



## TRADE UNION PERFORMANCE AND INDUSTRIAL RELATIONS CLIMATE IN THE NIGERIAN PETROLEUM SECTOR

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### ABSTRACT

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This study explores the relationships between the variables of industrial relations climate as well as the performance of trade union in selected petroleum companies in Nigeria. The study adopted a cross-sectional research design. A total of 361 copies of the feedback forms were administered to the workers of the selected petroleum companies revealed on the Nigerian Stock Exchange, but a total of 350 copies of questionnaire were completed and appropriately returned. The study used correlation analysis along with T-test analysis for data analysis. In the first hypothesis, the correlation analysis reveal a significant positive relationship between integrative bargaining and the four magnitude of the industrial relations climate (harmony, openness, hostility in addition to apathy) in the Nigerian petroleum sector, while a negative relationship between integrative bargaining with promptness is present. In the second hypothesis, the correlation analysis shows that leadership behaviour has a significant positive relationship involving the dimensions of industrial relations climate (harmony, openness, hostility and apathy), while a negative relationship linking leadership behavior along with the promptness is present. The third hypothesis shows that harmony, openness, apathy and promptness have a positive control on the union density, while hostility has a negative influence on the union density. The study recommends that management should respect the rights of workers and employees and their unions should take note of employers' prerogatives. In the spirit of industrial harmony, social dialogue and collective bargaining must be supported by facts and figures to avoid adversarial and confrontations between unions and management.

**Contribution/Originality:** This study contributes in the existing literature by examining the influence of the trade union performance on industrial relations climate in Nigerian petroleum sector. The paper's primary contribution is to investigate the relationships between the variables of trade union performance and variables of industrial relations climate.

## 1. INTRODUCTION

The petroleum sector is an important basis of energy and income in Nigeria as well as some countries of the world. The petroleum sector, which is the pillar of the Nigerian financial system, plays a vital role in shaping the country's economic and political destiny through the provision of employment, raw materials for other productive activities, etc. Although Nigeria's petroleum sector was founded at the beginning of the century, it was not until the end of the Nigerian Civil War (1967-1970) that the petroleum sector began to play a leading role in the economic

life of the country. The discovery of oil in Nigeria has caused ethnic, regional and religious tensions, magnified by the significant disparities in economic, educational and environmental development in the country, which therefore have an impact on the Nigerian industrial relations climate.

Petroleum companies operate in dangerous environments with multiple technological, environmental and human challenges that affect the work environments of employees. These work environments carry a high potential for stress, accidents, injuries and various adverse health outcomes. Given these dangers and the risks associated with work in the petroleum sector, the administration of the petroleum companies has used considerable resources to improve the well-being of their workers, in order to increase their commitment to work, which would otherwise result in conflict between workers and managers (Hystad *et al.*, 2014). The emergence of this conflict of interests between workers and the management of the petroleum sector has attracted the attention of the International Labour Organization (ILO). In its 280<sup>th</sup> session, the Governing Body (ILO) decided to consider different approaches to promoting good industrial relations climate in the petroleum sector in a variety of geographical, cultural, political, economic and technical circumstances (International Labor Organization (ILO), 2002). The intention of the ILO is to reconcile the divergent interests of the parties (workers and management) to create a favorable industrial relations climate. As employers want to maximize profits and continue in business, workers who are also union members also seek protection and ensure that their welfare is not affected.

Therefore, a task for the management of petroleum companies is to create an industrial relations climate that supports and maintains the cooperation and consensus between the unions and management in the workplace. Building mutual trust between unions and management is essential if changes in behavior and attitude must be guaranteed to ensure the benefits of focusing on the long-term competitive position of the organization (Purcell, 1981; Barrett, 1995). Therefore, Dastmalchian (2008) viewed industrial relations climate as the perceptions of the members of the organization about the norms, behavior, practice along with atmosphere of unification management relationships within the place of work. For Dastmalchian *et al.* (1989) the positive climate of labor relations is characterized by harmony, openness and promptness, while a negative one exhibits hostility and apathy.

Due to the strategic position of the petroleum sector in national development, the two unions in this sector, namely the National Union of Petroleum and Natural Gas Workers (NUPENG) and Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN) that are the bargaining agents for employees in petroleum industry have gained great bargaining power and have time after time exploited power to their benefit in the basis of championing the demands of the workers. One of the bargaining techniques used by these unions (NUPENG and PENGASSAN) in bargaining or conflict resolutions in the petroleum sector is integrative bargaining. Integrative bargaining implies a negotiating procedure in which the parties concerned strive to integrate their interests as effectively as feasible in the last agreement. Integrative bargaining requires the positive participation of union leaders, who also represent the voice of their members and communities in general (Watkins and Rosegrant, 2001). Similarly, the leadership of these unions has sought over time to renew the struggle for unfair employment problems that affected workers in the petroleum sector. Leadership is a bilateral engagement involving union leaders as well as employers to accomplish a common goal. This engagement drives union leaders to influence the behavior of their members while influencing their employees' perceptions of the climate. This leads to expectations of appropriate behavior that takes root in the climate (Holloway, 2012).

The petroleum sector is well knowledgeable to industrial crises in recent years which are attributed to the expatriate abuse of quotas, the delay and non-application of collective agreements, bargaining in bad faith with all the nuances of unjust labour practices, such as casualization, outsourcing, contract staffing along with the various forms of labour flexibility (Ogbeifun, 2009). In the same way, conflicts in the petroleum sector can be attributed, among other things, violations of trade union rights in the sector, widespread in Nigeria. Others include; intimidation of workers who are members of unions, refusal of employers to recognize unions and dismissal of workers' representatives for union activities. For instance in March 2003, workers of Agip Plc were forcibly refused

by local management to present their grievances to the visiting company officials from France (Petroleum and Natural Gas Senior Staff Association of Nigeria, 2006). An increase in the casualisation of workers has led to difficulties in organizing workers, particularly in the petroleum industry. Collective agreements are generally not honoured by management. Strikes are often responded to with police violence, arrests and even killings of trade unionist in the industry, and the management of petroleum companies has become increasingly hostile to trade unions. Also in April 2004 and Sept 2006 respectively, workers under the auspices of NUPENG agitated for the release of 40 tankers seized by Lagos State Transport Management Agency and killing of their member taken hostage in the Niger Delta (Fajana, 2005). These in general have seriously affected the industrial relations climate in the petroleum sector with the total gross domestic product of the economy. It is against this backdrop that this study examines the influence of the trade union performance on industrial relations climate in Nigerian petroleum sector.

## 2. LITERATURE REVIEW

### 2.1. Nature of Trade Union Performance

The conceptual framework for this study comes from industrial relations. Industrial relations according to Anugwom (2002) is defined as the network of communal relationship among the employees and their unions, employers, their associations, government and their various agencies in their attempt to regulate terms with conditions of employment in addition to perform other functions that directly or indirectly concern the initiation, sustenance of peaceful and purposeful labour management relations which involves applying machinery dealing with complaints, grievances as well as disputes in an organization.

However, trade union has fascinated a diversity of definitions of academics depending on the perception of employees as well as the definition enforced by the legal framework of a specific country (Yusuf, 2010). According to Akpala (1982) the exact trade union definitions may possibly differ from one circumstance to another depending on the socio-political condition that encompasses workers' management relationships.

Yusuf (2010) opined that union is a frequent association of workers in order to sustain or enhance the condition of their working lives.

Yusuf (2010) stated that the different union definitions reflect the role it plays in vicinity, which includes:

- Checking the extremes of employers.
- Being a forum for actualizing the revolutionary possibility of labour.
- Defending members' awareness against management action or misdeeds.
- Resisting against capitalist dominance.
- Providing a chance for workers to be equivalent partners to management.
- Providing workers with an estimate of collective strength.
- Being or acting as a vehicle of revolutionary social change.

Conceptually, trade union performance refers to the degree to which trade unions negotiate and fight for the right of their members to improve their working conditions through the use of authority and leadership. This definition, as operationalise has different dimensions of trade union performance which include; Integrative bargaining, leadership behavior and union density.

Integrative bargaining is a compromise approach in which the parties collaborate to find a 'win-win' solution to their disagreement. This strategy focuses on developing mutual benefit agreements based on the interest of the disputants. The interests of the parties to the dispute include the needs, wishes, concerns and important fears for each party. These are the underlying reasons why people get caught up in a conflict (Watkins and Rosegrant, 2001).

Leadership performance is that behavior allied with the exercise of authority. Effective leadership activities is characterized by the capability of the leader to manipulate the actions of a group, by starting structures (such as setting goals) that allows the group to successfully overcome mutual problems and achieve their group goals. The

leadership deeds exhibited by leaders may or may not reproduce their personalities. Therefore, the dimensions of leadership behavior are: (i) startup structure; that refer to the behavior of leaders when trying to institute definite patterns of organization, communication channels in addition to procedural methods; (ii) consideration; that refer to the indicative behavior of friendship, mutual trust, respect and warmth in the relationship connecting the leader as well as the members of his workers.

Union density is an evaluation of union membership, calculated as the number currently enrolled as members as a proportion of all workers potentially qualified to be members. It also refers to the actual membership of a union as a percentage of the total possible membership (Fitzenberger *et al.*, 2001).

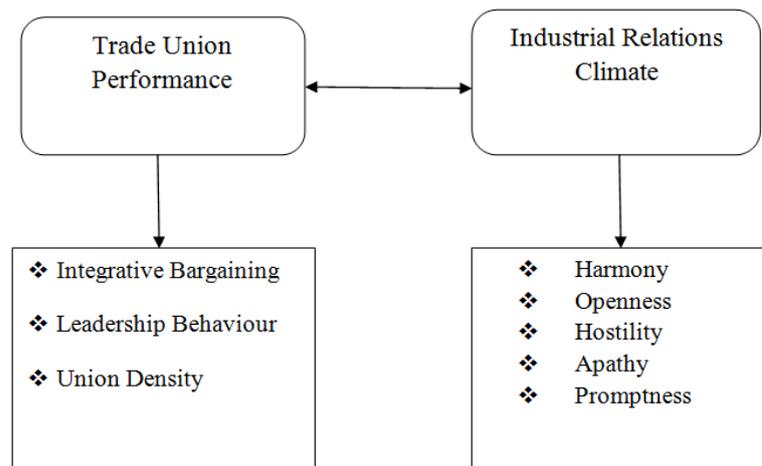


Figure-1. Model of trade unions performance and industrial relations climate.  
Source: Researcher's field survey.

## 2.2. Meaning of Industrial Relations Climate

The industrial relations activities of a company generate a characteristic atmosphere in the organization. This characteristic atmosphere, as perceived by the members of the organization, is known as the industrial relations climate (Dastmalchian *et al.*, 1989). More specifically, industrial relations climate refers to the perceptions of the members of the organization about the norms, conduct, practice and atmosphere of trade union management relations in the workplace (Dastmalchian, 2008) and the degree to which industrial relations are cooperative or conflicting reflected to the extent that relations between management and employees are viewed by the participants as mutually reliable, respectful and cooperative (Hammer *et al.*, 1991). The industrial relations climate represents the state and quality of union-managerial relations in an organization (Dastmalchian *et al.*, 1989).

Blyton *et al.* (1987) designed a study of workplace relations that lead to the definition of six key areas of the labor relations climate. These dimensions reflect the perceptions of the members of the organization about the types of norms and atmospheres that surround the practice of union-managerial relations within the organization. The six dimensions include hostility, mutual respect, trust and fairness, joint participation, apathy and union-management cooperation. Dastmalchian *et al.* (1989) identified five scales of measurement of the industrial relations climate, which include; harmony, openness, hostility, apathy and promptness.

## 2.3. Structural Factors Affecting Industrial Relations Climate

Webster and Loundes (2002) posit that industrial relations climate is influenced by five factors relevant to the organization. These include:

### 2.3.1. Organizational Environment

The first group of variables incorporates the organizational environment. This includes the size of the employee to reflect the sophistication and coverage of administrative and personnel resources; if it is international

owned and the proportion of the company's workforce; the degree of dynamic competition in the product market that arises from unpredictable consumers and the needs of rapidly changing markets; the degree of difficulty managers have in finding suitable qualified personnel; the level of rotation between qualified personnel and the use of contractors and informal personnel. Sheppeck and Militello (2000) point out that greater volatility leads to higher transaction costs for the company in the market. In order to limit the impact of these transaction costs, a higher level of competition in the labor market and products is expected to put pressure on companies to allocate more resources to improve labor relations in the workplace (Wooden *et al.*, 2002). The low turnover of qualified personnel may indicate a tight labor market but may also be the result of a happy workforce. Extensive use of non-permanent labor could reduce the cohesion felt among permanent staff and, therefore, reduce the morale and climate of relationships. Alternatively, the use of non-permanent labour could increase the job security of 'core' workers and thus improve cooperation and the climate.

### *2.3.2. Intra-Organizational Processes*

Intra-organizational processes, especially those that affect the interaction between managers and workers, should also affect the measurement of the climate. This includes the use and existence of communication procedures and complaints, the scope of recent organizational change, the level of organizational and staff flexibility and the degree of organizational integration. The active participation of employees (employee participation) in determining how production is carried out in the workplace has also been advanced as a method of influencing workplace performance (Cooke, 1990; Fernie and Metcalf, 1995). If greater employee participation leads to elude or if employees are willing to participate, the impact is likely to be negative. On the other hand, if employees know better how to perform certain tasks, or if they obtain greater job satisfaction when participating, there could be a positive association. The previous analysis indicates support for the notion that employee participation will improve relations between management and employees (Cooke, 1990). Organizations that allocate more resources to better methods of bilateral communication between managers and workers are expected to have better working relationship climates. Along the same lines, the recent injection of resources into organizational and / or managerial change could have a beneficial impact on the climate if they were in fact successful. The flexibility in the strategic plans of the organization and the degree of integration within the company could improve the climate to the extent that it reduces frustrating bureaucracy and difficult to handle procedures, which undermines the sense of stability and comfort that employees feel within the work environment (Webster and Loundes, 2002).

### *2.3.3. Management Style*

The management style is one of the dominant influences in the climate of the relations between the workers and the managers of the organization. The group of factors includes the preference of senior executives for cost reduction, their competitive position towards their rivals and their decision-making style within the organization. The most aggressive managers in the product market can be equally aggressive in their negotiations with their employees or unions. Managers' decision-making styles regarding the internal operation of the organization may also reflect how managers deal with employees and unions (Sheppeck and Militello, 2000).

### *2.3.4. Human Resources Management*

The human resources approach includes measures that reflect the importance of human resources management (HRM) for senior management of the organization, the scope of training and multiple skills, the sophistication of selection and promotion procedures and use of monetary rewards and incentives for employees. In general, extensive and well-developed human resources management practices are expected to lead to a more harmonious climate as workers gain more personalized service and respect (Webster and Loundes, 2002). However, the use of

individual-based rewards could have a detrimental effect on relationships if it creates resentment among workers by promoting competitive rather than cooperative behavior.

#### *2.3.5. Labour Relations*

A series of variables have also been included to reflect labor relations structures. Here, the extent to which labor relations reforms (including the introduction of business negotiation) can influence the climate. [Wooden et al. \(2002\)](#) point out that the case of business-based negotiation systems depends largely on their potential to improve the productive capacity of the company. The analysis is often complicated by the observation that agreements vary between workplaces, as some may reflect the industry, rather than business negotiation, or may simply involve overcoming standard award agreements ([Wooden et al., 2002](#)). To capture some of this complexity, the analysis includes the proportion of the labor force employed under collective agreements negotiated by the union, how relevant are these agreements for the company, the uniqueness of collective agreements, and the proportion of workers employed under individual contracts and the suitability of these contracts for the company. [Webster and Loundes \(2002\)](#) reiterated that the higher the number of workers employed under collective bargaining agreements instead of individual contracts, the more emphasis managers will place on improving their relations with the unions. In addition, a more personalized collective agreement and / or individual contract may reflect a good climate of negotiations and mutual respect, but it can also cause a greater sense of cooperation and trust. However, union density can influence the amount of effort that the administration puts into good relations with both unions and their employees, but a poor climate can also affect union membership. The exit / voice about the influence of unions on the climate, initiated by Freeman and Medoff, suggests that unions have a positive influence on the climate in their role as mediators for employee concerns ([Freeman and Medoff, 1984](#)). Alternatively, high union density can be a barrier to good relations between management and employees if unions adopt a more conflicting role in their dealings with management on behalf of their members ([Webster and Loundes, 2002](#)).

#### *2.4. Theoretical Framework*

This study is based on the theory of social exchange. The social exchange theory states that the exchange stimulates feelings of personal obligation and gratitude ([Blau, 1964](#)). When employees perceive that the relationship between management and the union is respectful, harmonious and cooperative (a positive climate of labor relations), employees are likely to correspond by developing higher levels of trust, which in turn will motivate them to participate at higher levels of work performance. Based on the theory of social exchange, employees who perceive that the industrial relations climate is conducive will feel more satisfied with their work and, therefore, will be more loyal to their employing organization. The social exchange theory also supports the prediction that positive and beneficial actions directed at employees and their unions for the management of an organization and / or their representatives create feelings of obligation for employees to correspond positively, so beneficial, including feelings of loyalty and, commitment and performance ([Wayne et al., 1997](#)).

#### *2.5. Empirical Review*

[Newman et al. \(2018\)](#) examine the effects of two key variables associated with union effectiveness in employee job performance, and the mechanisms that explain the effects of success. Specifically, the study investigate whether employees' perceptions that their union has a constructive relationship with management (industrial relations climate) and is able to act as an agent for their concerns (union instrumentality) promotes their job performance by enhancing their perceived job security and trust in management. Based on three waves of data from 303 employees and their immediate supervisors to less than 17 private companies in China, the study of employees' perceptions of effective union influence their work performance, thus improving their perceived job security and trust in management. These findings are consistent with the social exchange theory and the conservation of resources

theory. The study contributes to the literature by improving our understanding of how trade unions influence the work performance of employees and by explaining how employee perceptions about the climate of labor relations and union instrumentality influence their work performance.

De Prins *et al.* (2018) explores the relationship between current forms and realities of social dialogue in the workplace, the industrial relations climate, Human Resource Management, and employee harm. Model specifying associations was tested between; indicators of revitalized social dialogue, perceived cooperation within the industrial relations climate, and perceived sustainability in human resource (HR) practices, and management perceptions regarding employee harm. The test was based on a survey conducted among 356 (HR) managers and Chief Executive Officers in Belgium. The results support the idea that a cooperative industrial relations climate and sustainable HR practices can reduce employee harm. More specifically, efficiency in social dialogue fully mediated the relationship between cooperative industrial climate and employee harm. In turn, industrial relations climate partially mediated the relationship between sustainable HR practices and employee harm. Finally, sustainable HR practices correlated positively with a cooperative industrial relations climate, suggesting that HR and employee relations reinforce rather than weaken each other.

Hewagama and Gamage (2011) empirically examined the association between industrial relations climate, dual commitment and intention to quit the organisation and union of operational level employees in food and beverage industry in Sri Lanka. Three large scale highly unionized organizations in food and beverages industry were selected for purpose of data collection. A structured 7-point Likert scale questionnaire was administered to collect data from a randomly selected sample of 135 operational level employees representing all firms. Unit of analysis was at individual level. Scores were obtained separately for organizational commitment, union commitment, industrial relations climate and intention to quit. Correlation coefficient was used to test the hypotheses of the study. A significant positive correlation between the organisation commitment and union commitment was evident indicating the existence of dual commitment. Industrial relations climate was positively related with organisation and union commitment. Both organisation commitment and union commitment were negatively correlated with intention to quit the organisation. These findings revealed that harmonious industrial relations climate is a vital factor for existence of dual commitment and will reduce employees' intention to leave the organisation.

Pyman *et al.* (2010) examines how employee voice arrangements and managerial attitudes to unions shape employees perceptions of the industrial relations climate using data from the 2007 Australian Worker Representation and Participation Survey (AWRPS) of 1022 employees. Controlling for a range of personal, job, and workplace characteristics, regression analyses demonstrates that employee's perceptions of the industrial relations climate are more likely to be favourable if they have access to direct only voice arrangements. Where management is perceived by employees to oppose unions (in unionised workplace), the industrial relations climate is more likely to be reported as poor. These findings have theoretical implications and significant practical implications for employers, employees, unions and government.

Wu and Lee (2010) examine the relationship between industrial relations climate and the employee attitudes towards participatory management in Chinese-, Japanese- and US-invested electronics firms in Taiwan. Among the findings, Chinese firms tended to have a higher level of participatory management and more effective participatory management than US-invested firms in Taiwan. It was also confirmed that the harmony and openness aspects of industrial relations climate had a positive and significant correlation with the effectiveness of participatory management, including the personnel, operational and social matters. It was concluded that multinational corporations (MNCs) which need centralized control of their overseas operations will be less willing to encourage participatory management in their local operations. Finally, it was revealed that the effectiveness rather than the level of participatory management could better predict industrial relations climate.

Snape and Redman (2012) examined the relationship between industrial relations climate and union commitment. Using a multi-workplace sample from North East England, aggregation analysis provided support for

treating industrial relations climate as a workplace level variable. Thus, workplace industrial relations climate was negatively associated with union commitment. However, industrial relations climate moderated none of the relationships between individual-level antecedents and union commitment.

Redman and Snape (2005) empirically examine the evidence for trade union renewal in the UK fire service with aim is solving two main questions. How have union management relations and the industrial relations climate been affected by management reforms?, and to what extent has deterioration in the industrial relations climate affected on unions leadership style and also on union commitment and participation among ordinary members?. The research draws on interviews with managers and union representatives and a survey of fire-fighters in the north of England. The findings indicate that a marked deterioration in the industrial relations climate led to changes in union leadership and to an increase in union commitment and participation amongst ordinary members. The poor climate created the conditions for union renewal by bringing forward union activists with more inclusive styles and by raising membership awareness of the need to vigorously defend their existing terms and conditions.

Deery and Iverson (2005) examined the antecedents and outcomes of labour management co-operation using data drawn from 305 branches of a large unionized Australian based multinational banking organisation. Their findings revealed that perceptions of a cooperative labour relations climate were positively influenced by procedural justice, the union's willingness to adopt an integrative approach to bargaining and management's willingness to share information freely with the union. The findings also indicate that a cooperative management relationship contributed to higher productivity and improved customer-service. In addition, organizational commitment was found to have a positive effect on branch level productivity and customer service, and union loyalty was associated with lower absenteeism.

Webster and Loundes (2002) use new Australian enterprise level data to investigate factors that are associated with cooperative industrial relations climates among major Australian enterprises. They found that organizations which have well developed and bilateral channels of communication between managers and employees and those companies that use systematic and analytical methods for making major decisions tend to have the most cooperative climate of relations between management, employees and unions.

Deery and Iverson (1999) investigates the relationship between industrial relations climate, organizational commitment, union loyalty and bank branch performance. Using Confirmatory Factor Analyses (CFA) with Linear Structural Relations (LISREL) drawn from 460 branches across three time periods, their findings indicate a significant effect of these variables (industrial relations climate, organizational commitment, union loyalty and bank branch performance) on organizational performance.

Wan *et al.* (1997) studied the state of workplace industrial relations climate in the manufacturing sector in Singapore. Based on a survey of 73 manufacturing companies in Singapore and subsequent intensive study of eight of them, it was found that overall labour management relations in the industry were good and had improved over the past few years. Union membership was reported to have increased and this was accompanied by a perceived increase in union role and influence on labour management relations. The findings also highlighted the need to strengthen the communication processes among the three parties- workers, unionists, and management.

Dastmalchian *et al.* (1982) examines the relationships between industrial relations climate and variables reflecting the state of the firm's performance, industrial structure, and overall effectiveness in 28 manufacturing companies. In addition to reporting the patterns of association between each of these aspects, multivariate analyses are employed in order to (i) ascertain the direct and indirect influences of industrial relations climate and other variables under study on company effectiveness, and (ii) examine the assumptions about the direction of causality between industrial relations climate and effectiveness. The results highlight the relationships between the variables and emphasize the importance of conceptualizing industrial relations climate in such a way that can adequately reflect the attitudes and behaviour of industrial relations actors. Path analysis suggests that the pattern of causality is not a simple one but involves reciprocal and feedback relationships.

Using the concept of organizational climate, [Dastmalchian et al. \(1989\)](#) researched into validating a measure of industrial relations climate. Data were collected by means of extensive interviews with management and union representatives and by distributing a questionnaire to 729 employees in two organizations in Canada. The results showed the validity and the reliability of five scales measuring industrial relations climate (harmony, openness, hostility, apathy, and promptness). Four of the climate scales also demonstrated strong within organizations and within group agreement (based on union/non union membership, bargaining unit and departmental affiliation).

### 3. RESEARCH METHODOLOGY

In this study, a cross-sectional study design was used. Cross-sectional survey design is justified on the basis that it concentrates on the phenomenon of interest, which according to this study, is to find out if there is a positive relationship between workers perception of trade unions performance and industrial relations climate.

The target population of this study includes all employees of the petroleum companies with their headquarters and branches listed on the Nigeria Stock Exchange (NSE) for a total of five thousand nine hundred and six (5906) workers. The sample for the study was obtained from the population using a multi-stage sampling that involves selecting a sample in at least two stages or groups when a given large population is divided. In this two-stage sampling design, a sample of primary units is selected and then a sample of secondary units is selected within each primary unit. The reason for adopting this sampling method is due to its convenience in finding the survey sample, as well as its high level of accuracy and profitability ([Panneerselvam, 2008](#)). However, in this study, petroleum companies with their numerous branches in Nigeria are considered. Therefore, the first stage or group was to consider the branches of the petroleum companies located in the two geopolitical regions of Nigeria (North and South) using stratified sampling. The assumption was that the states (sampling units) within each region are similar and the regions are dissimilar. Then, the study focuses on the branches of the petroleum companies in the southern region of Nigeria because it houses virtually more branches of the petroleum companies and is also a region where oil exploration and extraction activities predominate. In addition, after selecting some states in southern Nigeria based on their characteristics, the study used cluster sampling to identify branches of the selected state by assuming different branches of each state as their conglomerates. In each selected branch, random sampling is used to select the sampling units.

To determine the sample size for the study, the sample size formula for finite population according to [Cochran \(1963\)](#) is used;

$$SS = \frac{Z^2 P(1 - P)}{e^2}$$

Where; SS= Sample Size.

Z = Given Z value (1.96 for a 95 percent confidence level).

p = Percentage of population (i.e. estimated proportion of an attribute).

e = Confidence level (desired level of precision).

P = Population Size.

Therefore,

$$SS = \frac{3.8416 \times 0.5 \times 0.5}{0.0025}$$

$$SS = 385$$

$$NEW SS = \frac{SS}{\left(1 + \frac{(SS-1)}{P}\right)}$$

$$NewSS = \frac{385}{\left(1 + \frac{(385-1)}{5906}\right)} = 361 \text{ approm.}$$

New Sample Size = 361

The questionnaire was used for data collection. This was designed according to the objective of the study. The questionnaire was labeled 'Trade Union Performance and Industrial Relations Climate Questionnaire (TUPIRCQ)'. Section A contains questions about the variables examined in the study using the type of closed questions. More specifically, the construction of trade union performance is measured in three dimensions (integrative bargaining; leadership behavior and union density) and the industrial relations climate constructs measuring five dimensions of climate (Dastmalchian *et al.*, 1989) (of harmony, openness, hostility, apathy; and promptness). Respondents are asked to indicate their agreement with each item on a five-point scale, ranging from 'strongly agree' with a score of 5 to 'strongly disagree' with score 1.

To test the validity of the instrument used, the principal component analysis and the varimax rotation and communality test were used using the extraction method. The factor analysis procedure was used to validate the instrument because the set of variables analyzed in the factor analysis extends beyond the test data and since it uses the rating and other criteria measured along with other tests to explore the composition factorial of a particular test and thus define the common traits it measures, therefore, generally preferred in most construction validation exercises. From the communalities in this study and extraction method (varimax rotation), items which could not reach the cut-off of 0.35 according to Meredith (1969) benchmark were dropped. To further demonstrate the reliability of the measuring instrument, Cronbach's Alpha reliability statistics were used.

#### 4. STATISTICAL TEST, RESULTS AND FINDINGS

Correlation analysis and T-test statistics were used to analyze the hypotheses. The correlation analysis measures the nature of the relationship between two or more variables with a system of equations. T - The test measures the difference between two population means when the sample size is large.

**Objective One:** To examine the nature of relationship between integrative bargaining and industrial relations climate variables in petroleum companies in Nigeria.

**Research Question One:** What is the nature of relationship between integrative bargaining and industrial relations climate variables in petroleum companies in Nigeria?

**Hypothesis One:** There is no significant difference between integrative bargaining and industrial relations climate variables in Nigerian petroleum industry.

**Table-1.** The nature of relationship between integrative bargaining and industrial relations climate variables: Correlation analysis. Paired samples correlations

		N	Correlation	Sig.
Pair 1	Integrative bargaining & Harmony	7	.261	.573
Pair 2	Integrative bargaining & Openness	8	.465	.246
Pair 3	Integrative bargaining & Hostility	8	.401	.324
Pair 4	Integrative bargaining & Apathy	7	.263	.569
Pair 5	Integrative bargaining & Promptness	7	-.619	.138

The findings from the correlation analysis Table 1 shows a significant positive relationship between integrative bargaining and four dimensions of industrial relations climate (harmony, openness, hostility and apathy) in Nigerian petroleum industry while there is a negative relationship between integrative bargaining and promptness. This implies that harmony, openness, hostility and apathy have positive influence on integrative bargaining whereas promptness has a negative influence on integrative bargaining.

The findings from the t-test analysis above shows no significant difference between integrative bargaining and industrial relations climate dimensions (harmony, hostility, apathy and promptness) in Nigerian petroleum industry, while there is a significant difference between integrative bargaining and openness as a dimension of industrial relations climate in Nigerian petroleum industry since the p-value is less than 0.05 at a 2- tailed test.

This support the research findings of *Pyman et al. (2010)* that employee's perceptions of the industrial relations climate are more likely to be favourable if they have access to direct voice arrangements. Where management is perceived by employees to oppose unions (in unionised workplace), the industrial relations climate is more likely to be reported as poor. The findings of this study also gives credence to the notion according to *Wu and Lee (2010)* which confirmed that the harmony and openness aspects of industrial relations climate had a positive and significant correlation with the effectiveness of participatory management, including the personnel, operational and social matters. Also, *Deery and Iverson (2005)* findings revealed that perceptions of a cooperative labour relations climate were positively influenced by procedural justice, the union's willingness to adopt an integrative approach to bargaining and management's willingness to share information freely with the union.

**Table-2.** Significant difference between integrative bargaining and industrial relations climate: T-test analysis.

Paired samples test

q		Paired differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error mean	95% confidence interval of the difference				
					Lower	Upper			
Pair 1	Integrative bargaining – Harmony	.22369	.46101	.17425	-.20268	.65005	1.284	6	.247
Pair 2	Integrative bargaining – Openness	.37500	.38724	.13691	.05126	.69874	2.739	7	.029
Pair 3	Integrative bargaining – Hostility	-.07949	.31407	.11104	-.34206	.18308	-7.16	7	.497
Pair 4	Integrative bargaining – Apathy	-.04326	.51624	.19512	-.52070	.43418	-.222	6	.832
Pair 5	Integrative bargaining – Promptness	.03184	.80674	.30492	-.71427	.77796	.104	6	.920

Objective Two: To examine the nature of relationship between unions leadership behaviour and industrial relations climate variables in petroleum companies in Nigeria.

Research Question Two: To what extent does unions' leadership behaviour influence industrial relations climate variables in petroleum companies in Nigeria?

Hypothesis Two: There is no significant difference between unions' leadership behaviour and industrial relations climate variables in Nigerian petroleum industry.

**Table-3.** The nature of relationship between leadership behaviour and industrial relations climate: Correlation analysis.

Paired samples correlations

		N	Correlation	Sig.
Pair 1	Leadership behavior & Harmony	7	.394	.382
Pair 2	Leadership behavior & Openness	8	.455	.258
Pair 3	Leadership behavior & Hostility	8	.304	.464
Pair 4	Leadership behavior & Apathy	7	.602	.152
Pair 5	Leadership behavior & Promptness	7	-.448	.314

Table 3 of the correlation analysis above show that leadership behaviour has a significant positive relationship between industrial relations climate dimensions (harmony, openness, hostility and apathy) while there is a negative relationship between leadership behaviour and promptness. This means that harmony, openness, hostility and apathy have positive influence on leadership behaviour whereas promptness has a negative influence on leadership behaviour.

**Table-4.** Significant difference between leadership behaviour and industrial paired samples test.

Relations climate: T-Test analysis

		Paired differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error mean	95% confidence interval of the difference				
					Lower	Upper			
Pair 1	Leadership behaviour–Harmony	0.15146	0.48283	0.18249	-0.29509	0.598	0.83	6	0.438
Pair 2	Leadership behaviour–Openness	0.38394	0.46404	0.16406	-0.00401	0.77188	2.34	7	0.052
Pair 3	Leadership behaviour–Hostility	-0.07055	0.45653	0.16141	-0.45222	0.31112	-0.437	7	0.675
Pair 4	Leadership behaviour–Apathy	-0.11549	0.42326	0.15998	-0.50694	0.27597	-0.722	6	0.498
Pair 5	Leadership behaviour–Promptness	-0.04039	0.85402	0.32279	-0.83022	0.74945	-0.125	6	0.905

The findings from the t-test analysis above shows that there is no significant difference between leadership behaviour and industrial relations climate dimensions (harmony, openness, hostility, apathy and promptness) in Nigerian petroleum industry, since the p-values are greater than 0.05 at a 2- tailed test.

This confirmed the finding of Redman and Snape (2005) that a marked deterioration in the industrial relations climate result to changes in union leadership and to an increase in union commitment and participation amongst ordinary members. The poor climate created the conditions for union renewal by bringing forward union activists with more inclusive styles and by raising membership awareness of the need to vigorously defend their existing terms and conditions.

**Objective Three:** To examine the nature of relationship between unions density and industrial relations climate variables in petroleum companies in Nigeria.

**Research Question Three:** What is the nature of relationship between union density and industrial relations climate variables in petroleum companies in Nigeria?

**Hypothesis Three:** There is no significant difference between union density and industrial climate variables in Nigerian petroleum industry.

**Table-5.** The nature of relationship between union density and industrial relations climate: Correlation analysis.

Paired samples correlations

		N	Correlation	Sig.
Pair 1	Union density & Harmony	7	.773	.042
Pair 2	Union density & Openness	8	.196	.642
Pair 3	Union density & Hostility	8	-.270	.517
Pair 4	Union density & Apathy	7	.517	.235
Pair 5	Union density & Promptness	7	.492	.262

The Table 5 correlations are positively related except for union density and hostility. This shows that harmony, openness, apathy and promptness have positive influence on union density while hostility has a negative influence on union density.

**Table-6.** Significant difference between union density and industrial relations climate: T-test analysis.

		Paired differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error mean	95% confidence interval of the difference				
					Lower	Upper			
Pair 1	Union density - Harmony	0.38329	0.24862	0.09397	0.15335	0.61322	4.079	6	0.007
Pair 2	Union density - Openness	0.5775	0.45225	0.15989	0.19941	0.95559	3.612	7	0.009
Pair 3	Union density - Hostility	0.12301	0.37787	0.1336	-0.1929	0.43892	0.921	7	0.388
Pair 4	Union density - Apathy	0.11634	0.41094	0.15532	-0.26371	0.4964	0.749	6	0.482
Pair 5	Union density - Promptness	0.19144	0.46214	0.17467	-0.23597	0.61885	1.096	6	0.315

The findings from the t-test analysis above shows that there is no significant difference between union density and industrial relations climate dimensions (hostility, apathy and promptness) in Nigerian petroleum industry, since their p-values are greater than 0.05 at a 2- tailed test, whereas there is a significant difference between union density and two other dimensions of industrial relations climate (harmony and openness) since their p-values are less than 0.05 at a 2 – tailed test.

The finding in this study also supported the view of [Wan et al. \(1997\)](#) was found that overall union membership was increased and this was accompanied by a perceived increase in union role and influence on labour management relations.

## 5. CONCLUSION AND RECOMMENDATIONS

### 5.1. Conclusion

The degree to which trade unions bargain and fight for the rights of their members in others to better their working conditions is paramount, since the performance of an organization is impacted by certain forms of attitude shown by the parties in industrial relations (union and administration). The results confirm that positive perceptions of union performance in offering improvements in the quality of working life to workers were associated with a harmonious industrial relations climate. Therefore, a harmonious industrial relations climate is likely to develop where unions adopt an integrative approach to negotiating problems, where management accepts unions as a legal representative of the wholesome interests of members and treat as a true interested in the organization through union leadership, and where there are fair and reliable procedures for resolving complaints in the workplace regardless of union membership.

### 5.2. Recommendations

Based on the conclusion, the study advocates that unions in the petroleum sector should always encourage and participate in social dialogue and collective agreement to solve their problems with the management in the spirit of give and take. Their demands must be supported by facts and figures and they must avoid adversarial and confrontation strategies in negotiations with management at all times if they want to achieve lasting industrial harmony and sustainable national development. Management must respect the rights of workers, and employees and their unions must take note of employers' prerogatives. In addition, to build lasting trust between unions and

management, the study recommends that complaints be resolved without delay to ensure that the industrial relations climate remains harmonious.

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