

Reinvestment Allowance, Firm Attributes, and Financial Performance: Evidence from Quoted Industrial Firms in Nigeria

Okocha, Francis Yankee; Egbe, Solomon; Ogbonna, G. N
Department of Accounting
Faculty of Management Sciences
University of Port Harcourt, Choba, Port Harcourt, Nigeria

Abstract

The study examined how the reinvestment allowance affects industrial firms' financial performance on the Nigerian Exchange while considering firm attributes like size and leverage as moderating factors. This study employed a balanced panel approach with a dataset of 14 firms from the Exchange spanning 12 years from 2012 to 2023. Key performance indicators, including Return on Capital Employed (ROCE), Price Earnings Ratio (PER), and Tobin's Q, were computed to assess firm performance. This study conducted multiple regression analysis to assess the effect of reinvestment allowance on the computed indicators. Findings indicate that reinvestment allowance positively and significantly affects ROCE and Tobin's Q, implying that harnessing such allowances enhances both operational and market performance perception of the firm. Nevertheless, the allowance does not have any significant effect on PER, implying that there are no important impacts on the market expectation of earnings. Further, the analysis reveals firm size as a positive moderator, increasing the impact of reinvestment allowance on firm performance. Conversely, leverage functions as a negatively moderating factor, indicating that increased levels of debt might diminish the positive impact of the allowance on firm performance. For tax policymakers and financial managers striving to reconcile tax incentives with sustainable growth, these conclusions are quite critical. This research contributes to the discourse on tax strategy in conjunction with corporate finance by optimizing investment decisions and enhancing the firm's value.

Keywords: Reinvestment allowance, financial performance, firm attributes, ROCE, Tobin's Q, Nigeria

1.0 Introduction

Tax incentives are increasingly being employed by government policymakers in many developing economies including Nigeria, to attract investments, stimulate industrial growth, and improve private sector performance (Oyerogba et al, 2024). One such incentive is the reinvestment allowance which allows firms to reclaim a portion of taxable profit equaling to profit claimed as tax when capitalized. This policy is of particular importance in Nigeria's manufacturing and industrial sectors, which are core to national development priorities yet continue to grapple with numerous operational challenges including high cost of doing business, infrastructure deficits, and limited access to long-term capital (Adefeso, 2018; Ohaka & Agundu, 2012).

Reinvestment allowance seeks to enable firms to reduce borrowing by financing themselves with retained earnings channeled into productive investments. The logic here is that lowering the tax burden on profits that firms reinvest into the business will improve cash flows and bolster scaling, acquisition of technology, and competitiveness. This logic explains the Nigerian government's consistent tax policy of granting tax reliefs aimed at encouraging reinvestment as a means to increase industrial output. The real question, however, is whether these incentives are effective in enhancing financial performance. This question remains open for debate among scholars and policy experts.

Previous empirical studies have conducted conflict research on the effectiveness of tax benefits in Nigeria. For example, while Lawal et al. (2022) and Uwuigbe et al. (2016) argue that fiscal incentives such as capital allowances and reinvestment provisions have resulted in profitability and expansion of businesses, other scholars like Babajide (2013) and Chukwudi (2015) do not share these views. These earlier studies argue that structural problems, including inconsistent tax frameworks, exorbitant infrastructure costs, and weak enforcement mechanisms, negate the benefits these incentives might bring. Furthermore, some researchers argue that tax reliefs are more advantageous to larger companies with stronger administrative capabilities, with small and medium-sized enterprises (SMEs) being unable to fully access the benefit (Ngure, 2018; Gatsi et al., 2013).

Another problem is the lack of balance between the government's spending and the revenue that comes in from such spending. Nmehielle (2022) estimated that Nigeria loses about ₦455 billion every year with tax incentives and waivers, leading to concerns about the effectiveness and efficiency of these programs. Notwithstanding these concerns, there is scant empirical evidence proving whether reinvestment allowances really bolster financial performance at the firm level, especially in the industrial goods subsector, which is crucial to national manufacturing.

In addition, many studies seem to group tax incentive policies as a single or composite variable without separating the individual effects of reinvestment allowance as a standalone policy. Also, firm-specific determinants such as size and its financing structure, likely to determine the degree of effectiveness with which reinvestment incentives are put to use, are largely ignored. This creates a dangerous gap in the literature, which makes it difficult for policymakers to create well-targeted, tailored, and nuanced interventions that take into account the diversity among firms.

This study addresses these issues by focusing on the reinvestment allowance and analyzing its impact on three vital financial performance metrics: Return on Capital Employed (ROCE), Price-Earnings Ratio (PER), and Tobin's Q. Additionally, the study examines the moderating influence of firm characteristics such as firm size and leverage on this relationship. With this multidimensional focus, the study seeks to determine whether performance incentives are given in the form of reinvestment allowances as enhanced boosters of corporate performance or handed out as tax incentives lacking substantial developmental impact.

This study seeks to contribute to knowledge by providing disaggregated empirical evidence on reinvestment allowance, as opposed to generalized tax incentive frameworks. It also aims to incorporate firm-level characteristics to analyze varying impacts and provide useful evidence for policy implementation on tax reform and industrial policy in Nigeria. As such, this study aims to address a significant empirical void in the literature by examining how reinvestment allowance, moderated by firm-specific characteristics, impacts the financial performance of quoted industrial firms in Nigeria. In doing so, the study advances robust evidence for policy formulation and corporate action on the use of fiscal incentives.

2.0 Related Literature

2.1 Conceptual Framework

This study's conceptual framework provides a systematic way to analyze the interplay between reinvestment allowance, firm attributes and the financial performance of the company. It draws on both economic and corporate finance theories to demonstrate the interaction of a given tax policy, in the form of reinvestment incentives, with some internal firm factors and the resulting financial performance.

The framework is premised on a central claim that the reinvestment tax allowance or incentive granted to firms allows them to save on tax, hence, investing more in capital expenditures. These capital expenditures should ideally yield improved productivity, efficiency in operations, and overall improvement in the performance of the firm. Despite the importance of the incentive, its impact varies across firms. Factors such as size and financial structure can influence a firm's ability to take advantage of the allowance. For example, large firms supported by a sound financial structure may easily access and fully capitalize on reinvestment incentives, unlike smaller or highly leveraged firms, which tend to be constrained.

The industrial sector of Nigeria is being analyzed using the framework provided by reinvestment allowance. This model is further strengthened from the context of resource-based theory that claims that companies with superior internal capabilities, such as better-managed systems and capital accessibility, can convert resources into enhanced performance. Here, the reinvestment allowance operates like an external resource; the firm's attributes determine the extent of its impact. Hence, the model takes reinvestment allowance as the independent variable, firm performance as the dependent variable measured with ROCE, PER, Tobin's Q and attributes firm size and leverage as moderating variables. The analysis through this model enhances the understanding of the impact of fiscal incentives on financial performance in the context of Nigeria's industrial sector.

2.1.1 Reinvestment Allowance

Reinvestment allowance is a tax incentive given to companies that reinvest their profits into capital investment projects. This incentive allows qualifying businesses to reduce their taxable income by a certain percentage of the profits that they have reinvested, thus lowering their tax burden. The main objective is to provide incentives for firms to raise their productive activities, adopt modern technologies, as well as stimulate employment through reinvestment instead of profit distribution in the form of dividends. This concerns Nigeria mostly in the area of manufacturing and industrial goods, where capital formation is critical for sustainability in the long run. The allowance helps reduce the tax burden on reinvested earnings, supports operational capacity increase, and serves as a financial lever boost without accruing debt or needing external financing.

Nonetheless, the impact of reinvestment allowance on an organization is shaped by factors such as lack of company awareness, bureaucratic effectiveness, and unique firm characteristics. Ohaka & Agundu (2012) observed that while the incentive has been beneficial to lots of firms, its utilization is frequently inconsistent, especially with small and medium enterprises (SMEs) who lack the necessary technical and administrative knowledge. Faith & Marion (2023) focused on how reinvestment incentives are more beneficial to firms when they are located in regions with stable infrastructure and favourable climate for investments. Thus, for the reinvestment allowance to meaningfully improve the financial performance of the firm, it has to be integrated with policy changes aimed at broadening access, equitable allocation, and modified distribution of incentives among the firms regardless of their sizes and financial structures.

2.2.2 Firm Performance

Firm performance is how an organization meets its financial and operational goals within a specified time frame. It is a multifaceted concept that captures a firm's resource utilization efficiency, profitability, shareholder satisfaction, and competitiveness in the market. For the purposes of this study, performance is measured with three core financial indicators: Return on Capital Employed (ROCE), Price Earnings Ratio (PER), and Tobin's Q. Each of these metrics offer distinct insights into the firm's financial health and investment attractiveness. ROCE measures a firm's capital efficiency by examining earnings relative to capital spending. PER reveals the market's view and compares valuation to the earnings while Tobin's Q looks at the firm's market value relative to the replacement cost of its assets. Together, these indicators provide an excellent assessment of how the allowance for reinvestment has resulted in improvement in performance. These metrics have been chosen because they capture overlapping internal operational efficiency and external market perception, both critical to analyzing the consequences of fiscal incentives.

2.2.2.1 Return on Capital Employed (ROCE)

ROCE measures the profitability of a company in terms of how efficiently it incurs capital in generating operating profits. It is computed by dividing profit by operating profit. Capital Employed, which is also referred to as Total Capital Employed, is defined as equity plus debt, less short-term liabilities. Improvement in ROCE indicates better productivity with capital

employed and good financial health of the unit. In considering the effect of a reinvestment allowance, this metric becomes crucial because it represents the return earned on the reinvested earnings. Provided that the allowance is utilized towards strategic investment, which includes investment in equipment, technology, or infrastructure, then improvement in ROCE will follow. Ohaka & Agundu (2012) corroborated this stating that firms that vigorously reinvest in productive assets tend to enjoy higher ROCE resulting from increased capacity and operational efficiency. In capital-intensive industries like manufacturing, ROCE is an essential metric of performance as it reflects not only profitability but also the long-term viability of the firm and prudent use of capital.

2.2.2.2 Price earnings ratio

The Price-Earnings Ratio (PER) is an indicator of market performance which compares the market price of a company's share with the earnings per share (EPS). It reflects investor expectations regarding the firm's future earnings potential. A high PER indicates that investors expect strong growth shortly. Conversely, a low PER may indicate that the company is undervalued or simply that there are concerns regarding the sustainability of earnings. With the context of reinvestment allowance, PER evaluates whether tax-encouraged reinvestments improve investor confidence and market sentiment or not. While operational enhancements may take a while to be visible in the ROCE, the reactions of investors to PER changes may be more instantaneous. Some researchers, like Lawal et al. (2022), argue that tax incentives, specifically a reinvestment allowance, can have a positive effect on market valuation as they signal growth intention. Others, like Babajide (2013), argue that inconsistent policy execution can erode confidence and lead to mixed PER results. For this reason, PER offers a blunt insight into the impact of tax-induced reinvestment on perceived firm value in the capital market.

2.2.2.3 Tobin's Q

This study also used Tobin's Q as a proxy for measuring financial performance. Tobin's Q is a measure of financial performance that evaluates how the market perceives a firm's assets within the context of the costs associated with acquiring them. A Tobin's Q ratio exceeding one signifies positive investor sentiment regarding the firm's future performance, suggesting that the firm is valued more than the cost of replacing its assets. On the other hand, a Q ratio below one indicates either an inefficient firm operation or an undervaluation of market assets. For the assessment of the effectiveness of reinvestment allowance, this metric becomes important since it depicts the market's confidence about the returns above average on reinvested capital. The post-reinvestment rise in Tobin's Q suggests abundant returns on investments and increased capital efficiency recognition. Olowo et al. (2020) state that tax incentives for reinvestments tend to affect Tobin's Q when funds are strategically reinvested into high-yield or growth assets. It captures a firm's relative efficiency and the corresponding external assessment, serving as a comprehensive indicator. To summarize, Tobin's Q establishes a crucial link between internal investments incited by tax incentives and external metrics of valuation, which underscores its significance as a performance evaluation measure for this study.

2.3 Reinvestment Allowance and Firm Performance

Reinvestment allowance serves as an encouragement for business firms to reinvest a portion of their profits into long-term productive assets at the firm level.

In particular, it allows companies to deduct qualifying expenditures that are made on plant, equipment, and infrastructure from their taxable income, thus lowering their taxes payable to the government. This improves cash flow and provides firms with greater financial motivation to scale their operations, update their assets, and increase their competitiveness steadily over the long run.

The concept of reinvestment allowance is based on the idea that lowering the cost of capital, through tax incentives, will increase investment in productive resources, which should lead to improved business results, especially in capital-intensive industries like manufacturing or industrial goods. For a nation like Nigeria, where obtaining reasonably priced credit is a challenge and companies have to bear the burden of soft and hard infrastructure, this form of tax incentive is vital not only to the sustainability of businesses but also to the growth of entire sectors.

There is a wide consensus among researchers about the benefits of reinvestment incentives on corporate performance, especially within the context of developing economies. As an example, Ohaka & Agundu (2012) noted how the reinvestment allowance benefited the Return on Capital Employed (ROCE) of manufacturing firms in Nigeria. The study highlights that firms that utilize this allowance tend to have better returns because the allowance boosts the cash flow available for operational and capital expenditure. Also, Akinyomi & Tasie (2011) stated that the allowance has a positive impact on firm performance by increasing the utilization of capacity, employment levels, and expansion of corporate assets.

In support of these claims, Faith & Marion (2023) emphasize the importance of reinvestment incentives in accelerating capital deepening within firms that prioritize sustained financial stability. Their study shows that firms achieving sustained profitability through business reinvestments have lower dependence on external funding. These findings are significant especially in the Nigerian context, where borrowing tends to be expensive due to high interest rates and volatile currency conditions (Mutwiri & Okello, 2015).

Although there are theoretical and empirical logic in support of reinvestment allowance, its practical use in Nigeria faces certain issues that could undermine its efficiency. Lack of awareness, bureaucratic red-tape, irregular tax policies, and poor tax information dissemination have all been noted as major obstacles (Babatayo & Adegbe, 2021). In to add, many small and medium sized businesses do not have the necessary technical knowhow or advisory services to deal with regulatory maze. This has resulted in a situation where large firms, who tend to be better served by tax professionals, have become the primary beneficiaries, thus deepening the disparity between categories of firms (Gatsi et al., 2013; Ngure, 2018).

In addition, the lack of adequate monitoring has resulted in some firms misappropriating or inflating their reinvestment claims, undermining the effectiveness of the policy. Ohaka & Agundu

(2012) suggest that the failure of the appropriate institutions to monitor and periodically assess reinvestment incentive policies makes it impossible for these policies to achieve their intended purpose of promoting productive investment. Furthermore, other systemic issues like poor infrastructure, structural over taxation, and volatile exchange rates, tend to make these incentives less effective (Chukwudi, 2015).

Even with these challenges, most researchers agree the reinvestment allowance can be strategically effective if integrated within an overarching industrial development plan. Particularly when paired with infrastructure spending and consistent macroeconomic conditions, it can catalyze the release of capital towards innovation, asset renewal, and expansion of capacity (Timah & Chukwu, 2023).

Thus far, the literature indicates that the reinvestment allowance policy has a significant potential to increase firm performance, especially in capital intensive sectors. However, its effectiveness depends on contextual factors such as the firm's size, level of financial leverage, tax compliance ability, and the overall administrative efficiency of the agencies responsible for its implementation. This research builds on these aspects in the context of the Nigerian industrial sector by studying the relationship between reinvestment allowance and some financial performance metrics which include ROCE, PER, and Tobin's Q, alongside firm-specific characteristics.

2.2 Firm Attributes

2.2.1 Size

Firm size as an attribute has been extensively studied about financial performance and corporate behaviour. It usually denotes the operational scope, resource potential, and the influence of the market that an organization commands. With regard to the utilization of tax incentives, particularly reinvestment allowance, firm size becomes critical as it determines the company's ability to harness, navigate, and fully leverage the advantages associated with such fiscal policies.

Larger companies tend to have more established internal assets, along with better management and more advanced financial systems. These factors combined allow for more strategic planning and proper handling of tax obligations (Choi & Wang, 2007). Larger companies are usually willing to go to greater lengths to receive tax incentives than smaller firms. For instance, large industrial companies are more likely to keep dedicated tax planning specialists or hire outside tax consultants to ensure compliance with tax regulations and make optimal tax decisions. This practice enables these companies to channel a greater portion of their retained earnings onto productive investments while enjoying reduced tax liabilities.

Due to previously discussed factors, greater operational scale usually translates to more stable cash flows and improved access to long-term financing. Enhanced access to financing permits greater reinvestment in capital, helping larger firms improve their long-term asset value and operational efficiency, as well as gain tax relief on reinvestment. On the other hand, smaller

firms may have some issues qualifying for tax relief incentives like reinvestment incentives or may simply lack knowledge of such policies (Ngunjiri, 2018).

From an investment viewpoint, larger firms tend to gain from economies of scale, thus lowering the average cost of operations and improving profit margins. Economic scale also improves the effectiveness of tax incentives because returned profits are more efficient to reinvest due to firm efficiency and market dominance. Research like that of Gatsi et al. (2013) indicates that firm size impacts how tax incentives are accessed and affects the financial impact, such as Return on Capital Employed (ROCE) or Tobin's Q.

Tax incentive access and impact depend on firm size; however, firm size does not automatically translate into a better financial impact. Internal factors such as capital structure, risk exposure, or other internal variables also matter significantly. A case in point is financial leverage which shows the degree to which a firm uses debt to fund operations. Unlike firm size which tends to provide strength, leverage introduces weakness that affect tax incentives and reinvestment decisions. The next section deepens this discussion by analyzing how leverage can either enhance or limit a firm's capacity to exploit reinvestment allowance and its financial impact in Nigeria's industrial sector.

2.2.2 Financial Leverage

The financial leverage of a firm will be determined by the amount of debt and bonds that it currently holds. Taking on more financial debt might be motivational as it opens avenues of expanding the business, but it can also be detrimental if the returns from the debt are low. Cost management is very crucial to the growth of industrial firms, especially when operating in capital-intensive sectors like manufacturing. Strategic reinvestment allowances for taxes can be a vital part of financial decision-making at this level.

Due to the current state of the Nigerian economy, many manufacturing companies face the challenge of economic volatility and interest rates. This leads to a situation where companies are forced to take on more loans to stay operational. The hefty financial load that comes with repayments also comes with fixed obligations that can stifle the growth potential of a company. Even if the government decides to aid the firm with tax reliefs, loans can become a double-edged sword when profits are hostage to debt servicing. Excessively high loans allow a small margin for growth and expansion, which forces many companies to declare bankruptcy. These fiscal challenges and their outcomes have been well documented by Mutwiri, S., & Okello, I (2015).

Evidence suggests that high financial leverage decreases the effectiveness of tax incentives directed toward reinvestment. For instance, Gatsi et al. (2013) reported that firms with a high debt-to-equity ratio were less inclined to fully utilize corporate income tax advantages due to liquidity constraints and a conservative financial approach. In the same way, Chukwudi (2015) said that heavily indebted firms tend to shift their focus toward short-term survival, resulting in stunted capital expenditures, even when there are compelling incentives.

In addition, firms may become reluctant to undertake large-scale reinvestment projects because heavily leveraged firms tend to focus on survival and risk-aversion. This is especially true in

countries like Nigeria, where the lack of infrastructure and uncertain policies make long-term investment extremely risky. In these contexts, the presence of tax incentives is unlikely to have a significant impact if firms are heavily leveraged, financially constrained, or unwilling to take risks (Ohaka & Dagogo, 2015).

On the other hand, moderate use of leverage can assist in financing business expansion, particularly when borrowing occurs in the form of debt capital and is used to invest in income-generating assets. However, this mid-range balance is hard to achieve. Firms must ensure that the profit from the reinvested capital, possibly enhanced by reinvestment allowance, outweighs the borrowing costs to sustain profitability as well as financial well-being. When this balance is thrown off, the advantages from reinvestment incentives can become counterbalanced by the drain of servicing debt.

All in all, while reinvestment allowance is aimed at facilitating capital and financial growth, the impact is not consistent for all firms. A firm's leverage position can either exacerbate or mitigate the effect of the incentive. Firms operating under low to moderate levels of leverage tend to be better able to take advantage of the reinvestment benefits because they retain a greater portion of earnings and are less constrained by cash flow. In contrast, deeply leveraged firms are likely to encounter considerable challenges both in terms of eligibility for and access to tax reliefs associated with reinvestment.

This study seeks to understand the influence of financial leverage, not only as a background factor but also as a possible moderator that affects the association between reinvestment allowance and financial performance. It contributes to understanding the internal factors that shape the reactions of industrial firms in Nigeria to fiscal incentives.

2.3 Theoretical Framework

This study is based on three interrelated theories which explain how reinvestment allowance and firm characteristics jointly influence financial performance. These include the Pecking Order Theory, Resource-Based View (RBV) of the firm, and Tax Incentive Theory.

2.3.1 Pecking Order Theory

The Pecking Order Theory, introduced by Myers and Majluf in 1984, states that companies have a hierarchy of preferences for sources of finance. Companies first use internal funds generated by profits (retained earnings). If more funds are needed, companies turn to debt financing. Equity financing is only used as a last resort. This theory applies to the current study because the attractiveness and the amount of internal funding available is largely determined by the reinvestment allowance.

Reinvestment allowance increases retained earnings available for reinvestment by allowing firms to reduce their tax burden when profits are reinvested into capital assets. As the theory states, firms would naturally prefer this method over external financing due to its lower risk and cost. Thus, reinvestment allowance supports the pecking order theory by encouraging the use of internal funding for further growth.

Concerning reinvestment allowance, a firm's financial health and access to internal capital tend to dictate how far they can benefit. In this context, company-specific features such as leverage become important. Firms with high leverage may have constrained flexibility to reinvest due to their earnings being largely allocated to debt service, thus rendering them unable to take full advantage of tax incentives.

2.3.2 Resource-Based View (RBV)

The Resource-Based View (RBV) of the firm, as put forward by Barney in 1991, suggests that a firm's sustainable competitive advantage and superior performance stem from its internal unique resources and capabilities. These resources are classified into two categories: tangible assets and intangible assets, which include organizational processes, knowledge, and financial mechanisms. In this study, firm size and leverage are considered internal traits that may affect a firm's ability to access and utilize the reinvestment allowance. Larger firms may possess the administrative capabilities, financial acumen, and strategic foresight to fully utilize tax benefits. On the other hand, smaller firms or those with high levels of debt may be too rigid or lacking the institutional know-how to respond to such incentives. With the RBV theory, this study underscores the fact that the success of fiscal incentives, such as reinvestment allowance, is reliant on the firm's internal capacity to implement their benefits, instead of solely the policy itself. This theory assists in understanding the moderating firm characteristics impact the reinvestment allowance and financial performance relationship.

2.3.3 Tax Incentive Theory

The Tax Incentive Theory is grounded within public finance and economic policy literature. It suggests that tax incentives utilize corporate action by changing the costs and benefits associated with investment decisions. Particularly, it suggests that if governments provide tax incentives for specific actions, such as profit reinvestment, then firms will take those actions to optimize efficiency or profitability. This theory is vital for this study because it explains the rationale behind the reinvestment allowance policy in Nigeria. It is assumed that corporations will respond positively to a lowered effective tax rate on reinvested earnings and increase growth-enhancing investments, thus improving financial performance. The theory provides a linkage between fiscal policy (reinvestment allowance) and firm-level results (ROCE, PER, and Tobin's Q).

The effects of tax incentives are not the same for every business. As discussed in earlier studies, for example Ohaka & Agundu (2012) and Gatsi et al. (2013), external factors as well as business-specific limits may aid or work against the intended policy objectives. This strengthens the motivation of this study to consider not only the reinvestment allowance's effect, but also how firm characteristics impact its effectiveness.

These three theories altogether with the Pecking Order Theory, which explains firms' preference for internal financing through reinvested profits, form the basis of the study. The Resource Based View Theory help explain the internal firm attributes and their influence on the tax incentives utilization, while Tax Incentive Theory suggests a policy-driven reason to expect the financial gains from reinvestment allowance. Bringing together these theories drives this study to use a

multi-theoretical approach to examine the impact of reinvestment allowance on the financial performance of quoted industrial firms in Nigeria, moderated by firm size and leverage.

2.4 Hypotheses Development

This study's hypotheses are formulated from a blend of theories, concepts, and prior research. Under the Pecking Order Theory, Resource-Based View (RBV), and Tax Incentive Theory, this study aims to determine the impact of reinvestment allowance as an internally financed tax incentive on a firm's financial performance—measured by Return on Capital Employed (ROCE), Price-Earnings Ratio (PER), and Tobin's Q. Also, firm-specific characteristics such as size and leverage are analyzed as moderators in the relationship. It is assumed that reinvestment allowance indeed reduces the tax liability associated with reinvested profits, thereby allowing firms to internally finance more productive investments. The framework indicates that the resulting tax savings can enhance financial performance, particularly when firms possess considerable internal capacity to capitalize on the benefit.

2.4.1 Reinvestment allowance and Return on Capital Employed

A firm's efficiency in generating operating profits from capital is measured through ROCE. It serves as a key internal performance indicator, especially for firms that rely on capital investments for long-term growth. According to the Pecking Order Theory, reinvested profits, which are incentivized by policies like reinvestment allowance, can finance capital investments. This leads to increased returns on capital. Several researchers have found this to be true. For example, Ohaka & Agundu (2012) studied manufacturing firms in Nigeria and found that those with reinvestment allowances had higher ROCE due to more effective utilization of retained earnings. Akinyomi & Tasie (2011) also found a positive relationship between reinvestment allowances and asset-based performance measures in Nigerian industrial firms. Conceptually, the reinvestment allowance should enable the firm to expand capital assets without taking on additional debt, enhancing operational capacity and ROCE.

Hypothesis One (H₁): For quoted industrial firms in Nigeria, reinvestment allowance significantly improves Return on Capital Employed (ROCE).

2.4.2 Reinvestment allowance and Price Earnings Ratio (PER)

The Price-Earnings Ratio (PER) indicates how investors keep track of a firm with its earnings. It is based upon prior performance and investor sentiment. Also, from the perspective of Tax Incentive Theory, the allowance for reinvestment may enhance market perception because it shows the firm has plans for long-term growth and capital development. PER can improve because the market is expected to rely on tax-induced reinvestment as a sign of good earnings. But this has not been confirmed. Lawal et al. (2022) noticed that the value of the firm can increase with tax incentives, but the impact on market variables such as PER tends to be postponed. Babajide (2013) noted that inconsistent incentive implementation seems to lower trust among investors, which causes market indicators like PER to respond more slowly than expected. Despite this, firms that reinvest retained earnings efficiently are perceived to have greater potential growth and thus attract investor interest.

Hypothesis Two (H₂): Reinvestment allowance positively increases P/E Ratio (PER) of quoted industrial firms in Nigeria.

2.4.3 Reinvestment allowance and Tobin's Q

As a measure of market valuation of a firm relative to the cost of replacing its assets, Tobin's Q serves as an important indicator regarding the efficiency with which a firm utilizes its resources. A Q value greater than 1 indicates that the firm is perceived by the market to be generating reasonable returns on its assets. The Resource-Based View (RBV) asserts that internal capabilities, such as efficient reinvestment, can result in a positive market performance. Empirical studies, including Olowo et al. (2020) and Timah & Chukwu (2023), demonstrate that tax incentives, particularly reinvestment allowances, have a positive impact on Tobin's Q, especially when the capital that is reinvested enhances asset productivity and profitability. In addition, firms that strategically plan the reinvest profits into core productive assets tend to experience greater market valuations. Thus, it is expected that tax policy supports capital investment that enhances operational performance and market value.

Hypothesis Three (H₃): Reinvestment allowance has a significant positive impact on Tobin's Q of quoted industrial firms in Nigeria.

2.4.4 Impact of Firm-Specific Characteristics (Size and Financial Leverage) on Financial Performance

Although the reinvestment allowance aims to assist all eligible firms, its benefits are firm-specific. From the Resource-Based View perspective, larger firms with sounder capital structures are theorized to make better use of reinvestment incentives. Firm Size enhances a company's capacity to discover, manage, and take advantage of fiscal stimuli. A greater firm size is associated with the possession of sophisticated financial and technical capabilities which enhance the performance resulting from the full exploitation of reinvestment allowance (Gatsi et al., 2013; Ngunjiri, 2018).

On the other hand, Financial Leverage can impose constraints. Profoundly leveraged firms are often constrained by low free cash flow due to high debt servicing. Hence, profit repurposing for reinvestment, even with favorable tax provisions, becomes challenging. Research by Chukwudi (2015) and Mutwiri & Okello (2015) showcase how excessive debt diminishes the ability to reinvest profitably, rendering tax incentives substantially less effective. These attributes are thus likely to either amplify or dampen the impact of reinvestment allowance on financial performance.

Hypothesis Four (H_{4a}): Firm size has a positive moderating impact on the relationship between reinvestment allowance and financial performance for quoted industrial firms in Nigeria.

Hypothesis Four (H_{4b}): The impact of financial leverage on the relationship between reinvestment allowance and the financial performance of quoted industrial firms in Nigeria is negative.

3. Methodology

3.1 Data and Sample

This research collected and analyzed secondary data from 14 industrial firms listed on the Nigerian Exchange Group as of December 2024. The study covers a period of 12 years from 2012 to 2023, excluding 2024 due to pending audit releases.

3.2 Variables

The dependent variables for this study are the return on capital employed (ROCE), price-earnings Ratio (PER), and Tobin's Q. The independent variable is reinvestment allowance (REINV). The moderating variables are firm size (FSIZE) and financial leverage (LEV).

Model Specification

The baseline regression model is as follows:

$$FP_{it} = \beta_0 + \beta_1 REINV_{it} + \beta_2 FSIZE_{it} + \beta_3 LEV_{it} + \beta_4 (REINV \times FSIZE)_{it} + \beta_5 (REINV \times LEV)_{it} + \mu_i + \varepsilon_{it}$$

Where:

FP_{it} : Financial performance indicator (ROCE, PER, or Tobin's Q)

REINV: Reinvestment allowance

FSIZE: Firm size

LEV: Financial leverage

$REINV \times FSIZE$: Interaction term for size moderation

$REINV \times LEV$: Interaction term for leverage moderation

μ_i : Unobserved firm-specific effect

ε_{it} : Error term

4 Results and Discussion

4.1 Descriptive Statistics

The aforementioned statistics offer a basic overview of the key variables of this study, including their distribution and central tendencies. Descriptive statistics also help one to understand the characteristics of the data and flag any outliers which might exist, thus providing a snapshot before deeper inferential analysis is done.

Based on data from the industrial firms in our sample, the average Return on Capital Employed (ROCE) recorded from 2012 to 2023 was about 11.6%. This reflects moderate operational efficiency. In simpler terms, for every ₦1 of capital employed, the firms earned roughly 11.6 kobo in profit before interest and taxes. While this demonstrates decent capital productivity, it also indicates that firms could improve their reinvestment strategies beyond the minimal thresholds that would qualify them for tax incentives such as the reinvestment allowance.

While the market valuation differed among the firms with a mean PER of 8.95, it also had a pronounced standard deviation of 5.43, suggesting that some firms were overvalued while others

were undervalued. This discrepancy could stem from differences in the fundamentals of the firms, expectations of the market, or the confidence of the investors at the time.

The average value of Tobin's Q was found to be 1.24, which is above the threshold of 1.0. This indicates that, in the average sense, the market valued the firms' worth higher than the replacement value of their assets. This is suggestive of perhaps investor optimism and confidence in the market in the firm's growth prospects. This finding is important because it suggests that the market may favour tax-incentivised reinvestment activities and perceive them favourably.

With regard to the key independent variable, Reinvestment Allowance (REINV), its average value was recorded at 3.18 billion naira; however, it had wide variation across firms and years, which indicates variability in allowance eligibility and reinvestment behaviour.

Firm Size (FSIZE) was measured as the natural logarithm of total assets and had an average of 8.46, which indicates that most firms in this sample were large and capable of undertaking significant capital spending. Furthermore, Financial Leverage (LEV), calculated as the ratio of total debt over total assets, also had a mean value of 0.48, on average suggesting that about half the firms' assets were debt financed.

The relatively high standard deviation for some variables also reflects differences between firms regarding operational practices, capital structure, and market performance, indicating that this dataset is appropriate for analyzing the moderating impacts of firm characteristics.

The descriptive results in the study have provided preliminary supporting evidence for the effectiveness of the reinvestment allowance as a performance improvement tool. The Tobin's Q values are favourable, and ROCE is moderate, suggesting that tax-supported reinvestments are likely enhancing efficiency and market valuation at the firm level. However, the wide variation of PER and leverage across firms indicates specific firm characteristics are very important, which justifies the analysis focus on size and leverage as moderating variables for further analysis.

Table 1: Descriptive Statistics of Study Variables (N = 168 firm-year observations)

Variable	Mean	Std. Dev.	Min	Max
Return on Capital Employed (ROCE)	11.60	4.21	3.05	19.45
Price-Earnings Ratio (PER)	8.95	5.43	2.11	21.87
Tobin's Q	1.24	0.38	0.76	2.15
Reinvestment Allowance (REINV) (Nbn)	3.18	2.06	0.41	8.72
Firm Size (FSIZE) [ln(Total Assets)]	8.46	0.65	7.22	9.85
Financial Leverage (LEV)	0.48	0.21	0.13	0.89

3.2 Correlation Matrix

In this study, a Pearson correlation examination was conducted to see the strength and direction of correlations between the variables. This method of analysis identifies possible preliminary

relationships among variables before a regression analysis is conducted. The findings are shown in Table 2.

ROCE correlates to Reinvestment Allowance with a moderate positive correlation of .437 ($p < .01$). This means that firms enjoying higher concessions tend to use their capital more efficiently. This supports the expectation that reinvestment in productivity, supported by tax incentives, improves operational performance. PER also shows positive correlation with REINV ($r = .295$, $p < .01$) though weaker than ROCE and Tobin's Q, suggesting that sometimes reinvestment behaviour is influenced by investor perception, though not strongly. Reinvestment Allowance also positively correlates with Tobin's Q ($r = .402$, $p < .01$), affirming earlier observations that market valuation increases when firms designate re-investment activities which are tax-advantaged. Firm Size (FSIZE) positively correlates with all three financial performance measures and with reinvestment allowance which confirms larger firms can more easily avail and utilize fiscal advantages.

In contrast, Financial Leverage (LEV) shows a negative correlation with all performance indicators and the reinvestment allowance. The most substantial inverse relationship is with ROCE ($r = -.287$, $p < 0.01$), suggesting that heavier debt loads may diminish capital efficiency and the willingness to participate in tax-advantaged reinvestment. In general, the correlation matrix substantiates the study's assumption and evidence that reinvestment allowance enhances performance and that certain firm-specific factors (size and leverage) significantly determine these results.

Table 2: Pearson Correlation Matrix

Variables	ROCE	PER	Tobin's Q	REINV	FSIZE	LEV
ROCE	1					
PER	.412**	1				
Tobin's Q	.361**	.489**	1			
REINV	.437**	.295**	.402**	1		
FSIZE	.323**	.270**	.317**	.459**	1	
LEV	-.287**	-.198*	-.233**	-.246**	-.308**	1

* $p < 0.05$, ** $p < 0.01$

4.3 Regression Analysis

This part of the research focuses on the results of the regression analysis, which was performed to investigate the impact of reinvestment allowance (REINV) on the financial performance of quoted industrial firms in Nigeria, considering firm size (FSIZE) and financial leverage (LEV) as moderating variables. The financial performance indicators analyzed include return on capital employed (ROCE), price-earnings ratio (PER), and Tobin's Q. Given the dataset comprising 14 consumer goods firms listed on the Nigerian Exchange Group from 2012 to 2023, panel data regression analysis was deemed suitable. The Hausman test was conducted to decide between using Fixed Effects or Random Effects models to determine which would be more appropriate. The outcomes of the analysis favoured Fixed Effects for ROCE and Tobin's Q, while PER was best explained using a Random Effects approach.

Table 3: Regression Results (ROCE, PER, Tobin's Q)

Variables	ROCE (FE)	PER (RE)	Tobin's Q (FE)
Constant	3.812**	4.265**	0.789**
REINV	1.146***	0.493	0.217**
FSIZE	0.764**	0.328*	0.115*
LEV	-2.098***	-1.561**	-0.452**
REINV × FSIZE	0.442**	0.251*	0.097*
REINV × LEV	-0.603**	-0.298*	-0.128*
R ²	0.572	0.446	0.498
F/Wald χ^2	16.27***	12.89***	14.04***
No. of Obs.	168	168	168

*p < 0.1; **p < 0.05; ***p < 0.01

The positive and important coefficient for REINV noted both for ROCE ($\beta = 1.146$, $p < 0.01$) and Tobin's Q ($\beta = 0.217$, $p < 0.05$) indicates that capital productivity and market valuation of the firm are enhanced with the use of reinvestment incentives. PER does show a positive value ($\beta = 0.493$), suggesting that it is influenced by REINV; however, PER is not significant, and therefore, a short-term impact on perception by shareholders as a result of reinvestment decisions should not be assumed. FSIZE is positively linked with all three performance measures, corroborating that larger firms tend to optimally utilize reinvestment incentives and subsequently translate them into financial performance. The significance across all models supports the resource-based theory, which argues that firms with superior internal resources (ring size) outperform other firms. LEV proves negative and significantly impacts all performance metrics, suggesting that heightened debt levels severely restrict the capacity to convert reinvestment spending to profit and value. This reinforces the hypothesis that firms with high levels of leverage focus on servicing their debt as opposed to expanding capital, which diminishes the benefit of reinvestment allowance.

The interaction term REINV × FSIZE is both positive and significant in all models, which suggests that firm size positively moderates the impact of reinvestment allowance on performance. On the other hand, REINV × LEV is significant and negative, meaning that financial leverage weakens the relationship between reinvestment and performance. The R² values range from 44.6% to 57.2% showing that a considerable amount of variance in firm performance can be explained by these models. F-statistics and Wald χ^2 tests confirming model robustness are significant at the 1% level.

Reinvestment allowance enhances ROCE and Tobin's Q ratios, which supports Hypotheses H₁ and H₃. It also has a positive impact on PER, though it is not statistically significant, which provides partial support for H₂. Firm size positively influences the impact of reinvestment allowance while financial leverage adversely affects it, fully supporting Hypotheses H_{4a} and H_{4b}.

4.4 Discussion of Findings

The focus of this study was to assess the impact of reinvestment allowance on the financial performance of quoted industrial companies in Nigeria, analyzing the moderating effects of firm

size and financial leverage. The firm's financial performance was assessed through return on capital employed (ROCE), price-earnings ratio (PER), and Tobin's Q.

The research results show that reinvestment allowances positively and significantly affect both ROCE and Tobin's Q. This means that firms are able to improve capital efficiency and are viewed more favourably by the market when they reinvest profits into productive assets and receive appropriate tax policy support. These results corroborate the determination of Ohaka & Agundu (2012), which concluded that tax-supported reinvestments enhanced the returns on invested capital. This also supports the pecking order theory, which states that tax-shielded internal funds are the most preferred for financing productive investments.

Reinvestment allowance's positive correlation with PER did not have statistical significance, however. This could suggest that the impact of reinvestment incentives on investor sentiment and expectations takes some time to materialize. Perhaps Nigerian stock market investors are more concerned with short-term earnings and macroeconomic forces than with reinvestment activities in the industrial sectors. This aligns with Babajide (2013), who remarked that tax incentives often are slow to show effect in market performance.

In terms of firm attributes, the size of the firm proved to show a quite a consistent and translational effect across/applied translation effect. Larger firms were comparatively more effective at translating the allowance for reinvestment into actual financial benefits for all performance metrics. This aligns with the resource-based view (RBV), which argues that firms with larger internal resources and capabilities tend to enjoy relatively better outcomes. Larger firms stand to gain due to more optimal tax strategies/___tax saving policies___, better access to capital assets, and strategic reinvestment policies, which enables them to fully maximize the tax incentive.

On the other hand, financial leverage proved to have a negative moderating effect. Heavily indebted firms received less allowance for reinvestment, probably because their earnings were heavily tied to debt servicing instead of asset acquisition. This outcome supports the theoretical worry that high leverage limits a firm Musatsi's ability to reinvest (also see Mutwiri & Okello, 2015; Chukwudi, 2015). Altogether, these conclusions bolster the theory that, while reinvestment allowance undoubtedly can enhance performance, its effects are moderated by firm characteristics, particularly size and leverage. The findings highlight the firm-specific approach and capital structure approaches to the success of public policy incentives.

5 Conclusion and Recommendations

5.1 Conclusion

This study analyzed the impact of the reinvestment allowance on the financial results of listed industrial firms in Nigeria, focusing on the role of firm size and financial leverage. The analysis showed that reinvestment allowance significantly improves capital productivity and enhances the market valuation of the firm, although its short-term impact on investor metrics such as PER is modest.

Tax incentives can indeed restructure policies toward improving firm performance, but their effectiveness is largely dependent on internal firm factors. As the study suggests, firms that are larger and have low to moderate leverage directly reap considerable financial gains from reinvestment incentives, unlike smaller and highly leveraged firms that could be constrained in their ability to take advantage of such policies.

These insights are both policy and academically relevant as they highlight the need to tailor and strategically apply tax incentives to suit the specific financial realities and capacities of firms.

5.2 Recommendations

These findings lead us to make the following suggestions. Policymakers need to improve the clarity, openness, and accessibility of the reinvestment allowance programs. There is a gap in the inclusiveness of these incentives, particularly to mid-sized firms, which may lack the requisite technical know-how. Industrial firms should embrace deliberate policies and focus on harnessing reinvestment allowance benefits by integrating tax-efficient capital budgeting strategies. Furthermore, firms need to optimize their capital structures to curb over-leverage which compromises their reinvestment capacity. Above all, Regulatory tax authorities should establish regular impact assessment frameworks to evaluate tax incentive programs with a particular focus on the firms benefiting from the reinvestment allowance to ensure proper usage in performance enhancement and alignment with national developmental goals. Lastly, Investors and industry analysts need to consider reinvestment activity as a component of evaluating a firm's value over time, especially in the industrial segments where capital investment cycles are prolonged yet attractive.

References

- Adefeso, H. A. (2018). Government Tax Policy and Performance of Listed Manufacturing Firms in Nigeria: Evidence from Dynamic Panel Data Model. *Zagreb International Review of Economics & Business*, 21(1)
- Akinyomi, O. J. & Tasie, C. (2011). The Impact of Tax Incentives on the Performance of Small scale Enterprises. *Adamawa State University Journal of Accounting Research*, 1(1), 181-188.
- Babajide, F. (2013). Do Fiscal Incentives promote investment? Empirical evidence from Nigeria. *Journal of Developing Areas*, 47(2)
- Babatayo, K. O. and Adegbe, F. F. (2021). Tax Incentives and the Growth in Sales Revenue of Small and Medium Enterprises (SMEs) in Ondo and Ekiti States, Nigeria: *International Journal on Data Science and Technology* 2021; 7(1)
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Choi, J., & Wang, H. (2007). The role of firm size in firm performance: Evidence from multinational firms. *Journal of International Business Studies*, 38(2), 119–139. <https://doi.org/10.1057/palgrave.jibs.8400255>

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- Chukwudi, F. N. (2015). Corporate income tax incentives and firm performance in Nigeria. *African Journal of Business Management*, 9(5), 132–140. <https://doi.org/10.5897/AJBM2015.7926>
- Faith K. M. & Marion N. (2023) Effect of Tax Incentives on Financial Performance among Manufacturing Firms in Kenya (A Case of Industrial Area, Nairobi), *African Tax and Customs Review* SSN(online) 2664-9535 (print) 2664-9527
- Gatsi, J. G., Gadzo, S. G., & Ameyaw, B. (2013). The effect of tax incentives on the performance of listed manufacturing firms in Ghana. *International Journal of Economics and Finance*, 5(10), 115–122. <https://doi.org/10.5539/ijef.v5n10p115>
- Lawal, A. I., Akinmulegun, S. O., & Omoh, G. (2022). Corporate tax incentives and market valuation of listed firms in Nigeria. *Journal of Accounting and Taxation*, 14(1), 11–19. <https://doi.org/10.5897/JAT2022.0491>
- Mutwiri, M., & Okello, N. (2015). Debt financing and investment decisions: Evidence from manufacturing firms in Kenya. *International Journal of Financial Research*, 6(2), 44–55. <https://doi.org/10.5430/ijfr.v6n2p44>
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information investors do not have. *Journal of Financial Economics*, 13(2), 187–221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Ngure, P. M. (2018). Tax incentives and performance of selected manufacturing firms in Kenya. *Unpublished MBA Project*.
- Nmehielle C. O. (2022). Tax Incentive Practices and Financial Performance of Listed Consumer Goods Firms in Nigeria. *International Journal of Economics and Financial Management (IJEFM)* E-ISSN 2545-5966 P-ISSN 2695-1932 7(5)
- Ohaka, J., & Agundu, P. U. C. (2012). Tax incentives for industry synergy in Nigeria: A pragmatic proprietary system advocacy. *African Research Review*, 6(3), 42–58. <https://doi.org/10.4314/afrr.v6i3.3>
- Ohaka, J., & Dagogo, D. W. (2015). Re-Investment Allowance, Investment Tax Credit, and the Reality of Corporate Cash Flow in Nigeria. *IOSR Journal of Economics and Finance*, 6(2)
- Olowo, G. B., Adebayo, T. S., & Okoro, A. J. (2020). Tax incentives and market value of firms: Evidence from quoted manufacturing companies in Nigeria. *Asian Journal of Economics, Business and Accounting*, 15(2), 36–49. <https://doi.org/10.9734/ajeba/2020/v15i230219>
- Oyerogba, E. O., Alamu, J. A., Olugbenro, S. K., & Sangodare, T. O. (2024). Tax incentives and

Timah, B. P. & Chukwu, G. J. (2021). Tax Incentives Influence on Corporate Earnings: Evidence from Quoted Manufacturing Companies in Nigeria. *Archives of Business Research*, 9(1).

Uwaigbe et al (2016). Tax Incentives and the Growth of Manufacturing Firms in Nigeria. *Medwell Journals*, 11(7)