

Strategy Implementation and Non-Financial Performance of Pharmaceutical Firms in Lagos State, Nigeria: The Moderating Role of Regulatory Compliance

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ABSTRACT

The study focuses on the influence of strategy implementation on non-financial performance of pharmaceutical companies in Lagos State, Nigeria, with special attention given to the moderating effect of regulatory compliance in the relationship. Grounded on the resource-based view and the contingency theory, the study applied quantitative cross-sectional research design. Data collection has been performed with the use of self-administered questionnaires distributed among 202 respondents proportionally selected from the total number of 406 employees of Fidson Healthcare Plc, May & Baker Nigeria Plc, and Neimeth International Pharmaceuticals Plc by means of stratified sampling technique. In order to calculate the sample size, Yamane (1967) formula was utilized. Data analysis has been performed with the help of Structural Equation Modelling (SEM) technique via SmartPLS, using bootstrapping with 5,000 resamples. As a result, the study found out that strategy implementation positively and significantly affects non-financial performance ($\beta = 0.257$, $p = 0.003$), and regulatory compliance positively and significantly affects non-financial performance ($\beta = 0.438$, $p < 0.001$) of pharmaceutical firms in Lagos State. On the other hand, the study found out that regulatory compliance does not significantly moderate the relationship between strategy implementation and the non-financial performance of pharmaceutical firms in Lagos State ($\beta = -0.088$, $p = 0.122$). The study, therefore, concludes that although both strategy implementation and regulatory compliance individually have a positive impact on non-financial performance, regulatory compliance does not moderate the relationship between strategy implementation and non-financial performance in the current study scenario. It is therefore recommended that the pharmaceutical industry needs to develop its strategic implementation and compliance abilities. This research is significant to the body of knowledge as it provides empirical evidence in the case of a developing country's pharmaceutical industry and explains the separate contributions of strategy implementation and regulatory compliance towards non-financial performance results.

Keywords: *Strategy implementation; non-financial performance; regulatory compliance; pharmaceutical firms.*

1. INTRODUCTION

The pharmaceutical industry holds a strategically crucial place in the framework of the health care system and economy of any nation, due to its essential contribution to making available medicines that are safe, efficient, and affordable. Apart from its importance for public health issues, the industry also makes an impact on employment creation, technology advancement, and industrial development, especially in developing nations like Nigeria (Adigwe, 2023). In Nigeria, it is the state of Lagos where pharmaceutical production, import, and distribution take place and where pharmaceutical companies are the largest in number in the whole country (GZ Industrial Supplies, 2025). Pharmaceutical companies face tough competition, fast changes in technology, instability in the supply chain, and increasingly strict regulations in order to protect public health and high quality of the product (Akinwale & George, 2023; Adegbite et al., 2024; Uford, 2026).

Though most companies in the pharmaceutical industry allocate large amounts of money to strategic planning, research indicates that performance results are more likely limited by the effectiveness of strategy implementation rather than by inadequate planning itself (Hitt et al., 2023; Wheelen et al., 2024). The strategy implementation process involves translating strategic plans into action via proper leadership, resource

distribution, communications, controls, and organizational integration (Mubanga & Lesa, 2024). In complicated and heavily regulated sectors like the pharmaceutical industry, the difficulties associated with implementing strategies become even greater due to considerations for compliance, consistency, and quality assurance (Yang et al., 2025).

There is growing evidence in contemporary strategic management literature to show that non-financial performance metrics are key predictors of corporate sustainability and competitive advantage (Kaplan et al., 2022). In the case of the pharmaceutical industry, such measures as innovation ability, consistency in quality, customer trust, commitment of employees, efficiency, and legitimacy are especially relevant (Uford, 2017; Subačienė et al. 2025). All these metrics are critical to shaping stakeholder trust, regulation decisions, and product acceptance; hence, important for corporate survival in the highly risky and unforgiving environment (Chaithanapat et al. 2022; Umoh, 2021). Thus, research into the role of strategy implementation in affecting non-financial performance has gained significant academic interest recently.

Regulatory compliance emerges as a key characteristic within the pharmaceutical sector and can be considered a significant context-based variable that could influence organisational performance (Nassè et al., 2025). Within the Nigerian environment, the pharmaceutical sector has been exposed to rigorous regulatory scrutiny pertaining to issues such as drug registration, Good Manufacturing Practices (GMP), pharmacovigilance, labelling, and distribution (Gambo et al. 2025; Umoh et al., 2024). The implications of non-compliance with such regulations go beyond mere legal requirements and extend into strategic considerations, as organisations may face repercussions including sanctions, product withdrawals, and reputational harm. As pointed out by Hassen et al. (2024), non-compliant strategic activities may hinder organisational goals despite proper strategic planning.

While the significance of regulatory compliance cannot be over-emphasised, existing empirical research in Nigeria has focused mainly on the direct effect of regulation on organisational performance while ignoring its moderating effect on the impact of other variables on performance. There has been very little research on the effect of regulatory compliance on the effect of strategy implementation on non-financial performance in the pharmaceutical industry. This is important because regulatory compliance could either reinforce or weaken the effect of strategy implementation on organisational performance (Akpan and Uford, 2023).

Based on the above gaps, the current study focuses on assessing the moderating effect of regulatory compliance on the effect of strategy implementation on the non-financial performance of pharmaceutical firms in Lagos State. The research combines theory and empirical analysis to provide a comprehensive understanding of the effect of regulatory compliance on strategy implementation in emerging markets.

2. LITERATURE REVIEW: Conceptual Review, Theoretical Foundation and Hypotheses Development

Strategy Implementation

The process of strategy implementation has evolved from an administrative practice to a crucial organizational skill in determining if the strategy becomes successful. Fuertes et al. (2020) have pointed out that this refers to turning strategic thinking into action by ensuring that organisational structures, systems, and departmental activities are coordinated towards meeting organisational objectives. Strategy implementation involves resource management, communicating strategic concerns, commitment from employees, and the monitoring of execution processes. Johnson et al. (2023) have highlighted that it is the means of embedding strategies within organizational behaviour and control for the achievement of strategic aims. Contrary to strategy formulation which mainly revolves around strategic analysis and choice, strategy implementation entails the process of execution and control (Tawse et al. 2023).

Non-Financial Performance

Non-financial performance measures are those qualitative and non-tangible performances of the organisation that, while not having financial metrics associated with them, play an important role in ensuring competitiveness and survival in the long run (Refmasari & Supriyono, 2019). For the pharma industry, examples of such performance metrics include innovation capabilities in drug research and development, quality management, efficiency, employee engagement, reputation and legitimacy (Flear, 2020). Non-financial performance metrics assume particular importance for those industries that have been heavily regulated, since

stakeholder confidence, safety and ethics are key factors impacting their performance. As stated by Kaplan & Norton (2022), non-financial performance measures those organisational performance aspects that serve as a foundation for subsequent financial success.

Regulatory Compliance

Regulatory compliance is defined as the extent to which organisations comply with rules, regulations, and standards stipulated by appropriate regulatory bodies (Dunbar et al. 2023). For instance, in the Nigerian pharmaceutical sector, it is mandatory for firms to comply with regulatory demands of authorities like NAFDAC, GMPs, and any other prevailing international standard. With respect to contingency theories, regulatory compliance is an important contextual variable because it influences the relationship between firm capabilities and non-financial performance (Adeyeye et al. 2026). A high level of regulatory compliance is likely to strengthen strategy implementation processes through improved firm legitimacy, increased stakeholders' trust, and strict internal controls, thus improving non-financial performance. On the contrary, low regulatory compliance tends to reduce or undermine non-financial performance through sanctions and other forms of adverse impacts (Rasaei, 2026).

Theoretical Framework

This study is anchored on two major theories, the Resource-Based View (RBV) and the contingency theory. These theories provide a robust explanatory foundation for understanding how strategy implementation affects non-financial performance under varying regulatory conditions in the pharmaceutical industry.

The Resource-Based View (RBV)

Resource-Based View was developed by Barney in 1991 based on previous writings by Penrose (1959) regarding the growth of a business. The RBV theory suggests that competitive advantages can only be achieved if organisations have valuable, rare, inimitable and non-substitutable (VRIN) resources and capabilities (Barney, 1991). Unlike other strategic theories which focus on industry structure, the resource-based view considers internal capabilities of organisations to be more important (D'Oria et al. 2021). The RBV model holds that the disparity between companies' performances comes as a result of variations in the resources that firms possess including leadership capabilities, organizational culture, technological platform and human resources (Chatzoglou et al. 2017).

The Contingency Theory

The contingency theory emerged in the 1960s and 1970s through works by theorists such as Burns and Stalker (1961), Lawrence and Lorsch (1967), and Fiedler (1964). According to the theory, management practices cannot be applied without modification to all types of businesses; rather, their effectiveness relies on a fit between the internal processes of the organisation and external environment (Pacheco-Cubillos et al. 2024). The contingency theory focuses on alignment between organisational structures, strategies, and factors like technology and markets, as well as the degree to which an organisation is regulated (Sain et al. 2025). Therefore, external regulations exert substantial impact on managers' decisions and achievements.

Regulatory compliance is viewed as one of the crucial aspects of the external environment in this study. The contingency theory illustrates why compliance levels determine whether the effectiveness of strategy implementation contributes to improved non-financial performance within the pharmaceutical industry. Compliance increases the contribution of implementing organisational strategies due to improved legitimacy and performance.

Hypotheses Development

Strategy Implementation and Non-Financial Performance of Pharmaceutical Firms in Lagos State

Strategy implementation has been seen by many as one of the most important aspects affecting organisational performance especially in industries that are regulated and complex like the pharmaceutical industry. Effective implementation allows organisations to ensure that their strategies are successfully implemented by making use of effective resource deployment, coordination of employees, communication, and

performance management (Hitt et al., 2023; Wheelen et al., 2024). The implementation of effective strategies in the pharmaceutical industry results in benefits such as the ability to innovate and create new products, product quality, employee involvement, organisational effectiveness, and organisational reputation (Kaplan & Norton, 2022). Based on this argument, the study proposes the following hypothesis:

H₁: Strategy implementation has a significant effect on the non-financial performance of pharmaceutical firms in Lagos State.

Regulatory Compliance and Non-Financial Performance of Pharmaceutical Firms in Lagos State

The issue of regulatory compliance takes center stage when determining organisational performance in the pharmaceutical industry, where compliance is highly important in terms of ensuring that there are strict safety, quality, and ethical considerations in organisations (Nwoke, 2024). The process of regulatory compliance improves organisational legitimacy, builds customer trust, and reduces exposure to any risks faced by organisations (Dunbar et al. 2023). Research studies indicate that companies with compliance are likely to achieve better process discipline, higher morale among employees, as well as higher organisational reputation, resulting in better non-financial performance (Adegbite et al., 2023). In this case, Lagos State provides one example of a setting in which this will be seen to occur. Accordingly, this study hypothesises that:

H₂: Regulatory compliance has a significant effect on the non-financial performance of pharmaceutical firms in Lagos State.

The Moderating Role of Regulatory Compliance in the relationship between Strategy Implementation and Non-Financial Performance of Pharmaceutical Firms in Lagos State

Based on the theories of contingency and institutions, strategy implementation can be conditioned by the regulatory context in which companies find themselves. Compliance with regulations can facilitate the process of establishing a connection between the two variables under consideration due to greater standardization, accountability, and credibility within the organisation, leading to a more effective strategic implementation process (Scott, 2022). However, poor compliance with regulatory standards can harm strategies by means of regulatory punishment, disruption of processes, and negative reputational effects, diminishing the efficacy of the implementation activities (Adegbite et al., 2023). Based on this reasoning, the study proposes that:

H₃: Regulatory compliance significantly moderates the relationship between strategy implementation and non-financial performance of pharmaceutical firms in Lagos State.

3. METHODOLOGY

Quantitative research methodology was utilized in this study, whereby a cross-sectional survey design was used to investigate the association between strategy implementation, regulatory compliance, and non-financial performance in pharmaceutical companies in Lagos State. The cross-sectional design is ideal when studying associations between variables during one period since it is commonly used in organizational and strategic management research (Saunders et al., 2023). Data collection was done using a structured questionnaire distributed to employees of selected pharmaceutical companies.

Common method bias was addressed using various procedural strategies such as maintaining respondents' anonymity, distinguishing measures, and diversifying questions' content and responses (Castillo et al., 2025). Also, the Harman single-factor test was done, and it was found that no one factor could explain most of the variance. Construct validity was verified through confirmatory factor analysis, with the fit indices surpassing the acceptable levels. Composite reliability values were more than .70, while average variance extracted values surpassed .50 (Hair et al., 2022).

The population for this study included 406 employees from three prominent publicly-listed firms producing pharmaceutical products within Lagos State, namely Fidson Healthcare Plc, May & Baker Nigeria Plc, and Neimeth International Pharmaceuticals Plc. These companies were chosen for the reason that they are dominant players within the Nigerian pharmaceuticals industry, are exposed to regulation, and hold strategic

importance. Among the three firms, the breakdown of the population includes 217 employees from Fidson Healthcare Plc, 121 employees from May & Baker Nigeria Plc, and 68 employees from Neimeth International Pharmaceuticals Plc, giving a total population of 406. Sample size was obtained using the Yamane (1967) formula, which is suitable for estimating sample size for finite populations. As such, a sample of 202 participants was found to be adequate.

The research used a multi-stage sampling approach. In the first stage, the three pharmaceutical companies were chosen through purposive sampling. Secondly, the proportionate stratified sampling approach was used to make sure that the respondents were equally represented within the selected firms. Following the proportionate sampling technique, 108, 60, and 34 respondents were selected from Fidson Healthcare Plc, May & Baker Nigeria Plc, and Neimeth International Pharmaceuticals Plc, respectively, making a total of 202 respondents. Finally, questionnaires were distributed to respondents using convenient sampling techniques.

Primary and secondary data sources were used to collect the data. For the purpose of collecting primary data, the researcher developed a questionnaire based on the Likert scale from strongly disagree to strongly agree (1-5). As for the secondary data, data were collected from company documents, government policies, journal articles, and books as part of the literature review (Saunders et al., 2023).

The measurement variables were sourced from validated tools published in peer-reviewed literature. Strategy implementation was assessed by adopting well-tested measures from Men and Yue (2020) and Mazzei et al. (2022). Regulatory compliance was assessed by adapting questions from Cuervo-Cazurra and Aguilera (2021), and non-financial performance indicators incorporated innovation, efficiency, employee engagement, and organizational reputation.

Data analysis involved the use of Structural Equation Modelling (SEM) via SmartPLS, employing a two-step process involving the assessment of the measurement model and the structural model, including moderation analysis. The bootstrap technique using 5,000 resamples was used to validate the robustness of the coefficients. The model fit indices met recommended standards, and the reliability and validity tests were carried out following SEM best practices (Hair et al., 2022).

Data Analysis

Measurement Model Analysis

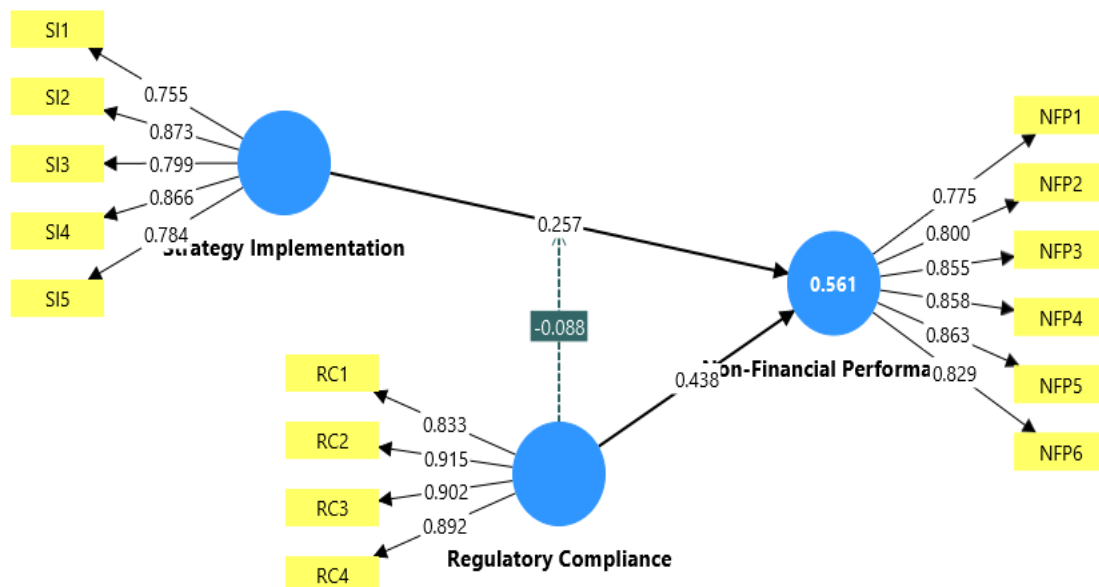


Figure 1: Measurement Model
 Source: SMARTPLS Output

Table 1: Construct Validity and Reliability

Variables	Items	Loadings	CR (rho_a)	AVE
Strategy Implementation	SI1	0.755	0.888	0.667

	SI2	0.873		
	SI3	0.799		
	SI4	0.866		
	SI5	0.784		
Regulatory Compliance	RC1	0.833	0.913	0.785
	RC2	0.915		
	RC3	0.902		
	RC4	0.892		
Non-Financial Performance	NFP1	0.775	0.917	0.690
	NFP2	0.800		
	NFP3	0.855		
	NFP4	0.858		
	NFP5	0.863		
	NFP6	0.829		

As Table 1 indicates, all the research constructs have adequate levels of reliability and convergent validity. All the factor loadings for the measurement items are greater than the critical value of 0.70, meaning that they measure the corresponding construct effectively. Composite reliability (ρ_a) scores for strategy implementation (0.888), regulatory compliance (0.913), and non-financial performance (0.917) are also greater than the minimum standard of 0.70, which means that there is good reliability in the data. Moreover, all AVE values of constructs exceed 0.50, implying that all the constructs account for more than 50% of their indicator variances.

Table 2: Discriminant Validity (Heterotrait-monotrait ratio [HTMT] – Matrix

	1	2	3	4
1. Non-Financial Performance				
2. Regulatory Compliance	0.750			
3. Strategy Implementation	0.669	0.656		
4. Regulatory Compliance X Strategy Implementation	0.584	0.572	0.631	

As presented in Table 2, the discriminant validity test based on the HTMT ratio yields an HTMT value for all constructs lower than the acceptable level of 0.85. It implies that the constructs utilized in this study are empirically unique and not measuring similar variables. Particularly, the HTMT values for non-financial performance, regulatory compliance, implementation of strategy, and the interaction effect variable fall within acceptable levels, implying that there is no problem of construct overlap. Thus, discriminant validity has been demonstrated adequately.

Table 3: Model Fit

	Saturated Model	Estimated Model
SRMR	0.094	0.092
d_ULS	1.049	1.021
d_G	0.576	0.610
Chi-square	333.578	325.507
NFI	0.741	0.747

In Table 3, the fit indices for the saturated and estimated models are given and it indicates that there was an acceptable model fit for the proposed model compared to the observed data. Both the SRMR values of 0.094 and 0.092 were below the threshold value, suggesting a good fit of the model. The values of the discrepancy measures (d_ULS and d_G) were also relatively low, which indicates little difference between the observed and implied correlations from the model. Moreover, there was an improvement on the Chi-square values in the

estimated model, with the NFI values of 0.741 and 0.747 being acceptable and moderate fit index values.

Structural Model Analysis

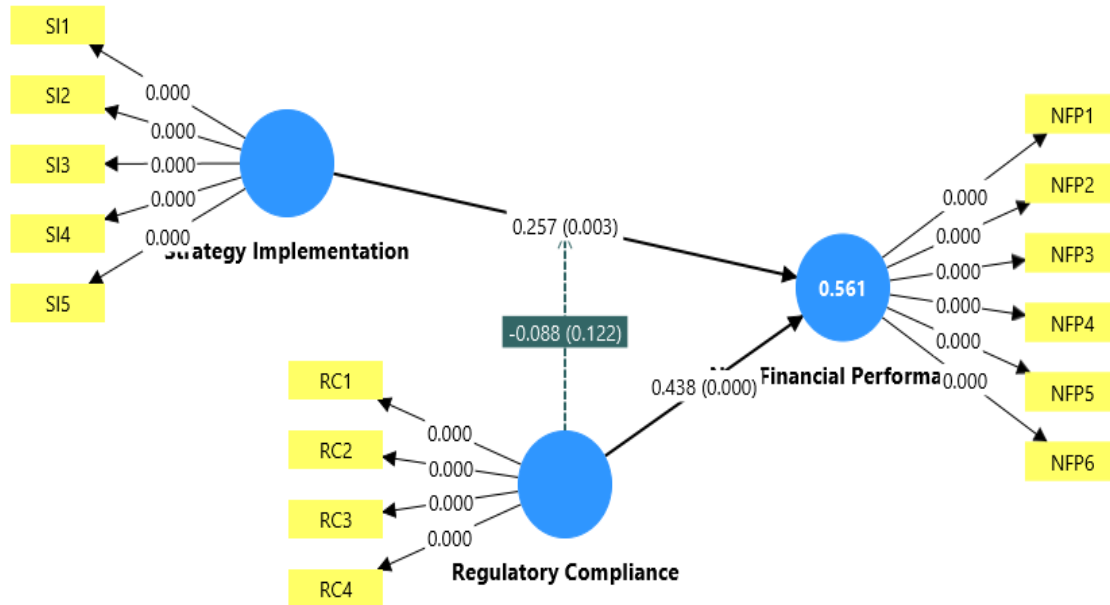


Figure 2: Structural Model Analysis
 Source: SMARTPLS Output

Table 4: Test of Study Hypotheses

Relationships	Beta	STDEV	T Stat	P Values
H ₁ : SI->NFP	0.257	0.087	2.940	0.003
H ₂ : RC->NFP	0.438	0.117	3.738	0.000
H ₃ : SI*RC->NFP	-0.088	0.057	1.545	0.122

Note: SI represents Strategy Implementation; NFP represents Non-Financial Performance; RC represents Regulatory Compliance; STDEV represents Standard Deviation; T Stat represents T Statistics; P Values represents Probability Values.

The outcomes of the structural model used to validate the research hypotheses are provided in Table 4. In relation to H₁, it is established that strategy implementation positively and significantly impacts non-financial performance ($\beta = 0.257$, $t = 2.940$, $p = 0.003$). This implies that improved strategies of implementation positively impact the non-financial performance of organizations. Therefore, H₁ is validated by the findings. In relation to H₂, regulatory compliance positively and significantly impacts non-financial performance ($\beta = 0.438$, $t = 3.738$, $p = 0.000$). It means that increased regulatory compliance contributes to higher non-financial performance of organizations. Therefore, H₂ is also validated by the study findings. Finally, in relation to H₃, strategy implementation and regulatory compliance have insignificant interaction effect on non-financial performance ($\beta = -0.088$, $t = 1.545$, $p = 0.122$). The implication is that regulatory compliance does not significantly moderate the relationship between strategy implementation and non-financial performance. Thus, H₃ is not validated.

Table 5: Coefficient of Determination

	R-square	R-square Adjusted
Non-Financial Performance	0.561	0.547

The coefficient of determination (R^2), which shows the degree to which the independent variables explain the variance in non-financial performance, can be observed in Table 5. Specifically, the R^2 value of 0.561 implies that strategy implementation and regulatory compliance included in the model explain 56.1% of the variation in non-financial performance of pharmaceutical companies. Additionally, the adjusted R^2 value of

0.547 suggests that there is a considerable amount of explanatory power of the model despite the presence of other independent variables included in it. Therefore, one can state that the amount of explanatory power of the model is relatively high, which implies that strategy implementation and regulatory compliance have an effect on non-financial performance.

4. DISCUSSION

Conclusions from this study indicate that strategy implementation has a positive impact on non-financial performance of pharmaceutical companies in Lagos State. The conclusions drawn from this study conform to the RBV theory that suggests that performance of organisations is influenced by internal capabilities that are valuable, unique, rare, and well organised. These capabilities include strategy implementation (Barney, 1991; Hitt et al., 2023). Also, it conforms to prior researches done where focus was laid on the execution capability rather than strategy development capability to ensure the achievement of organisational objectives, especially when working in dynamic industries (Wheelen et al., 2024). Implementation capabilities enable coordination, innovation capability, and operational efficiency that contribute to better non-financial performance outcomes in pharmaceutical firms.

Furthermore, the study revealed that regulatory compliance is positively related to non-financial performance. This research outcome is aligned with theories of institutionalism and contingency, according to which firms working in highly regulated markets need to match their internal processes with external regulations in order to ensure organizational legitimacy and performance (Scott, 2022; Adegbite et al., 2023). Specifically, from the perspective of contingency theory, regulatory compliance may be considered a very important external factor influencing the manner in which organizations leverage their internal resources. The outcome of this study is consistent with previous research, suggesting that regulatory compliance leads to building trust, mitigating organizational risks, and enhancing organizational reputation (Poplazarova et al. 2020), especially in industries such as the pharmaceutical industry that rely on high safety and ethical standards.

On the contrary, it was discovered that the influence of regulatory compliance on the link between strategy implementation and non-financial performance is negatively insignificant. This means that although regulatory compliance contributes positively towards performance, it cannot improve the effectiveness of strategy implementation as proposed by the hypotheses. This outcome is somewhat contradictory to contingency theory predictions, which indicate that regulatory conditions will improve strategic process efficiency if they align with the internal context (Pyper et al. 2022). It could be because of the over-compliance with regulations within the Nigerian pharmaceutical industry due to high costs associated with regulatory requirements, which may cause rigidity in operations and decrease the effectiveness of the strategy implementation process. This idea is supported by previous research showing that regulatory burden in emerging economies may lead to bureaucracy issues hindering organizational performance (Adomako & Tran, 2026).

According to the RBV theory, what the results mean is that regulatory compliance is likely to act more like a hygiene factor than an augments of firm performance. It is important for survival and legitimacy; however, it does not add any value to the advantages associated with implementation strategies. Compliance can, therefore, be seen as something that constrains the firm externally in ensuring that operations are standardised without giving room for strategies to be implemented successfully. In this case, the results show that strategy implementation and regulatory compliance are both significant in influencing non-financial performance, but the relationship between them is not synergic in Nigeria.

Practical Implications

From the results obtained in this research study, it can be suggested that pharmaceutical companies operating in Lagos State need to focus more on enhancing strategy implementation mechanisms such as internal coordination, effective leadership, better communication system, efficient resource allocation, and technological advancements in order to improve their non-financial performances. It is important for the company's management to ensure that the development of strategies and their execution in accordance with well-coordinated performance monitoring systems and employee orientation are carefully considered. In addition, companies in the industry should keep emphasizing the need to comply with regulatory requirements since these play a critical role in improving non-financial performance. But due to the absence of significant impact

of regulatory compliance in this respect, companies need to maintain the right balance between regulation and efficiency by developing better compliance management systems. Moreover, regulatory authorities should also make some changes in their compliance processes to minimize unnecessary operational difficulties.

Contributions to Knowledge

The research findings can be seen as contributing to the literature on strategy and performance in several ways. Firstly, the study builds upon the RBV by establishing through empirical evidence that strategy implementation is an internal capability that is highly effective in boosting non-financial performance in the pharmaceutical industry especially in an emerging market setting. Secondly, the study makes a contribution to contingency theory by focusing on regulatory compliance as a variable in the external environment that affects organizational performance. Thirdly, the study brings to light new empirical data about the pharmaceutical industry in Lagos state, which is still under-explored territory in the field of strategy and performance studies. Lastly, by looking into the role of regulatory compliance as a moderator, the study sheds light on the ongoing controversy surrounding the effect of regulatory frameworks on strategic performance – that compliance is more of an independent performance indicator rather than a moderator.

Limitations and Future Research

This study has some limitations that should be taken into account while evaluating the results. First, the cross-sectional research design does not allow one to establish any causal relationships between dependent and independent variables due to the fact that all data have been obtained during a particular period of time. Second, self-reported questionnaire data have been used in this research. The researcher made an effort to avoid response bias and common method variance in the study; however, these phenomena cannot be totally excluded. Finally, the research was conducted in only three publicly quoted pharmaceutical companies situated in Lagos State. In order to improve the external validity of the findings, the future study could be designed according to the longitudinal research methodology. Moreover, other regions or industries could be used for comparison purposes in further investigations.

5. CONCLUSION

Finally, this study sought to assess the impact of strategy implementation on the non-financial performance of pharmaceutical organizations in Lagos State, considering the regulatory compliance of such organizations as the moderating variable. According to the results obtained, strategy implementation has a positive impact on the non-financial performance of the pharmaceutical organization, while regulatory compliance has a significant direct impact on the non-financial performance of the firm. Nevertheless, the role of regulatory compliance is not moderated by the impact of strategy implementation on the non-financial performance of pharmaceutical firms. Using the RBV and the contingency theory, it was possible to conclude that internal capabilities, such as effective strategy implementation, play an important role in increasing non-financial performance, while regulatory compliance plays an important role but independently from strategy implementation.

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