DIRECT DISTRIBUTION MODEL AND LABOUR DISPUTES: A CASE STUDY OF DANGOTE REFINERY IN NIGERIA'S PETROLEUM SECTOR



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Abstract
This study investigated the effect of the implementation of direct distribution model on labour disputes at the Dangote Refinery in the Nigeria's petroleum sector. Survey design was employed using questionnaire as the fundamental survey instrument, complemented by field observations and personal interviews. Applying a non-probability sampling technique, a sample of 208 respondents were selected from two categories specifically NNPC downstream subsidiaries and trade unions/associations. Frequency percentages and Chi-square (χ^2) were *utilized to analyze the data and test two postulated hypotheses. The study found that Dangote Refinery's direct distribution model contributed to labour disputes driven by factors such as job insecurity, exclusion of unionized employees, poor stakeholder engagement, weakened collective bargaining, employee rights violations, elimination*

of traditional intermediaries, income decline for existing transporters and opacity in labour practices. While the Nigeria's regulatory framework provided some basis for managing labour disputes, its effectiveness was hindered by weak enforcement, inadequate laws for modern business models, limited institutional capacity, delayed dispute resolution, insufficient oversight and poor inter-agency coordination. It was concluded that government prioritization of industrial growth over workers' rights perpetuates labour abuse. Key recommendations were made to prevent future labour disputes at Dangote Refinery and in Nigeria's petroleum sector which include conducting consultations with trade unions and workers before the implementation of significant operational changes, creating formal framework for collective bargaining, strengthening regulatory frameworks, rebalancing government priorities toward worker protection, enhancing enforcement mechanisms and mandating stakeholder consultation.

Keywords: *Dangote Refinery, Direct Distribution Model, Industrial Relations, Labour Disputes, Labour Unions, NNPC, Petroleum Sector.*

1.1 Introduction

Nigeria depends significantly on imported refined petroleum products despite being a major crude oil exporter in Africa (Isa & Lenshie, 2017) due to underperformance of its state-owned refineries. This dependency leads to significant changes in the Nigerian petroleum sector over the past two decades marked by series of restructuring endeavours including deregulation, privatization initiatives and system optimization. These initiatives aim to promote a more efficient, competitive and transparent petroleum downstream sector. The structural dependency on imported petroleum products leads to significant foreign exchange outflows and frequent fuel shortages and is further compounded by pervasive corruption, inefficient management of the downstream petroleum sector and substantial subsidy payments (Olujobi, Olujobi & Michael, 2020), ultimately undermining economic stability and social welfare.

The commissioning of the Dangote Refinery in May 2023 brought renewed hope to Nigeria's downstream petroleum sector with the potential to address the country's refining challenges and establish energy security throughout West Africa. Located in Lekki, Lagos, the refinery is the world's largest single-train integrated petroleum refining facility with the capacity to process 650,000 barrels per day (bpd) and a capital investment worth over $19 billion (Abubakar, 2024). The facility represents not only a significant industrial infrastructure but signalling Nigeria's potential for industrial transformation and a testament to indigenous entrepreneurial achievement (Briggs, 2009).

A direct distribution model represents a supply chain strategy through which manufacturers deliver products straight to end consumers, bypassing wholesalers and logistics intermediaries (Kotler, Keller & Chernev, 2021). This distribution method enables faster product delivery through the optimization of supply chain operations and the reduction of delivery time to customers. It permits a more rapid and efficient response to customer needs thereby enhancing customer satisfaction and fostering brand loyalty (Rambocas, Meneses, Monteiro & Brito, 2015).

The direct distribution model allows companies to have greater control over the distribution process, reduces intermediaries' costs and increases profit margins (Rosenbloom, 2013). The model in the petroleum sector requires significant upfront investment in logistical infrastructure, human capital related to delivery operations, tankers and other transportation assets. Notwithstanding, the model demonstrates a tendency to generate improved cost efficiency due to numerous benefits and advantages it provides over the long term.

1.2 Statement of the Problem

In August 2025, management at the Dangote Refinery announced plans to implement a direct distribution model, an innovative strategy that will fundamentally restructure the petroleum downstream sector in Nigeria and transforms the way petroleum products are delivered to end users. The model entails the deployment of an initial fleet of 4,000 Compressed Natural Gas (CNG)

powered transport vehicles with the objective of saving up to N1.7 trillion annually in fuel distribution costs. Moreover, utilization of the model enhances fuel availability nationwide, reduces logistics expenditures and consumer prices (Ofikhenua, 2025).

However, the implementation of the direct distribution model at Dangote Refinery triggered a major labour dispute within Nigeria's petroleum sector. The Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN) raised objections describing the model as fundamentally anti-labour. Similarly, the Nigeria Union of Petroleum and Natural Gas Workers (NUPENG) condemned the direct distribution framework by characterizing the arrangement as unconstitutional and exploitative labour practices (Yusuf, 2025). The negative perception surrounding the direct distribution model has led to industrial disputes between Dangote Refinery and the two major unions in the petroleum sector, namely the Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN) and the Nigeria Union of Petroleum and Natural Gas Workers (NUPENG) prompting government intervention.

The adverse reaction to the direct distribution framework at Dangote Refinery could ignite further industrial unrest, increase operational costs, reduce employee morale, undermine the refinery's productivity and overall performance (Iwuoha and Umeobi, 2019). To this end, this study examines the effect of the direct distribution model on labour disputes at Dangote Refinery with the aim to promote harmonious industrial relations and improve organization performance.

The rationale behind this study is to provide critical insights into the labour dispute implications of the structural shift that arises from migrating from the traditional distribution framework to direct distribution model in the petroleum sector. By exploring the complex dynamics at play, this study offers valuable lessons for industry stakeholders and policymakers to optimize petroleum distribution in the downstream, enhance energy security and promote harmonious stakeholder relationships. Furthermore, the findings and recommendations will contribute to

existing literature on industrial relations, provide students and researchers with an in-depth understanding of the intricacies involved and serve as a valuable resource for future research endeavours.

1.3 Objective of the Study

The following research objectives are stated to summarize what is to be achieved in the study:

1. To examine how the direct distribution model contributes to labour disputes at Dangote Refinery.
2. To evaluate the effectiveness of existing regulatory mechanisms in preventing labour disputes at Dangote Refinery.
3. To identify the fundamental causes of labour disputes resulting from the direct distribution model at Dangote Refinery.
4. To determine the predominant factors that influence the effectiveness of the regulatory frameworks arising from the direct distribution model at Dangote Refinery.

1.4 Research Questions

The following research questions serve as a guide to the study in the quest to provide answers in line with the study's objectives:

1. To what extent does the direct distribution model contribute to labour disputes at Dangote Refinery?
2. To what extent are the existing regulatory mechanisms effective in preventing labour disputes at Dangote Refinery?
3. What are the fundamental causes of labour disputes arising from the direct distribution model at Dangote Refinery?
4. What are the prevailing factors that influence the effectiveness of the regulatory frameworks arising from the direct distribution model at Dangote Refinery?

1.5 Research Hypotheses

H_{01}: Implementation of direct distribution model demonstrates no statistically significant effect on the occurrence of labour disputes at Dangote Refinery.

H_{02}: Regulatory frameworks exert no statistically significant effect on preventing labour disputes resulting from the direct distribution model at Dangote Refinery.

2.0 Literature Review

2.1 Economic Policy

2.1.1 The Traditional Distribution Framework

Prior to direct distribution model introduction, Nigeria's petroleum downstream sector functioned through a complex multi-layered distribution chain incorporating refineries, depot operators, petroleum marketers, haulage vehicle owners and retail stations with each layer adding costs and profit margins. This conventional framework exhibited characteristics including operational inefficiencies, price manipulation practices, product hoarding, product diversion activities and chronic supply chain disruptions (Awoniyi & Ikechukwu, 2014).

2.1.2 The Dangote Refinery Direct Distribution Model

The direct distribution model initiative by Dangote Refinery constitutes a fundamental restructuring of petroleum product distribution throughout Nigeria. The model's foundation comprises deployment of 4,000 newly acquired Compressed Natural Gas (CNG) powered tanker vehicles representing a $467 million logistics infrastructure investment. A distinguishing characteristic involves elimination of transportation and logistics costs for purchasers with the refinery (Solomon & Adetola, 2019).

The primary objective involves eliminating intermediary expenditures that traditionally contributes to inflated consumer prices. The model is expected to save more than ₦1.8 trillion annually for Nigeria's economy through reduced transportation costs. The refinery announced retail price reduction for Premium Motor Spirit (PMS) to ₦841 per litre and ₦851 per litre in Lagos and Abuja respectively (Okafor, 2023). Employment generation constitutes another critical objective with projections of over 15,000 direct employment opportunities across Nigeria (Eze and Okeke, 2023).

2.2 Theoretical Review

The pluralist perspective recognizes legitimate conflicts of interest while viewing collective bargaining as the mechanism for managing them (Ogunlade & Williams, 2024). From this view, conflicts are predictable manifestations of divergent interests requiring active management through negotiation, collective bargaining and other institutional mechanisms. The Memorandum of Understanding (MOU) signed by Dangote Refinery and PENGASSAN on September 10 exemplifies pluralists conflict resolution mechanism where both sides secured protection of their core interests through compromise (Ezigbo, 2025).

The radical/critical viewpoint rooted in Marxist analysis emphasizes fundamental conflicts between capital and labour (Anders & Noblit, 2024) and illuminates structural power dimensions. The direct distribution model represents capital's drive to maximize accumulation through technological change that reduces labour costs. NUPENG's consideration of the dispute as a fight against slavery reveals a radical awareness that the conflict is essentially a struggle for power and justice.

The stakeholder theory holds that enterprises have responsibilities to multiple parties beyond stakeholders (Phillips, 2024). The Dangote case suggests inadequate stakeholder analysis prior to the implementation of the direct distribution model with insufficient anticipation of labour union concerns and petroleum marketers' opposition.

The refinery's prioritization order places shareholders and customers above workers and existing participants in the petroleum sector. This reflects a shareholder wealth maximization approach but neglects the stakeholder theory's emphasis on balancing the interests of multiple parties (Donaldson & Preston, 1995).

2.3 Profile of Survey Organizations: Nigerian National Petroleum Corporation (NNPC), Labour Unions, and Petroleum Sector Associations

2.3.1 Nigerian National Petroleum Corporation (NNPC) Limited

The Nigerian National Petroleum Corporation (NNPC) operates as Nigeria's State oil company and ranks among Africa's largest petroleum corporations. Founded in 1977 through merger of the Nigerian National Oil Corporation and the Ministry of Petroleum Resources to manage Nigeria's oil and gas resources. In July 2022, NNPC underwent major restructuring and converted from a corporation to a commercial entity called NNPC Limited under the Petroleum Industry Act (PIA) of 2021. This reform aimed to enhance commercial viability, transparency, and profitability (Agbai, 2022).

NNPC Limited dominates the Nigeria's oil sector and manages several operating units including upstream, downstream, gas and power, and other subsidiaries such as NNPC Engineering & Technical Company (NECTO), NNPC Health Maintenance Organization (HMO) and NNPC Properties Limited (NPL). The downstream sector involes the refining of crude oil into a variety of petroleum products and their subsequent distribution to end-users (Stokeman, 2025).

The primary products generated through the downstream operations include Premium Motor Spirit (PMS) commonly referred to as petrol, Automotive Gas Oil (AGO) known as diesel, Dual Purpose Kerosene (DPK) referred to as kerosene, Liquefied Petroleum Gas (LPG) and Aviation Turbine Kerosene (ATK) often called domestic gas and aviation fuel respectively. These refined products are distributed through a structured organizational framework comprising multiple subsidiary entities with specialized operational functions.

NNPC Retail Limited (NRL) manages retail operations in the domestic market to ensure efficient product supply and profitability while the Petroleum Products Marketing Company (PPMC) oversees product marketing and market penetration strategies. The downstream operations are further supported by NNPC Trading Limited (NTL) which facilitates trading activities and NNPC Shipping Limited (NSL) which oversees maritime logistics and transportation of petroleum products to designated distribution points.

2.3.2 Nigeria Union of Petroleum and Natural Gas Workers (NUPENG)

The Nigeria Union of Petroleum and Natural Gas Workers (NUPENG) emerged through amalgamation of seven unions in November 1977 when Nigeria's government restructured trade unions on an industrial basis (Nwankwo, 1985). NUPENG's primary objective centers on protecting and promoting oil and gas industry workers interests aimed at organizing and unionizing workers, protecting socio-economic and political interests, collective bargaining, dispute resolution, education and training, health and safety, promoting international and advocating for workers' rights.

NUPENG's organizational structure comprises several branches and groups including the Petroleum Tanker Drivers (PTD), Petroleum Station Workers (PSW), Independent Marketers Branch (IMB), Surface Tank Kerosene Peddlers (SUTAKEP), NUPENG Youth Council and National Women Council. PTD and PSW constitute prominent and active components of NUPENG (Adeyemo, 2018).

2.3.3 Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN)

The Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN) represents senior staff within the oil and gas industry. PENGASSAN's goals include promoting member welfare and interests, negotiating salaries and benefits, providing training and development opportunities, advocating for policies supporting the oil and gas industry and protecting members jobs through engagements and promotions of legislations in the interest of the oil and gas sector and the Nigerian economy at large (www.pengassan.org).

PENGASSAN exercises crucial influence in shaping Nigeria's oil and gas industry future. Its membership is drawn from various industry sectors including service companies (entities providing services to the oil and gas industry), upstream (exploration and production companies), midstream (transportation, storage and

processing companies) and downstream (refining, marketing and distribution companies). The midstream and downstream sectors possess relevance to this investigation.

2.3.4 Independent Petroleum Marketers Association of Nigeria (IPMAN)

The Independent Petroleum Marketers Association of Nigeria (IPMAN) constitutes a major trade association representing independent petroleum product marketers throughout Nigeria. IPMAN represents the interests of independent fuel retailers and distributors operating filling stations and petroleum distribution businesses across Nigeria and not major oil companies. The association encompasses thousands of members operating fuel stations throughout Nigeria's 36 States and the Federal Capital Territory.

IPMAN serves as collective voice for independent marketers in negotiations with government and oil companies, functions as intermediary between members and petroleum product suppliers (NNPC, Dangote Refinery, major marketers) and operates as advocacy group on pricing, supply and regulatory issues. The association frequently addresses fuel supply and distribution challenges, pricing disputes and subsidy matters, foreign exchange access for importation, relations with NNPC and depot regarding loading terminal access.

IPMAN exercises significant influence in Nigeria's petroleum sector since its members control substantial retail fuel distribution making their cooperation essential for stable fuel supply nationwide. The association frequently features in discussions regarding fuel scarcity, price changes, and negotiations with government bodies over petroleum sector policies (Adeyemo, 2020; Nwankwo, 2018).

2.3.5 Petroleum Products Retail Outlets Owners Association of Nigeria (PETROAN)

The Petroleum Products Retail Outlets Owners Association of Nigeria (PETROAN) operates as a non-profit organization dedicated to advancing the

collective interests of its members while fostering unity and stability within the petroleum retail sub-sector. As an active player in the petroleum retail sub-sector, PETROAN significantly influences the industry's direction, fosters a favourable business environment for its members and enhances the overall prosperity of the petroleum retail sub-sector (Ibemere, 2025). PETROAN's key activities include advocating for policies in Nigeria's oil and gas industry, supporting local refineries, requesting government support and promoting transparency and efficiency in refinery operations (Olawin, 2025; Olisah, 2025).

2.3.6 Natural Oil and Gas Suppliers Companies Association (NOGASA) of Nigeria

The Natural Oil and Gas Suppliers Companies Association (NOGASA) of Nigeria is an industry association representing interests of oil and gas service companies which ultimately contributes to the growth and development of Nigeria's petroleum sector. NOGASA objectives include promoting and developing the oil and gas industry, enhancing member companies' capacity, advocating for policies supporting industry growth and providing platforms for industry stakeholders to discuss challenges and opportunities.

NOGASA expresses critical reservations concerning the Dangote Refinery's direct distribution model arguing that it circumvents traditional intermediaries which potentially disrupts the industry's dynamics. The concerns revolve around three key areas namely potential disruption to industry operations, employment implications and the erosion of competitive advantage within the national supply chain (Onuba, 2025).

3.0 Research Methodology

This study employed a survey research design using questionnaire as the fundamental survey instrument. A survey design is substantially employed in management and behavioural sciences because it enables a researcher collects objective data and describes the problem being investigated without manipulations (Ezirim, Briggs, Ebiringa,Akpobolokemi, & Maclayton, 2004). The survey

questions were designed to align with the study's objectives comprising the utilization of a 5-piont Likert scale and multiple-response questions.

A 5-piont Likert scale allows for a varied response capturing the intensity of opinions (Igbara, 2014) and the multiple-response questions enable respondents to choose several options from the given choices providing a more comprehensive and accurate picture of their views. Also, the questionnaire was supplemented with oral interviews to elicit verifiable and in-depth information from respondents. Furthermore, the study utilized existing data from other sources to establish a connection between the findings of this study and those of previous research.

To ensure research instrument's validity, it was reviewed by professional colleagues for content appropriateness. For reliability, the test-retest method was employed utilizing Spearman's rank correlation coefficient (Igbara, 2014). The resultant correlation coefficient was 0.97 signifying high reliability.

The non-probability sampling design was employed purposively to choose respondents who are knowledgeable about the subject matter and have confidence to freely and objectively answer questions from the target population. A total of 208 questionnaires were administered among two categories of respondents namely NNPC downstream subsidiaries 33 (15.87%) and trade unions/associations175 (84.13%).

The breakdown of response rates for each category is presented in Table 1. A larger number of questionaries were administered to trade unions/associations to ensure that the diverse views of these groups were adequately represented, given their higher level of dissatisfaction and broader representation of interests as stakeholders in the petroleum sector particularly in relation to the study's focus area.

In processing the data for analysis, the data was edited, coded, classified and tabulated according to the two respondents' categories. The data were presented in frequency tables and expressed in percentages in line with the number of responses. The hypotheses were tested using Chi-square (χ^2) at 5% level of significance. The

decision rule is to reject null hypothesis (Ho) if the calculated value is greater than the critical value (Igbara, 2014).

Table - 1

Distribution of Respondents by Category

Category I: NNPC Downstream Subsidiaries		
	Number	**Percentage (%)**
NNPC Retail Limited (NRL)	10	4.81
Petroleum Products Marketing Company (PPMC)	23	11.06
Category II: Trade Unions/Associations		
	Number	**Percentage (%)**
NUPENG (Petroleum Tanker Drivers)	29	13.94
NUPENG (Petroleum Station Workers)	47	22.60
PENGASSAN (Downstream)	15	7.21
PENGASSAN (Midstream)	24	11.54
IPMAN	18	8.65
PETROAN	29	13.94
NOGASA	13	6.25
Total	**208**	**100.00**

Source: Field Survey (2025).

3.1 Data Analysis and findings

3.1.1 Direct distribution model and labour disputes

To analyze direct distribution model's contribution to labour disputes at Dangote Refinery, respondents were requested to rate their respective responses in relation to the extent to which direct distribution model contributes to labour disputes at Dangote Refinery. A 5-piont Likert rating scale was used and the scale ranges from 1 – 5 signifying 1 - 'very low extent', 2 – 'low extent', 3 – 'uncertain', 4 – 'high extent' and 5 – 'very high extent'. The extent to which direct distribution model contributes to labour disputes at Dangote Refinery as indicated by the respondents are very low extent 5 (2.40%), low extent 47 (22.60%), uncertain 4 (1.92%), high extent 91 (43.75%) and very high extent 61 (29.33) with a mean score of 3.75 (Table 2). Notably, a cumulative 152 (73.08%) rated the contribution as either high

or very high. The overwhelming consensus indicates that the direct distribution model has a substantial effect on labour disputes at Dangote Refinery,

3.1.2 Effectiveness of existing regulatory framework

The effectiveness of the existing regulatory framework in preventing labour disputes at Dangote Refinery was also analyzed using a 5-piont Likert scale. The respondents rating was very low extent 51 (24.52%), low extent 114 (54.81%), uncertain 9 (4.33%), high extent 29 (13.94%) and very high extent 5 (2.40) with a mean score of 2.15 (Table 2). This indicates that a significant number of respondents perceive the current regulatory frameworks as inadequate in preventing labour disputes at Dangote Refinery,

Table – 2

Analysis of Research Objectives One and Two

Research Objective I: Direct distribution model and labour disputes		
Rating	**Response**	**Percentage (%)**
Very Low	5	2.40
Low	47	22.60
Uncertain	4	1.92
High	91	43.75
Very High	61	29.33
Total	**208**	**100.00**
Mean		**3.75**
Research Objective II: Effectiveness of existing regulatory framework		
Rating	**Response**	**Percentage (%)**
Very Low	51	24.52
Low	114	54.81
Uncertain	9	4.33
High	29	13.94
Very High	5	2.40
Total	**208**	**100.00**
Mean		**2.15**

Source: Field Survey (2025).

3.1.3 Elemental causes of labour disputes at Dangote Refinery

To identify the fundamental causes of labour disputes arising from direct distribution model at Dangote Refinery, respondents were presented with eight factors derived from common grievances expressed by NUPENG, PENGASSAN, IPMAN and NOGASA. The frequency response rates of the eight reasons are threats to employment security 198 (95.19%), exclusion of union members from employment 191 (91.83%), inadequate stakeholder consultation 187 (89.90), erosion of collective bargaining power 184 (88.46%), perceived violation of workers' rights 179 (86.06%), elimination of traditional intermediaries 176 (84.62%), loss of income for existing transporters 173 (83.17%) and insufficient transparency in labour relations practices 169 (81.25%) (Table 3). The response rates were relatively high across all factors but the top-ranked reason, threats to employment security reflects workers' fundamental anxieties about protecting their livelihoods.

3.1.4 Regulatory frameworks effectiveness

Regarding the prevailing factors that influence the effectiveness of the regulatory frameworks arising from direct distribution model at Dangote Refinery, respondents were presented with six factors identified from pilot interviews conducted across the two categories. A pilot interview is conducted before the main study to identify potential issues with questions or methodology (van Teijlingen & Hundley, 2002).

The frequency response rates of the six factors include weak enforcement mechanism 196 (94.23%), inadequate legal framework for emerging models 189 (90.87%), limited regulatory institutional capacity and resources 185 (88.94%), delayed dispute resolution processes 182 (87.50%), insufficient regulatory oversight 178 (85.58%) and lack of coordination among agencies 174 (83.65%) (Table 3). The response rates indicate that all the factors relatively influence the effectiveness of the regulatory frameworks arising from direct distribution model at Dangote Refinery but the top-ranked factor being weak enforcement mechanism points to implementation challenges rather than inadequate regulatory and institutional frameworks.

Table - 3

Analysis of Research Objectives Three and Four

Research Objective III: Elemental causes of labour disputes			
Reasons/Components	**Frequency**	**%**	**Rank**
Threat to employment security	198	95.19	1
Exclusion of union members from employment	191	91.83	2
Inadequate stakeholder consultation	187	89.90	3
Erosion of collective bargaining power	184	88.46	4
Perceived violation of workers' rights	179	86.06	5
Elimination of traditional intermediaries	176	84.62	6
Loss of income for existing transporters	173	83.17	7
Insufficient transparency in labour relations practices	169	81.25	8
Research Objective IV: Regulatory frameworks effectiveness			
Factors/Components	**Frequency**	**%**	**Rank**
Weak enforcement mechanism	196	94.23	1
Inadequate legal framework for emerging models	189	90.87	2
Limited regulatory institutional capacity and resources	185	88.94	3
Delayed dispute resolution processes	182	87.50	4
Insufficient regulatory oversight	178	85.58	5
Lack of coordination among agencies	174	83.65	6

Source: Field Survey (2025).

Hypothesis Testing

Chi-Square (χ^2) test at a 5% significance level was used to test the two hypotheses.

The formula for Chi-square (χ^2) is:

$\chi^2 = \sum (O - E)^2 / E$

Where:

O = Observed frequencies

E = Expected frequencies

$\sum$ = Summation

In this equation, (O) represents the observed frequencies derived from survey responses in Table 2, while (E) represents the expected frequencies, which is the mean of the observed values calculated as 208 ÷ 5 = is 41.6 (Briggs, Wege, & Nwiana, 2020). The summation symbol (∑) indicates that the calculation is performed across all categories. The resulting computed values applying the Chi-Square (χ^2) formula appears in Table 4.

Table – 4

Calculated Values of χ^2

***H_{01}:* Implementation of direct distribution model demonstrates no statistically significant effect on the occurrence of labour disputes at Dangote Refinery.**				
O	**E**	**O-E**	**(O-E) ²**	**(O-E) ²/E**
5	41.6	-36.6	1339.56	32.201
47	41.6	5.4	29.16	0.701
4	41.6	-37.6	1413.76	33.985
91	41.6	49.4	2440.36	58.663
61	41.6	19.4	376.36	9.047
$\chi^2 = \sum (O - E)^2 / E$ = 134.597				
***H_{02}:* Regulatory frameworks exert no statistically significant effect on preventing labour disputes resulting from the direct distribution model at Dangote Refinery.**				
O	**E**	**O-E**	**(O-E) ²**	**(O-E) ²/E**
51	41.6	9.4	88.36	2.124
114	41.6	72.4	5241.76	126.003
9	41.6	-32.6	1062.76	25.547
29	41.6	-12.6	158.76	3.816
5	41.6	-36.6	1339.56	32.201
$\chi^2 = \sum (O - E)^2 / E$ = 189.691				

Source: Computed Data (2025).

Hypothesis One

H_{01}: Implementation of direct distribution model demonstrates no statistically significant effect on the occurrence of labour disputes at Dangote Refinery**.**

The table value for χ^2 for with 4 degrees of freedom at 5% level of significance is 9.488. Comparing the calculated value (134.597) and the table values (9.488), the calculated value substantially exceeds the table value. Therefore, null hypothesis (Ho) is rejected. Thus, the implementation of a direct distribution model demonstrates statistically significant effect on the occurrence of labour disputes at Dangote Refinery.

Hypothesis Two

H_{02}: Regulatory frameworks exert no statistically significant effect on preventing labour disputes resulting from the direct distribution model at Dangote Refinery.

Similarly, the table value for χ^2 with 4 degrees of freedom at 5% level of significance is 9.488, which is markedly less than the calculated value (189.691) warranting rejection of null hypothesis (Ho). The results demonstrate that regulatory frameworks significantly influence the prevention of labour disputes arising from the direct distribution model implementation at Dangote Refinery

4. Discussion

The study's descriptive analysis revealed that Dangote Refinery's direct distribution model had a considerable effect on labour disputes. The findings were further supported by the hypothesis (H_{01}) test result which showed a statistically significant effect of the direct distribution model's implementation on the occurrence of labour disputes. Specifically, the underlying causes of these disputes were primarily attributed to workers' concerns about job displacement with 95.19% citing job security as the key reason exacerbated by the challenging economic situation in Nigeria where job opportunities are scarce (Adeyemi & Akinola, 2020).

The study revealed that workers' concerns centered on practical threats to their well-being and rights rather than ideological differences. Key issues included exclusion of union members from employment (91.83%), inadequate stakeholder consultation (89.90%), erosion of collective bargaining power (88.46%) and violation of workers' rights (86.06%). The study identified these elements as contributory factors to the recent layoff of 800 unionized employees at Dangote

Refinery (Mondaq, 2025). This contradicts the pluralist industrial relations perspective which promotes diverse stakeholder voices and collective bargaining for equitable outcomes and organizational stability (Nnanyere-Nwachukwu, 2024).

While the direct distribution model reduces logistics costs and pump prices of refined petroleum products, in contrast, respondents indicated that it would eliminate traditional intermediaries (84.62%), result in loss of income for existing transporters (83.17%) and create a monopoly in the sector as noted by personal interview respondents who drew parallels with Dangote's dominance in the cement industry.

The study's findings suggest that Dangote's direct distribution model in the petroleum sector may follow a similar pattern of dominance as observed in the cement industry. As noted by Itamin (2021), Dangote's cement profits were induced by government incentives for backward integration, monopoly capitalism, marked by price setting power and wage control which ultimately undermined purchasing power and growth. This historical context likely informs respondents' concerns about potential monopolization in the petroleum sector highlighting the risks associated with unchecked market dominance.

The study assessed the effectiveness of the existing regulatory frameworks in preventing labour disputes arising from the direct distribution model at Dangote Refinery. While descriptive analysis suggests the frameworks are ineffective, hypothesis test result revealed it has a statistically significant impact on mitigating labour disputes. However, it was observed that the frameworks fall short of fully eliminating tensions associated with major operational changes. Key factors hindering the effectiveness of the regulatory frameworks as identified by the respondents include weak enforcement mechanisms (94.23%), inadequate legal framework for emerging models (90.87%), limited regulatory institutional capacity and resources (88.94%), delayed dispute resolution processes (87.50%), insufficient regulatory oversight (85.58%) and lack of coordination among agencies (83.65%).

Nigeria's petroleum sector industrial relations are governed by key policies and laws including the Trade Disputes Act 2004 (Giame, Awhefeada & Edu, 2020), Trade Union Act 2005 (Federal Republic of Nigeria, 2005), National Industrial Court Act 2006 (Amucheazi & Abba, 2013) and National Industrial Relations Policy (NIRP) 2025 (International Labour Organization, 2025). Despite this regulatory framework, the study reveals that government and employers prioritize industrial growth over workers' rights leading to labour abuse and regulatory negligence. While stakeholder theory advocates balancing interests of all parties, Dangote Refinery adopts an imbalanced approach favouring shareholder wealth and profit over adequate worker compensation and welfare. Respondents in personal interviews attribute this imbalance to Dangote's political and economic power influencing government policies. This imbalance is a crucial factor undermining regulatory agencies' effectiveness.

The recent layoff of 800 staff at the refinery deemed as a breach of labour law and human rights exemplifies this issue. This context explains why respondents cited various factors hindering labour disputes prevention in the refinery's direct distribution model and why the regulatory architecture fails to evolve and address emerging operational models.

5. Conclusion and Recommendation

5.1 Conclusion

Dangote Refinery's direct distribution model has significantly increased labour disputes primarily driven by workers' concerns about job security and displacement. The study confirms a statistically significant relationship between the model's implementation and labour conflict. While the model offers operational efficiency and potential cost reduction, it threatens existing employment structures and market competition. Despite the statutory provisions, the current regulatory framework remains ineffective due to weak enforcement mechanisms, inadequate legal provisions for emerging models and institutional capacity constraints. The prioritization of industrial growth over workers' rights has created an environment of labour abuse and regulatory negligence. The recent layoff of 800 unionized employees exemplifies this imbalance and underscores the urgent need for comprehensive reform.

5.2 Recommendations

Dangote Refinery should consult with trade unions and workers before implementation of any significant operational changes. This will promote trust, reduce conflicts and ensure that changes reflect workforce insights. To reinforce workers' voice, enhance fair agreement, improve workers satisfaction and foster cooperative industrial relations, Dangote Refinery should recognize union operations, institutionalize negotiations and create a formal framework for collective bargaining. Dangote Refinery should hire qualified drivers and staff into existing vacancies in the old supply chain to leverage experience for operational efficiency and continuity.

The government and regulatory agencies should establish explicit provisions to protect workers during major structural changes and ensure transparent stakeholder engagement to safeguard workers' rights and build trust. Also, government and regulatory agencies must shift from prioritizing industrial growth to adopting a balanced approach that protects workers' rights and welfare. This requires establishing clear accountability mechanisms, developing worker-centered policies

and ensuring that regulatory agencies act independently without undue influence from large corporations.

Joint multi-stakeholder committee should be established to coordinate labour dispute prevention and resolution efforts. There should be clear timelines for labour disputes resolution to ensure speedy justice as it is said "justice delayed is justice denied" (Sourdin & Burstyner, 2014).). Penalty mechanisms for non-compliance with labour standards should be established to determine violations of labour dispute resolutions and appropriate action taken in due time. This will ensure that violations of labour dispute resolutions are identified and promptly addressed, deterring non-compliance and promoting fair labour practices.

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