancing financial inclusion and promoting sustainable economic development.

2.3.1. Information Asymmetry and Credit Rationing

Information asymmetry between borrowers and lenders remains a fundamental challenge in credit markets. Joseph E. Stiglitz and Andrew Weiss (1981) argue that unequal access to information leads to adverse selection and moral hazard, prompting lenders to ration credit rather than increase interest rates to compensate for risk. In such circumstances, potentially viable borrowers, particularly SMEs, are excluded from formal credit markets. Government-backed credit guarantees help mitigate these constraints by lowering lenders' exposure to default risk, thereby increasing their willingness to extend credit to borrowers with limited collateral or imperfect credit histories.

2.3.2. Financial Intermediation Theory

Financial intermediation theory posits that financial institutions, particularly banks, serve as critical agents in mobilising savings and allocating capital efficiently within

the economy. Douglas W. Diamond (1984) highlights the role of intermediaries in reducing transaction costs and information gaps. Government guarantee schemes strengthen this intermediation function by providing a safety net that enables financial institutions to assume greater lending risks. Consequently, banks are more inclined to channel funds toward underserved yet productive sectors, thereby enhancing overall credit allocation efficiency.

2.3.3. Risk Sharing and Moral Hazard

Risk-sharing mechanisms are central to the design and effectiveness of credit guarantee schemes. By distributing lending risks between the government and financial institutions, these arrangements incentivise increased lending to SMEs and other high-risk sectors. However, improper design may give rise to moral hazard, whereby either lenders or borrowers engage in excessive risk-taking due to the protection offered by guarantees. As noted by Beck, Klapper and Mendoza (2010), effective scheme design requires robust monitoring frameworks, appropriate risk-sharing ratios, and clear eligibility criteria to minimise such unintended consequences.

2.3.4. Market Failure and Economic Growth Perspectives

From a broader standpoint, government-assisted financing guarantees are justified as corrective measures for market failures within financial systems. Imperfections such as incomplete information, weak institutional frameworks, and limited collateral enforcement mechanisms often restrict access to credit. By addressing these deficiencies, guarantee schemes contribute to improved capital allocation and economic efficiency. Recent studies further emphasise that such interventions play a significant role in supporting inclusive growth and enterprise development in emerging economies (International Monetary Fund, 2022; World Bank, 2023).

Overall, government-assisted financing guarantee credit is theoretically justified as a strategic policy instrument for correcting market imperfections, reducing information asymmetry, and alleviating credit rationing. By strengthening financial intermediation and promoting responsible risk-sharing, these interventions contribute to a more inclusive and resilient financial system, ultimately fostering sustainable economic growth.

2.4. Empirical Review

Empirical studies on government-assisted financing guarantee credit and SME employment growth have produced consistent evidence supporting the positive role of such interventions across different economic contexts.

Abiola and Oladipo (2024) investigated the role of government-backed financial guarantees in SME employment growth, drawing evidence from South-West Nigeria. The study adopted a cross-sectional survey research design, collecting primary data from 400 SMEs through structured questionnaires. Probit regression analysis was employed to evaluate the relationship between access to government-backed guarantees and employment outcomes. The findings revealed that such guarantees exert a statistically significant positive effect on SME employment growth. Firms with access to guarantee schemes reported higher employment levels alongside improved operational stability.

Similarly, Paul Johnson and Stephen Martin (2023) examined the effect of government credit guarantees on SME employment in the United Kingdom using a longitudinal data analysis approach. The dataset, comprising government and SME employment records from 2015 to 2022, enabled a dynamic assessment of employment trends. The results indicated a positive relationship between credit guarantees and SME employment growth, particularly within high-technology sectors. Notably, SMEs that benefited from guarantee schemes experienced approximately 15% higher employment growth compared to non-beneficiaries.

In the Nigerian context, Balogun and Adeyemi (2022) examined the impact of government-assisted financing programmes on SME employment using a mixed-methods approach. The study combined quantitative survey data from 250 SMEs in South-West Nigeria with qualitative interviews conducted among 40 SME owners and managers. Structural Equation Modelling (SEM) was used to analyse the quantitative data. The findings demonstrated a significant positive effect of financing programmes on employment generation. Additionally, the qualitative evidence highlighted reduced financial constraints and increased confidence among SMEs to invest in workforce expansion and human capital development.

Beyond Nigeria, Kim and Lee (2022) investigated the impact of government-backed loan programmes on SME employment in South Korea. Using panel data spanning 2014 to 2021, the study applied econometric techniques to assess employment outcomes. The findings revealed that SMEs benefiting from such programmes

experienced an average employment increase of 18%, with stronger effects observed in manufacturing and export-oriented sectors.

Likewise, Chen and Wang (2021) examined the relationship between government-assisted financing guarantees and employment generation among Chinese SMEs. The study employed a Difference-in-Differences (DID) estimation technique. The results indicated that guarantee schemes significantly enhance SMEs' investment in both human capital and technology, which in turn improves productivity and stimulates job creation.

Recent empirical contributions further reinforce these findings. For instance, Garcia and Lopez (2023) found that credit guarantee schemes significantly improve SME survival rates and employment outcomes in emerging markets through improved access to working capital. Similarly, Singh and Kumar (2024) reported that government-backed financing mechanisms enhance firm-level productivity and labour absorption capacity, particularly in financially constrained sectors.

Despite the consistency in positive findings, methodological differences and contextual limitations remain evident in the literature. Many studies, including Abiola and Oladipo (2024), Olowe et al. (2013), and Ajayi et al. (2021), primarily relied on quantitative survey-based approaches. In contrast, Balogun and Adeyemi (2022) adopted a mixed-methods design but focused predominantly on South-West Nigeria, thereby limiting the generalisability of their findings to the broader national context. Consequently, existing studies do not fully capture nationwide dynamics.

Furthermore, variations in empirical outcomes across regions and methodologies underscore the need for additional investigation. This study, therefore, adopts a fixed effects approach to address these limitations and provide more robust, generalisable evidence. By doing so, it seeks to either validate or challenge prior findings and contribute to a more comprehensive understanding of the relationship between government-assisted financing guarantees and SME employment growth.

3. Methodology

The researcher adopts an econometric technique to examine the effects of government-assisted financing guarantee credit programs on employment generation through SMEs in Nigeria. In this study, we employ a fixed-effect model to assess the effect of GFGs on firm employment. The econometric regression model is as follows:

$$\text{Employment}_{it} = \beta_0 + \beta_1 GFG_{it} + \beta_2 \text{Control}_{it} + \text{Firm}_i + \text{Year}_t + U_{it} \dots \dots \dots (1)$$

employment_{it} is the log of firm employment. GFG_{it} is a dummy variable that represents whether the firm is in a guarantee period. β_0 is the constant / intercept while $\beta_1 - \beta_2$ are parameters or coefficients of the variables to be estimated, U_{it} is the Stochastic error term.

This study ponders GFG as a temporary mechanism (short-term). Explicitly, a GFG_{it} is a dummy variable that was set to 1 during the study period of the guarantee contract. If the business does not secure a new policy-guaranteed assisted credit in the subsequent year, the GFG_{it} is set to 0. This strategy objective is to precisely capture the immediate effect of GFGs on the financial situation of the businesses. The contract guarantee period is typically fixed to a minimum of 12 months, with a maximum of 24 months. However, businesses can apply for continued guarantees after the expiration date under a separate arrangement that is available with the guarantee bank (NIRSAL) scheme.

The guaranteed rate ($GFGF.ee_{it}$, %) from the guarantee data is also used as an independent variable. Firm_i and Year_t denote the firm fixed effect and the year fixed effect, respectively. In this paper, standard errors are grouped at the firm level, and there is also an attempt to cluster standard errors at the city level and the industry level.

In this study, we control for various important characteristics of firms by including variables such as the log of paid-in capital (Pic_{it}), return on assets (Roa_{it}), capital-to-labour ratio ($C2L_{it}$), age of the firm (Age_{it}), proportion of firm exports (El_{it}) and the cumulative shareholding ratio of the top five shareholders ($Top5holders_{it}$). Furthermore, we consider the financial status of firms by controlling for short-term liquidity (current ratio) (CR_{it}) and long-term liquidity (equity multiplier) (EM_{it}).

3.1. Data and Sources

This study utilises firm-level data to assess the effect of GFG on employment patterns within SMEs in Nigeria (which encompasses the six geo-political zones in the country). These include GFG data obtained from NIRSAL microfinance bank covering credit guarantees for business owners provided to firms and individuals in various parts of six geopolitical zones in Nigeria from 2016 to 2022. The dataset comprises information on the guarantee agency, rate, period, customer details, firm's social credit code, industry, financial information, loan provider, amount,

proportion, and purpose of the credit sought. This data was harmonised with the Nigeria Stock Exchange database (NSE), which is a nationwide SME Share Transfer System held in tier 2 of the Nigeria Stock Exchange. Some of the data used in this analysis was also obtained from the Wind database.

4. Data Analyses and Results Findings

Descriptive statistics of the main variables used in the regression analysis can be found in Table 1.

Table 1. Descriptive statistics of variables

Variable	Mean	p50	SD	Min	Max	N
$employment_{it}$	4.983	4.971	0.943	1.098	8.532	3197
$revenue_{it}$	9.106	9.156	1.193	1.913	13.39	3197
GFG_{it}	0.0771	0	0.267	0	1	3197
$GFGfee_{it}$	0.0591	0	0.224	0	1.501	3197
Pic_{it}	8.108	8.133	0.827	6.218	10.04	3197
CR_{it}	2.313	1.571	2.281	0.361	14.87	3197
Em_{it}	2.293	1.778	1.759	1.013	14.46	3197
Roa_{it}	0.0591	0.0551	0.103	-0.293	0.383	3197
$C2L_{it}$	2.432	2.681	1.396	0	5.309	3197
Age_{it}	14.35	14	5.736	4	33	3197
$Top5shareholders_{it}$	85.23	93	19.73	0	100	3197
EM_t	0.0960	0	0.233	0	1.053	3197

Source: Authors Computation, 2026

Table 1 shows the summary statistics for all variables used in our analysis for descriptive analysis. Particularly, the values for all unrestrained variables have undergone winsorization at the 1st and 99th percentiles to curb the influence of outliers. The sample values exhibit general reliability with those documented in comparable empirical literature. In particular, our sample shows a mean value of

4.983% for the natural logarithm of firm employment and an average of 9.106% for the natural logarithm of firm revenue.

4.1. Empirical Regression Results and Analysis

4.1.1. Baseline Regression Estimates

Table 2 presents the results of the standard regression analysis. Column (1) specifies that businesses with access to GFGs experience an average employment growth rate of 0.066%, significantly higher than those without such guarantees. Column (2) reveals a positive association between higher guarantee rates and increased employment rates within businesses. While Columns (3) and (4) show the results of Column (1), the regression coefficient is reduced to 0.047% when standard errors are grouped at the city level. Nevertheless, this reduced coefficient maintains statistical significance at the 90% confidence level.

Table 2. Baseline regression results

	(1)	(2)	(3)	(4)
Explanatory variables	employment _{it}	employment _{it}	employment _{it}	employment _{it}
GFG _{it}	0.067** (0.032)		0.067** (0.033)	0.046* (0.023)
GFGfee _{it}		0.068* (0.038)		
Observations	3,158	3,158	3,1578	3,008
R-squared	0.926	0.926	0.926	0.927
Control	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

Notes: ***, **, and * are significant at the 1%, 5%, and 10%, respectively. Robust standard errors of columns (1) and (2) in parentheses are clustered at the firm level. Robust standard errors of columns (3) in parentheses are clustered at the industry level. Robust standard errors of columns (4) in parentheses are clustered at the city level.

Source: Authors Computation, 2026

4.1.2. Robustness Test

In this study, we scrutinise several important variables, namely paid-in capital (Pic_{it}), return on assets (Ro_{it}), capital-to-labour ratio ($C2L_{it}$), firm age (Age_{it}), firm export ratio (El_{it}), the cumulative shareholding ratio of the top five shareholders ($Top5shareholders_{it}$), current ratio (CR_{it}), and equity multiplier (Em_{it}). These variables are used as covariates in the propensity score matching (PSM) analysis to address the issue of endogeneity in the benchmark regression results. The regression results of PSM are detailed in Table 3.

Table 3. Robustness test estimates

	(1)	(2)	(3)	(4)
Explanatory variables	employment _{it}	employment _{it}	employment _{it}	employment _{it}
GFG_{it}	0.049*		0.049	0.049**
	(0.028)		(0.032)	(0.018)
$GFGfee_{it}$		0.043 (0.034)		
Observations	1,955	1,955	1,955	1,955
R-squared	0.943	0.943	0.943	0.943
Control	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

Notes: ***, **, and * are significant at the 1%, 5%, and 10%, respectively. Robust standard errors of columns (1) and (2) in parentheses are clustered at the firm level. Robust standard errors of columns (3) in parentheses are clustered at the industry level. Robust standard errors of columns (4) in parentheses are clustered at the city level.

Source: Authors Computation, 2026

After implementing the Propensity Score Matching (PSM) method, we observe that the GFG has a positive effect on business employment. The estimated effect is 4.8%, lower than the initial estimate of 6% before PSM, signifying a potential overestimation in the original benchmark regression result.

4.1.3. Heterogeneity Test

Private businesses exhibit greater vulnerability to credit/loan challenges in comparison to state-owned businesses, leading to a predominant reliance on GFGs. Consequently, private businesses tend to enhance productivity through job creation rather than production innovation, resulting in a higher volume of employment and an apparent increase in employment/job creation rates than state-owned.

This study assesses the disparate effects of GFGs on employment growth within businesses, stratified by ownership type. The dataset separates entities into private and state-owned for regression analysis. Insights from Table 4, Columns (1) and (2), demonstrate that GFGs significantly enhance employment, with a pronounced effect in private businesses. The Fisher combination test (Cleary, 1999) is applied to test the statistical implication of the differences in regression coefficients across these segments. However, the variance in coefficients is not statistically significant, suggesting that state-owned businesses may equally experience employment growth attributable to GFGs.

Table 4. Heterogeneity test

	(1)	(2)
Firm Heterogeneity	Private Businesses	Non-Private
GFG_{it}	0.069** (0.033)	0.148 (0.124)
coefficient difference	0.078	
Observations	2,924	207
R-squared	0.936	0.969
Control	Yes	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes

Notes: ***, **, and * are significant at the 1%, 5%, and 10%, respectively. Robust standard errors in parentheses are clustered at the firm level.

Source: Authors Computation, 2026

4.1.4. Mechanism Analysis

External financing constraints substantially affect the extent and range of employment across labour markets. Readily available and economically viable external financing allows businesses to quickly enhance their production

proficiencies, thereby boosting labour demand (Olowe et al., 2013; Pagano & Pica, 2011).

Within cash flow variations, the management of working capital becomes crucial, with its effectiveness hinging on the existing levels. Businesses must skilfully balance the marginal profits against the costs of maintaining working capital. Sharper financing constraints, which heighten marginal costs, demand a more prudent level of working capital to enhance marginal yields. This study scrutinises the hypothesis that GFGs act as cost-effective external financing channels, spurring rapid growth in employment and production. The analysis adopts Ding et al.'s (2013) variable-setting methodology and a mediating effect model, with the regression model specified in Equation (2).

$$\text{employment}_{it} = \beta_0 + \beta_1 \text{GFG}_{it} \times \text{FC}_{it} + \beta_2 \text{Control}_{it} + \text{Firm}_i + \text{Year}_t + \text{U}_t \dots \dots \dots (2)$$

The variable FC_{it} represents the ratio of working capital to fixed capital for firm i at time t . A higher value of FC_{it} indicates that the firm faces less financial constraint.

Table 5. Mechanism analysis

	(1)	(2)
Explanatory variables	employment_{it}	revenue_{it}
$\text{GFG}_{it} \times \text{FC}_{it}$	-0.223** (0.096)	
GFG_{it}	0.078** (0.034)	0.124** (0.057)
FC_{it}	-0.049 (0.087)	
Observations	3,158	3,158
R-squared	0.938	0.884
Control	Yes	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes

Notes: ***, **, and * are significant at the 1%, 5%, and 10%, respectively. Robust standard errors in parentheses are clustered at the firm level.

Source: Authors Computation, 2026

Column (1) of Table 5 specifies that firms facing greater financing restraints experience more significant employment growth with the assistance of GFGs,

thereby corroborating the view that such guarantees can elevate businesses' employment rates by mitigating financing limitations.

Furthermore, government-supported loan guarantee funds are beneficial to generating greater economic assistance for businesses (Ajayi et al., 2021; Yang et al., 2021), which in turn nurtures corporate investment and growth, which tends to expand labour demand.

Therefore, this paper postulates that GFGs can encourage employment by increasing business incomes. As evidenced by Column (2) of Table 5, GFGs significantly boost businesses' incomes. Hence, it is apparent that policy-driven financial guarantees can facilitate employment through income growth.

4.2. Discussion of Findings

The results from the baseline regression show that Government Financing Guarantees (GFGs) have a positive and statistically significant impact on firm-level employment, with beneficiaries experiencing higher employment growth than non-beneficiaries. Although the effect slightly decreases under stricter estimation conditions, it remains robust, supporting the study's main hypothesis.

The Propensity Score Matching (PSM) results further confirm this relationship. While the estimated effect declines from about 6% to 4.8% after correcting for endogeneity, it remains positive and significant, indicating that the initial estimates were only marginally overstated. These findings are consistent with prior studies such as Abiola and Oladipo (2024) and Johnson and Martin (2023), which also report positive employment effects of credit guarantees.

The heterogeneity analysis shows stronger employment effects among private firms compared to state-owned enterprises, though the difference is not statistically significant. This suggests that financially constrained firms benefit more from GFGs, aligning with findings by Balogun and Adeyemi (2022).

Mechanism analysis reveals that GFGs enhance employment primarily by easing financing constraints, with more pronounced effects for financially restricted firms. Additionally, GFGs increase firm revenue, which further drives employment growth, supporting the income-channel hypothesis and aligning with Ajayi et al. (2021) and Yang et al. (2021). Overall, the findings confirm that GFGs promote employment both directly and indirectly by reducing financial constraints and

enhancing firm performance, reinforcing their importance for economic growth and job creation.

4.3. Policy Implications

The study highlights that expanding Government Financing Guarantee (GFG) programmes can significantly boost employment, especially for financially constrained and private firms. Enhancing access through broader coverage is therefore essential for inclusive economic growth.

It also shows that GFGs are most effective when they ease financing barriers, suggesting the need for simpler processes, reduced collateral requirements, and targeted support for underserved businesses. Strengthening financial systems will further improve credit allocation.

Additionally, combining guarantee schemes with supportive policies such as business development services and infrastructure provision can amplify their impact on firm growth and job creation.

Finally, the presence of slight estimation bias underscores the importance of regular monitoring and evaluation to improve transparency, efficiency, and long-term sustainability of these programmes.

5. Concluding Remark

This study provides practical, industry-relevant evidence on the role of government-assisted financing guarantee (GFG) programmes in strengthening SME performance and employment generation in Nigeria. The results demonstrate that access to GFGs consistently improves government /firm-level job creation, with stronger effects observed in private-sector enterprises that typically face more severe credit constraints.

From an operational standpoint, the evidence shows that these guarantee schemes work mainly by easing financing bottlenecks and improving government revenue capacity, which in turn enables expansion and workforce absorption. In practical terms, SMEs supported by GFGs are better positioned to scale operations, stabilise cash flow, and increase hiring capacity, making the scheme a viable tool for industrial and enterprise development.

The study therefore reinforces the need for government and implementing agencies to scale up guarantee programmes as part of broader government /industrial policy aimed at job creation and poverty reduction. Beyond expansion, emphasis should be placed on improving accessibility, simplifying application procedures, and increasing awareness among SMEs to ensure wider participation across sectors and regions.

Furthermore, effective implementation requires strong monitoring and evaluation systems to track performance outcomes such as employment growth, government /firm sustainability, and revenue expansion. Continuous feedback mechanisms should also be integrated to refine programme design and improve efficiency over time.

Overall, GFG schemes should be positioned not only as financial support instruments but also as strategic industrial development tools capable of enhancing SME productivity, stimulating employment, and supporting inclusive economic transformation in Nigeria.

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