Implementation and Impact of the Presidential Order on Exemption of Payment of Import Duty and VAT for Critical Pharmaceutical Inputs

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ABSTRACT

Background:

Nigeria's dependence on imported medicines continues to undermine its potential in the global pharmaceutical space. This challenge has resulted in strategic interventions such as the 2025 Presidential Executive Order exempting selected pharmaceutical inputs from import duties and value-added-tax (VAT). This study evaluates the early implementation and perceived impact of the exemption policy among beneficiary pharmaceutical manufacturers.

Methods:

A cross-sectional survey was conducted among 87 pharmaceutical manufacturers listed as beneficiaries of the Executive Order. A structured questionnaire was used to collect data on awareness, implementation, challenges, and policy outcomes. Responses were collected both online and in person, targeting stakeholders in technical, regulatory, and executive roles. Data were analysed using SPSS version 27, with descriptive and inferential statistics employed to identify trends and associations ($p < 0.05$).

Results:

A 73.6% response rate was recorded from the collected data. Awareness of the Executive Order was high (92.1%), but active engagement such as attendance at policy-related seminars remained modest (53.1%). Fewer than 40% of respondents reported tangible improvements in production capacity, innovation, or investment. Major barriers included excessive bureaucracy (71.9%), sub-optimal inter-agency collaboration (43.5% neutral), and inadequate training (70.3%). Significant associations were observed between years of experience and perceived effectiveness of policy implementation ($p = 0.013$). Respondents strongly recommend improved monitoring, inter-agency digital clearance systems, capacity-building programmes, and policy extension beyond the initial two-year window.

Conclusion:

While the Executive Order is a major step towards industrial reform, its potential remains underutilized. Early findings underscore the need for clearer implementation mechanisms, technical support, and regulatory coherence. Embedding these reforms into Nigeria's broader pharmaceutical development agenda is essential for long-term sector resilience and improved access to locally produced medicines.

Keywords: Pharmaceutical manufacturing; Executive Order; VAT exemption; Local production; Policy implementation

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INTRODUCTION

Nigeria's pharmaceutical industry holds strategic importance in advancing national healthcare security and the nation's general economic advancement (Okereke *et al.,* 2021). Despite being one of Africa's largest markets for pharmaceuticals, the country still imports approximately 70% of its medicines and active pharmaceutical ingredients (APIs) (Adeyeye, 2018; Adigwe, 2023). This dependence has long constrained the affordability, availability, and sustainability of essential medicines, with significant implications for public health outcomes and national development (Atanda *et al.,* 2025).

To address this chronic reliance and boost local production, the Federal Government of Nigeria issued a Presidential Executive Order on exemption of payment of import duty and value-added-tax (VAT) for critical pharmaceutical raw materials. The Federal Ministry of Information and National Orientation confirmed that, based on Presidential directives, critical raw materials essential for pharmaceutical production will be exempted from import duty and VAT for two years (Federal Ministry of Information and National Orientation, 2025). Effective from 5th March 2025, the order provides a two-year exemption from payment of import duties and VAT on 875 designated critical raw materials for pharmaceutical production. The policy targets 87 pharmaceutical manufacturers**,** aiming to reduce manufacturing costs, boost local production, and attract new investments into Nigeria's pharmaceutical ecosystem. The Nigerian Vanguard Newspaper stated that the Nigeria Customs Service (NCS) implemented the exemption in line with President Bola Ahmed Tinubu's Executive Order, specifying the scope, duration (two years), and materials covered (Ujah, 2025). These include Active Pharmaceutical Ingredients (APIs), excipients, reagents, packaging materials, and components used in the manufacture of long-lasting insecticidal nets (LLINs), diagnostic kits, and essential medicines.

The implementation of similar fiscal policy instruments is consistent with global practices in promoting pharmaceutical self-reliance and have been instrumental in catalysing domestic pharmaceutical growth in other low and middle-income countries (LMICs). Between 2010 and 2020 Bangladesh leveraged similar tax exemptions to more than double its domestic drug output (Sampath, 2019; Islam *et al.,* 2018). Pakistan has over the last 10 years experienced an increased level of progress in their pharmaceutical sector (from USD 1.64 billion to USD 3.2 billion) owing to the implementation of favourable policies by its government (Khan & Rauf, 2024).

Several other LMICs have achieved a significant level of medicine access as well as notable growth in their pharmaceutical sector by promoting local production and the API industry (Khan & Rauf, 2024). For instance, under its 2017 pharmaceutical policy, India recorded a 15% rise in local API production within two years and has progressed to be a global player in the pharma industry (Cherian *et al.,* 2021; James *et al.,* 2021). A study by Marew *et al.,* (2022**)** examined Ethiopia's efforts to strengthen local pharmaceutical manufacturing through supportive strategies and reported a significant rise from 15–20% to around 25–30% of essential medicines produced locally.

However, the success of these policies depends not only on their design but also on their coherence, effective implementation, inter-agency coordination, and stakeholder engagement. These critical processes risk preventing policies' achievement of associated developmental objectives (Mugwagwa *et al.,* 2015). Nigeria's Executive Order, though well-intentioned, is susceptible to these risks, particularly given the complex ecosystem of customs enforcement, regulatory oversight, and manufacturing capacity. Implementation science literature suggests that the early phases of a policy rollout are critical in determining its long-term trajectory and sustainability (Fixsen *et al*., 2005; Peters *et al.*, 2013). Moreover, capturing stakeholder perceptions at this stage provides real-time insights into operational barriers and areas for mid-course correction.

Despite the significance of the 2025 Executive Order, little empirical evidence currently exists on how such fiscal policy interventions are implemented or perceived by the pharmaceutical firms they are intended to support. Most existing research in Nigeria and other LMICs have focused on structural or regulatory constraints in pharmaceutical manufacturing, with limited attention paid to real-time evaluation of specific industrial policies (Ekeigwe, 2019). Even in countries such as Bangladesh, Pakistan, and India where similar tax exemption strategies have contributed to domestic pharmaceutical growth, there remains a notable gap in literature critically assessing how such policies were implemented, monitored, and received by stakeholders on the ground (Sampath, 2019; Khan & Rauf, 2024; Cherian *et al.,* 2021). This underscores the novelty of the

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present study led by the National Institute for Pharmaceutical Research and Development (NIPRD), which not only explores the early implementation and challenges of Nigeria's Executive Order, but also offers valuable insights into the real-world dynamics of policy uptake among target populations. By capturing stakeholder experience and identifying systemic bottlenecks, this research contributes to the sparse but growing body of evidence on pharmaceutical policy implementation in LMICs and provides actionable guidance for refining industrial reform initiatives.

METHOD

Study Design and Setting

This study adopted a cross-sectional design to assess the implementation and perceived impact of the Presidential Executive Order issued in March 2025, which exempted import duties and value-added-tax (VAT) on critical pharmaceutical raw materials in Nigeria. The study focused on all pharmaceutical manufacturing companies identified as beneficiaries of this exemption policy.

Instrument Development

A structured questionnaire was developed following a comprehensive review of contextual policy documents and relevant literature. Questionnaire items were designed to assess awareness, perception, and impact of the Executive Order, as well as regulatory challenges and policy suggestions.

An expert panel comprising researchers and regulatory professionals reviewed the draft instrument independently across multiple rounds. Revisions were made based on consensus to improve phrasing, content clarity, and thematic relevance. The final version included both closed-ended items measured on a five-point Likert scale (1 = Strongly Disagree, to 5 = Strongly Agree) and open-ended items to capture nuanced organisational perspectives.

Content validity was assessed by the panel, and only items that met the predetermined thresholds were retained. A pilot test involving 10 participants outside the study population was conducted to evaluate the clarity and reliability of the instrument.

Sampling Strategy

A total of 87 pharmaceutical companies were selected using a census sampling approach. These firms were identified from official exemption records as beneficiaries of the policy (Obayendo, 2025). Respondents were drawn from across technical, regulatory, and executive roles, including production leads, QA/QC officers, and regulatory affairs managers in the selected manufacturing companies.

Data Collection

Data were collected using a mixed-mode approach. Printed questionnaires were administered in person during facility visits, while digital versions were distributed electronically to accommodate respondent preferences. Participation was voluntary, and informed consent was obtained prior to questionnaire completion.

Ethical Considerations

Ethical approval for the study was obtained from the Health Research Ethics Committee of the National Institute for Pharmaceutical Research and Development (NHREC/039/21A). Confidentiality of responses was assured, and data were anonymised prior to analysis.

Data Analysis

Completed responses were compiled and analysed using Statistical Package for the Social Sciences (SPSS) version 27. Descriptive statistics including frequencies and percentages were computed to summarise participant demographics and item responses. Inferential analysis was conducted using the chi-square test of independence. This non-parametric test was appropriate given the categorical nature of the data and the study's objective to determine whether significant associations existed between respondents' demographic or

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professional characteristics and their views on policy awareness, enforcement, and technical capacity (McHugh, 2013). A significance level of $p < 0.05$ was adopted for all statistical tests.

RESULTS

A total of 87 questionnaires were administered and 64 were returned, and deemed be valid for analysis, giving a response rate of 73.6%. Analysis revealed a respondent pool that was predominantly male (65.6%), with a considerable proportion (26.6%) aged between 41 and 50 years. The majority of respondents held either a first degree (54.7%) or a master's degree (40.6%), and nearly half (46.9%) reported over 15 years of work experience in the pharmaceutical industry. Further information on the study demographics can be seen in table 1 below.

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency (%)
Gender	
Male	42(65.6)
Female	22(34.4)
Age	
18-30	15(23.4)
31-40	6(9.4)
41-50	17(26.6)
51-60	14(21.9)
Above 60	12(18.8)
Highest Educational Qualification	
First Degree	35(54.7)
Master's Degree	26(40.6)
Doctorate	3(4.7)
Years of Experience	
<5 Years	16(25.0)
5-10 Years	7(10.9)
11-15 years	11(17.2)
>15 years	30(46.9)

Awareness and understanding of the Executive Order

Findings from collected data detailed in table 2, revealed that awareness of the Executive Order is widespread, with 92.1% of respondents indicating that they were familiar with the policy. Instruments such as government circulars (29.5%) and social media (18.0%) dominated as the most cited sources of information about this policy among participants. Notably, 75.8% of respondents confirmed that their organisations were among the companies shortlisted to benefit from the tariff and VAT exemptions. Despite the high level of awareness, only about half (53.1%) of these companies reported having attended any training sessions or seminars where the policy was discussed, and just 58.7% noted that their organisations provided regular updates or compliance guidance.

Table 2: Awareness and understanding of the Executive Order

	Variable	Frequency (%)
Are you aware of the Executive Order to boost local healthcare product production?	Yes	58(92.1)
	No	5(7.9)
If yes, how did you learn about the Executive Order?	Radio/TV station	7(11.5)
	Social media	11(18.0)
	Official Government Website	7(11.5)
	Government Circulars	18(29.5)

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	Newspapers	5(8.2)
	Colleague/Peers	10(16.4)
	Workplace Training	3(4.7)
Is your company shortlisted to benefit from the Order?	Yes	47(75.8)
	No	15(24.2)
These pharmaceutical inputs are covered under the Executive Order	Raw Materials	49(76.6)
	Active Pharmaceutical Ingredients (API)	51(79.7)
	Excipients	41(64.1)
	Packaging Material	37()57.8
	None	1(1.6)
Have you attended any event where the Executive Order issue was mentioned?	Yes	34(53.1)
	No	30(46.9)
Does your organisation provide regular updates or guidance on compliance with the Executive Order?	Yes	37(58.7)
	No	26(41.4)

Implementation of the Executive Order to increase local healthcare production

Regarding the implementation of the Executive Order, a more cautious sentiment was revealed. About one-third (32.8%) of respondents believed that the NCS would adequately enforce the order. However, over half (56.2%) agreed that the policy could be implemented in a way that encourages local manufacturers to increase production, which in turn would reduce costs. The rollout of scheme across key entry points such as seaports and airports also received moderate support, but the data presented in Figure 1 indicated a lack of clarity around coordination and oversight. Specifically, 43.5% of respondents remained neutral about the adequacy of inter-agency coordination, and almost half (48.4%) were also neutral about the presence of effective monitoring and evaluation mechanisms.

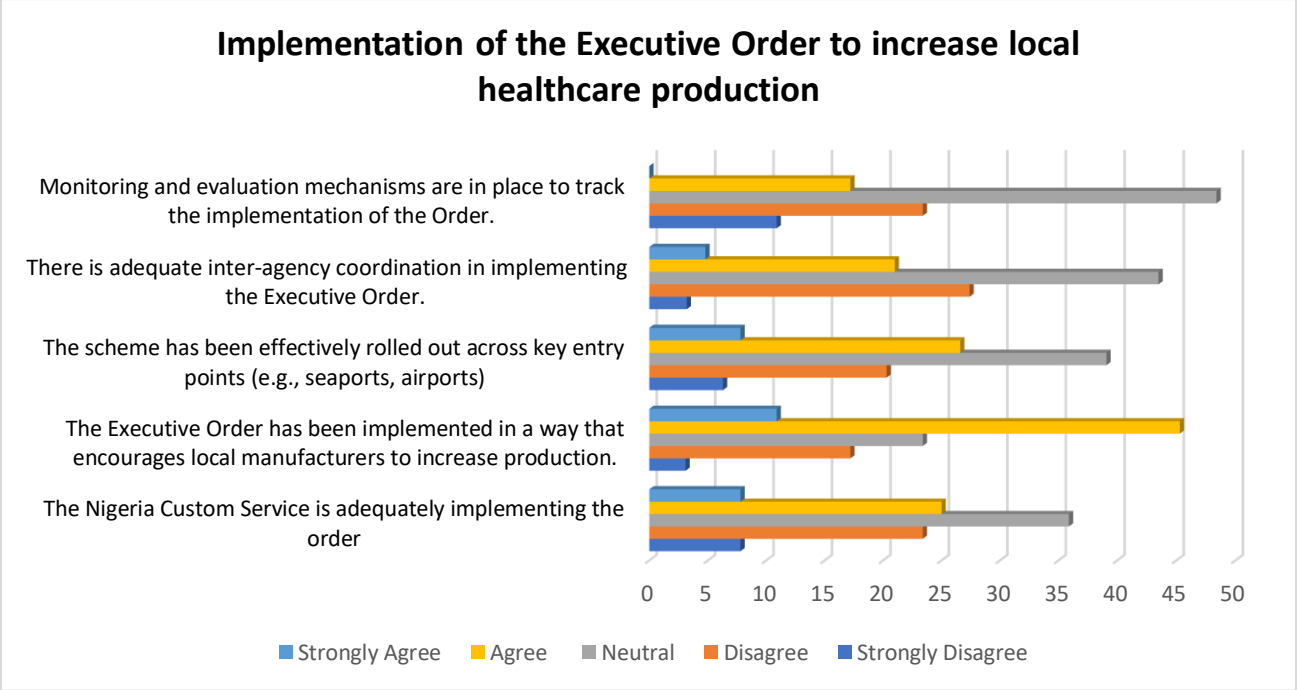

Figure 1. Graphical representation of responses regarding implementation of the Executive Order

Impact Assessment on the effectiveness of the Executive Order

With respect to the policy's perceived impact, respondents generally expressed ambivalence. Less than 40% agreed that the Executive Order had contributed to improvements in areas such as production capacity, local investment, and innovation. Neutral standpoints were also observed in most parts of this section. For instance, 42.2% were neutral on whether the Order had improved their organisation's production capacity, and 48.4%

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were neutral about its influence on investment in the healthcare sector. In addition to these, only about a quarter of respondents agreed that the policy has improved confidence in made-in-Nigeria products.

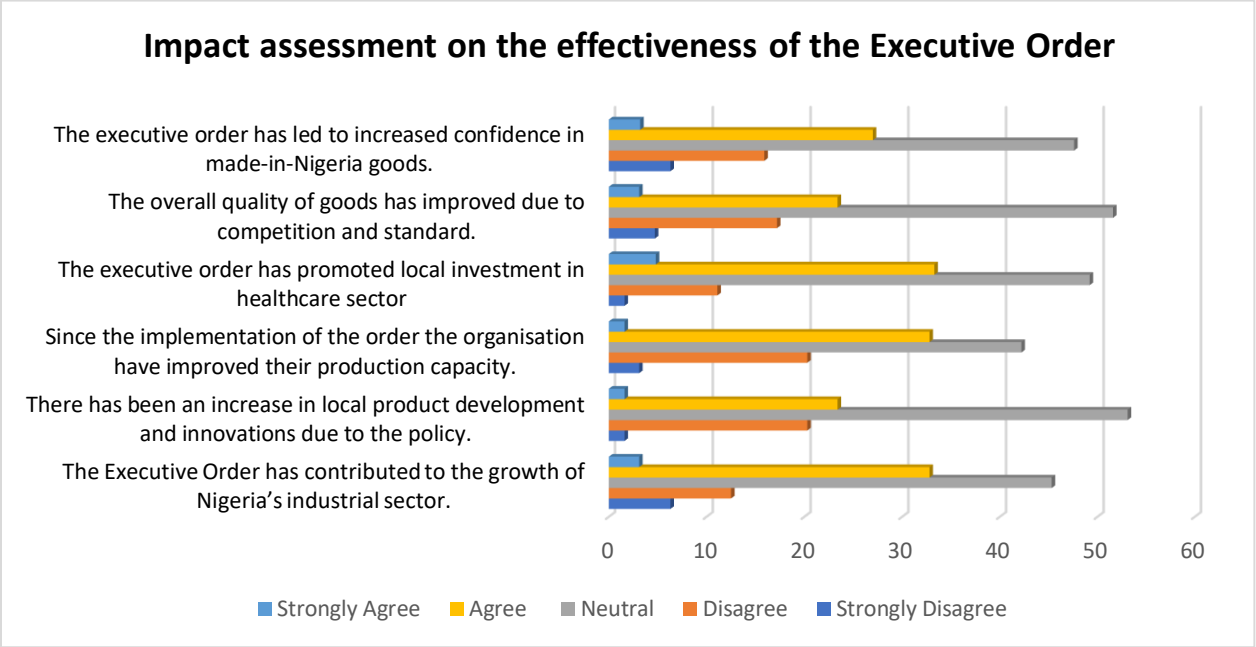

Figure 2: Graphical representation of response regarding impact of the Executive Order

Challenges faced by local pharmaceutical companies in the implementation of the exemption

Challenges which participants identified could affect the implementation of the Executive Order clearly emerged. A significant number of respondents were of the view that barriers such as excessive bureaucracy (71.9%), lack of awareness among stakeholders (64.1%), poor monitoring and enforcement (71.9%), and inadequate training (70.3%) have the potential to hinder the full realisation of the policy's objectives. Furthermore, issues related to coordination among government agencies and hidden costs imposed by regulatory bodies were also flagged. Interestingly, 67.2% agreed limited institutional capacity continue to affect the utilisation of the exemption, reinforcing the idea that systemic readiness remains an issue.

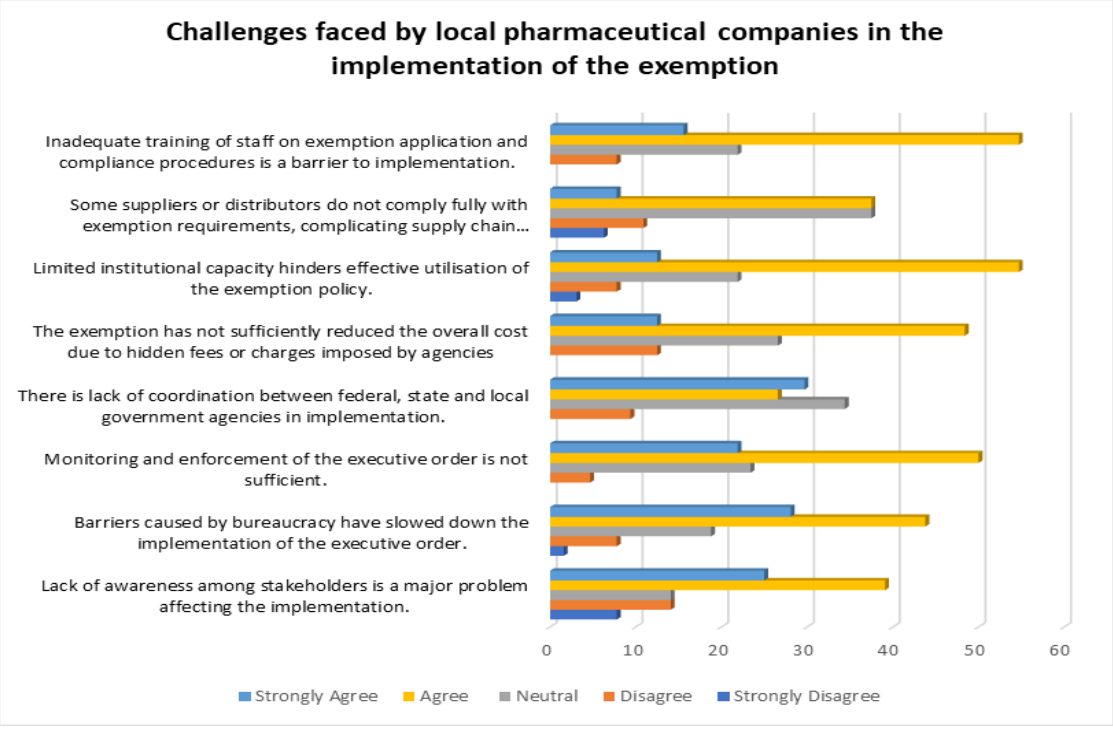

Figure 3: Graphical representation of responses regarding challenges faced by local pharmaceutical companies

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Recommendations on how to improve the use of the exemption

Despite the challenges, respondents strongly endorsed several actionable recommendations. Nearly 90% supported more public awareness campaigns, while 93% called for strengthened monitoring and evaluation mechanisms. Likewise, 88.9% supported capacity-building interventions for local manufacturers, and 86% agreed that stronger penalties should be enforced for non-compliance by regulatory agencies. There was also strong support for the publication of quarterly progress reports and the formation of public-private partnerships to drive industrial clustering and support local value chains.

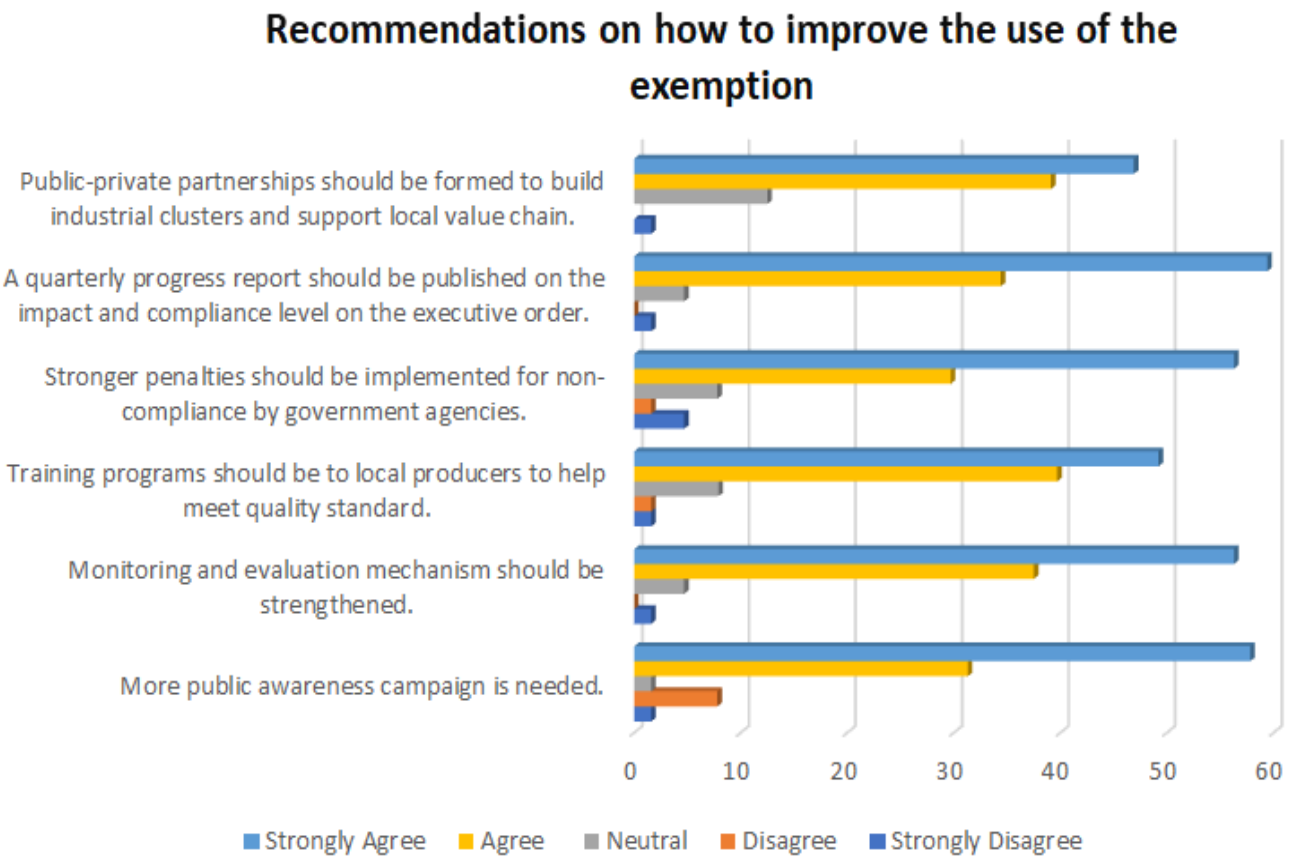

Figure 4: Graphical representation of responses on recommendations to improve use of the Executive Order

Inferential Analysis

Crosstab analysis revealed several statistically significant associations between demographic characteristics and respondents' perceptions of the implementation and impact of the Executive Order on VAT and import duty exemptions.

Perception of Nigeria Customs Implementation × Educational Qualification and Years of Experience

As shown in Table 3, respondents' years of experience and level of education were both significantly associated with perceptions of NCS role in implementing the policy. While respondents holding PhDs unanimously agreed that the Order was being adequately implemented, respondents with master's and first degrees were more divided, with a higher proportion expressing neutrality or disagreement.

Years of experience had a stronger association with favourable perceptions. Respondents with more than 15 years of experience were more likely to rate Customs' implementation favourably: 30% agreeing and 6.7% strongly agreeing. In contrast, the 5–10 years experience group exhibited a more polarised pattern with 28.6% strongly disagreeing, whilst 42.9% strongly agreed. These differences were statistically significant ($p = 0.013$), suggesting that longer industry exposure may be linked to more favourable assessments of government enforcement agencies.

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Table 3: Perception of Nigeria Customs Implementation × Educational Qualification and Years of Experience

Variable	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	X^2	*p-value*
	Educational Qualification						
First Degree	5 (14.3%)	6 (17.1%)	15 (42.9%)	7 (20.0%)	2 (5.7%)	16.594	0.035
Master's Degree	0 (0.0%)	9 (34.6%)	8(30.8%)	6(23.1%)	3(11.5%)		
PhD	0 (0.0%)	0 (0.0%)	0 (0.0%)	3(100%)	0 (0.0%)		
	Years of Experience						
< 5 years	2 (12.5%)	3(18.8%)	8(50.0%)	3(18.8%)	0 (0.0%)	25.419	0.013
5–10 years	2(28.6%)	1(14.3%)	1(14.3%)	0	3(42.9%)		
11–15 years	0	2(18.2%)	5(45.5%)	4(36.4%)	0		
> 15 years	1(3.3%)	9(30.0%)	9(30.0%)	9(30.0%)	2(6.7%)		

Barriers and support needs by awareness of the Executive Order

Table 4 presents the relationship between policy awareness and respondents' views on implementation challenges, enforcement, and capacity-building. Awareness of the Executive Order was strongly associated with more critical assessments of bureaucratic barriers ($p = 0.005$) and a greater demand for accountability and technical support. Policy-aware respondents were significantly more likely to agree that bureaucracy had hindered its implementation (75.8% agreed or strongly agreed) compared to those unaware of the policy (40%). Similarly, 91.3% of policy-aware respondents supported the imposition of stronger penalties for non-compliance, versus 20% among the unaware ($p < 0.000$). The largest difference appeared in the call for training programmes to help manufacturers meet quality standards: 93% of policy-aware respondents supported this, compared to just 40% of the unaware ($p < 0.000$).

Table 4: Policy Barriers, Enforcement, and Support Needs × Awareness of the Executive Order

	Awareness	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	X^2	*p-value*
Bureaucracy in policy implementation has slowed progress	Yes	0	4(6.9%)	10(17.2)	26(44.8)	18(31.0%)	14.772	0.005
	No	1(20.0%)	0	2(40.0%)	2(40.0%)	0		
There should be stronger penalties for non-compliance with the policy	Yes	3(5.2%)	0	2(3.4%)	18(31.0)	35(60.3%)	33.611	0.000
	No	0 (0.0%)	1(20.0%)	3(60.0%)	1(20.0%)	0		
Training programmes should be provided to help producers meet quality standards	Yes	1(1.8%)	0	3(5.3%)	23(40.4%)	30(52.6%)	20.997	0.000
	No	0	1(20.0%)	2(40.0%)	2(40.0%)	0		

DISCUSSION

This study aimed to assess stakeholder awareness, perceived implementation, and the practical impact of the 2025 Presidential Executive Order on import duty and VAT exemptions for critical pharmaceutical raw materials in Nigeria. The findings provide insight into both the policy's potential and the gaps in its execution, offering actionable directions for improvement.

The study found a high level of awareness of the Executive Order among pharmaceutical manufacturers, primarily through government circulars, industry channels and informal sources like social media. Despite high awareness, just over half of respondents had participated in any policy-related seminar or training, and a similar proportion reported receiving regular compliance updates. This gap between awareness and engagement reflects a suboptimal uptake of policy information. This is similar to findings of a previous study that noted that in Nigeria's pharmaceutical ecosystem, fragmented communication between policymakers and

implementers often results in passive compliance rather than active alignment (Ekeigwe, 2019). Effective adoption of the policy depends not just on awareness, but also on operational understanding which may be lacking among smaller companies or those without strong regulatory units. To this end, government agencies and industry partners should invest in targeted awareness-building initiatives which would be delivered through multiple platforms to ensure depth of comprehension across technical and managerial levels.

Opinions were also divided regarding the optimal implementation of the Executive Order by the NCS. This mixed perception was particularly more evident among respondents with mid-level experience (5-10 years), many of whom reported difficulty navigating NCS procedures, port documentation, and HS code interpretation. Longer-tenured respondents, by contrast, expressed higher levels of satisfaction, probably due to stronger institutional familiarity or personal networks (Dobrinić & Fabac, 2021; Soeprapto *et al*., 2024). However, this unevenness signals a lack of process standardisation and transparency, limiting equitable access to the policy's benefits. Similar challenges were reported by Yagboyaju & Akinola (2019) and Karkare *et al.* (2022) both of whom stressed that fragmented regulatory regimes often undermine otherwise well-intended industrial policies. The absence of a centralised clearance mechanism, duplication of regulatory activities amongst agencies, and inconsistent application of exemptions create a high transaction cost for manufacturers. To address this, a unified digital clearance platform should be developed to improve inter-agency coordination by integrating relevant regulatory bodies' functions. This platform should include pre-approved HS code lookups, status tracking for exemption requests, and a helpdesk for resolving classification issues. In addition, inter-agency workflows should also be streamlined to minimise redundancy and delay.

There was a modest perception of the industrial impact of the policy, particularly regarding production scale-up, innovation, and cost savings. Fewer than half the respondents agreed that the policy led to improvements while the majority remained neutral. This suggests that the tariff exemptions, though well-intentioned, has not been adequately communicated across the sector. A reason for this may be the short duration of the implementation. Given the complexities of the product conception market process, manufacturers often require longer timelines to justify capital investments, especially in plant upgrades, formulation development, and regulatory submissions. The duration of the exemption could be extended for more translational effects as evidenced in other countries that adopted similar policies (Sampath, 2019; Khan & Rauf 2024), with an output-based review framework tied to actual improvement in GMP certification, product registration, or API sourcing.

Bureaucracy, poor inter-agency enforcement, and lack of technical training were identified as major bottlenecks impeding the adequate implementation and translational effect of the policy. These barriers are consistent with broader challenges in Nigeria's pharmaceutical policy environment which include regulatory duplication, documentation flow transparency, and inconsistencies in NCS port operations (Garuba *et al*., 2009; Karkare *et al*., 2022; Usar & Bukar, 2020). Many respondents cited hidden costs, arbitrary interpretation of exemption eligibility, and long clearance delays as reasons why the policy was underutilised. Notably, those more aware of the Executive Order were also more critical of these gaps, indicating a point that supports the view that deeper engagement increases expectations for functional systems. To address this challenge, a monitoring and evaluation taskforce could be created to track exemption utilisation, identify implementation challenges, provide timely reports and work with relevant regulatory bodies to ensure that challenges are resolved in a transparent and timely manner.

Lastly, the demand for technical support and training came up as another significant solution to challenges impeding the policy. Respondents, especially those aware of the Executive Order expressed support for structured capacity-building to help firms meet quality standards, prepare regulatory documentation, and navigate international harmonisation processes. This aligns with broader observations by studies which emphasised that skills gaps in GMP, quality control, and dossier development remain one of the most critical barriers to industrial transformation in sub-Saharan Africa (Al-Asfour & Zhao, 2024; Banda *et al*., 2016; UNIDO, 2023). Government agencies, in collaboration with development partners and industry associations, can develop accredited training programmes targeting QA/QC, GMP auditing, supply chain analytics, and regulatory science. These should be competency based, delivered in modular formats, and could be embedded into the policy itself as a condition for exemption access.

CONCLUSION

This study provides an in-depth assessment of the implementation and perceived impact of the 2025 Presidential Executive Order on the exemption of import duty and VAT for critical pharmaceutical raw materials. While the policy is widely recognised among industry stakeholders and has generated gains, there is room for more robust and comprehensive utilisation across the sector. System barriers such as regulatory fragmentation, misalignment of port procedures, exemption duration, and limited technical capacity may pose a risk to its transformative potential.

Findings highlight that awareness alone is insufficient for effective implementation of the policy and requires coherent inter-agency coordination, clear operational frameworks, and sustained technical support. Furthermore, the policy's current timeframe may not adequately support the long investment horizons needed for capital upgrades, formulation development, or regulatory submissions. This study offers both company-specific and systemic insights that can inform policy and practice strategic reforms. If acted upon, they can help convert fiscal incentives into long-term industrial competitiveness, ensuring that policies like the Executive Order deliver not just tax relief, but enduring value to Nigeria's medicines' security and economic development.

LIMITATIONS

While this study offers valuable insights into the implementation and perceived impact of the Executive Order on pharmaceutical import duty and VAT exemptions, several limitations exist. Firstly, the use of self-administered questionnaires introduces the possibility of recall and response bias (O'Brien *et al*., 2022). Participants may have overstated or understated their experience, and perceptions of the Executive Order due to social desirability bias, institutional pressures, or incomplete organisational data. This could influence the accuracy of responses, especially on questions relating to regulatory compliance, production capacity, and use of the policy.

Secondly, although cross-tabulations were employed to explore associations between variables, the study's design was cross-sectional, limiting the ability to establish causal relationships. For example, while longer years of experience were associated with more favourable views of policy impact, it is not possible to determine whether experience directly shapes perception, or whether other confounding factors are at play. Longitudinal studies would be needed to capture the evolution of policy effects over time.

Lastly, the timing of data collection, which occurred relatively early in the policy's implementation is also a limiting factor, many stakeholders may not yet have observed the full effects of the VAT and duty exemptions. Consequently, the findings should be interpreted as preliminary, offering a baseline understanding rather than a definitive measure of policy effectiveness. A follow-up study after the full two-year implementation period may offer a more robust and comprehensive assessment of the policy's long term impact.

Conflict Of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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