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Review Article

Women in Energy Sector in Nigeria: A Survey of Gender and Leadership in the Workplace

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Introduction

Women play a critical role in the country's economy in all areas. Their responsibilities vary within food production, health, childcare, banking, telecommunications, energy and the entire range of survival needs of the country. In Nigeria, the most populous country in Africa, more women are now engaged in the workforce than ever before. For instance, more than half (57%) of women in the 15-64 age range are in some form of employment. Despite this sharing change for good, Nigeria still has some way to go to fully tap the potentials of its large female population in the work place (De Silva, 2016). The obvious change therefore is thatthere is an increasing rate of working women in all areas including the oil and gas industry.

Historically, the oil and gas industry has been male-dominated at all levels, from leadership roles in major corporations to jobs working in mines and on oilrigs (Akinkugbe-Filani, 2018). Compared to other industries, there is an assumption that the number of women in the oil and gas industry is relatively low.

According to a 2017 report by the Boston Consulting Group (the BCG) and the World Petroleum Council (WPC), women only account for about one-fifth (20%) of the workforce in the global oil and gas companies; including the National oil Companies (NoC), and a much smaller proportion in almost every other sector (including, Agriculture, manufacturing, health, etc.) surveyed in the report.

Studies have also shown that women account for a significantly smaller number of workforce in the industry; they constitute less than 22% of employee and just 5% of Boards of Directors (BOD) making the energy sector one of the least gender-diverse sectors in the economy, even thougha much direr female representation is assumed to exist in the technical and field roles.

According to Solanke (2019), "although the industry has begun to appreciate the value of gender balance and how it impacts the populace,we need to see how the Nigerian Government is taking a more active role in trying to push gender balance as actively as it does local content policies."There are various disadvantages to the low level of female participation in the industry. First, energy companies have smaller number of highly qualified candidates to choose from when filling positions, especially in the middle and higher ranks, because many talented women

either never join the industry or drop out prematurely. Second, companies inevitably miss out on higher quality of teamwork, diversity of perspectives, and creativity in solving technical and business problems unlike others with larger percentages of female employees. Third, the industry's relative lack of gender diversity, particularly in the senior ranks, hurts its reputation as a first career choice for women. Left unchecked, this can create a vicious circle that could lead to the industry finding it progressively difficult to recruit women across board.

For the purpose of this review paper, we have segmented the energy industry into five sub sectors: power, renewable energy, upstream, midstream and downstream for oil and gas. The objectives of the review are:

1. Extent of women in the E&P Sector in Nigeria
2. Extent of women ownership in E&P Business
3. Extent of women in the regulatory roles in the Energy industry
4. Extent of women in each of the sub sectors (Upstream, midstream, downstream, power and renewable energy)
5. Women deployment in each sub sector (Upstream, midstream, downstream, power and renewable energy)
6. Challenges facing women workers/ business in the industry
7. Areas where supports are mostly needed to improve and advance women participation in the oil and gas industry.

Methodology

A survey was conducted between September 2020 and March 2021 with sample size of people working in the energy sector. The survey was in two parts, one for employers and the other for employees in the energy sector. The survey was completed by a total of 153 respondents; 118 for employees and 35 for employers; 54% of the TRs completed for the employers and 73% of the TRs completed for the employees. Focus group discussion and interviews with TRs were also conducted.Participants in the focus group and interview were selected randomly from the energy sector. The study was guided by a critical democratic perspective that values divergent and dialogical inquiry, open-mindedness, critical abilities and questioning, equity, and taking alternatives seriously.

The study is guided by Gender difference theory, which was developed by Deborah Tannen. This theory deals with cross-gender communication, male and female gender are often presented as being two separate cultures. In Nigerian organizations employees may be tasked consciously or unconsciously on the basis of gender due to perceptions on cultural and behavioral differences.

From this theoretical stance, we shall elicit and examine TRs' perspectives about the test and their insights regarding the possible growth and impact of women in energy in Nigeria.

Findings of the Study

For Employees

a. Respondents work in various organizations that cut across the energy sector; 31% from power sector, 22.45% from the renewable energy sector, 12% from the downstream in the oil and gas sector, 12.9% in the upstream in the oil and gas sector, 3.5% in the midstream and 22.4% in other areas like marine, technology, Energy sector R&D, aviation, research in renewable energy, regulatory agencies, commercialization and public private partnership.

b. The survey revealed that 84.5% of the respondents are full time staff, 5.2% of them are part time staff 10.3% are contract staff.

c. It was revealed that 52% the respondents have experience in the energy sector for five years and below, 24% of them have experience in the energy sector between 5 years and above, 18.8% of them have experience in the energy sector between 11 to 20 years and 5% of them have had experience in this sector for 21 to 30 years.

d. 55.2 % of the respondents belong to professional bodies like ICAN, IET, IEEE, Nigerian Society of Engineers, Society of petroleum engineers, NIM, ICEN, REAN, NSChE, NSE, APWOMEN, COREN, AWEDI, Nigeria Institute of Public Relations, Solar Energy society, world energy Council, AREA, National Association of Air traffic Engineers, WIEN, SPE, Council for the Regulation of Engineering in Nigeria. 44.8% do not belong to any professional body.

e. 8.9% of respondents do not agree that there is adequate female representation in the Nigerian energy sector while 11.1% think there is adequate female representation in the Nigerian energy sector.

f. 93.2% of the respondents do not think gender should be an issue in assigning job roles on any job in the sector and 2.5% think gender should be an issue in assigning job roles on any job in the sector.

g. Majority of the respondents are graduate trainees at entry level, 43.5%; 23.1% came in as low level staff, 22.2% of them came in as middle management staff, 5.1% came in as top management staff; 5.9% came in through other offices like interns, contract officers and consultants.

h. Majority of the respondents are middle management staff , 52.9%; 15.4% are low management staff, 11.9% of them are top management staff, 11.9% of them are graduate trainees; 3.4% of them are interns and 4.2% of them are either contract officers and consultants.

i. On the most difficult challenges facing female employees in the sector, 29.8% of the respondents ranked lack of adequate training at the top followed by No formal platform to network female professionals which is 18.2%; 16.4% gave a top ranked to Mostly assigned / considered for non-technical roles; 13.7% ranked Gender discrimination

in recruitment at the top; 11.4% picked fewer opportunities in career advancement/ development and 9.1% of them picked lack of role models.

j. 93.2% opined that gender has not been a hindrance in their career development/ progression while 2.5% of them opine that it has been a hindrance in their development and progression.

k. For areas with the lowest participation in the energy sector, 50.8% of the respondents picked upstream E&P technical duties 28.1% of them picked power and renewable energy, 9.6% of them picked downstream technical duties. 6.1% of them picked upstream E&P non-technical duties, 1.75% picked midstream non-technical duties and 0.8% picked midstream technical duties, 0.8% picked downstream non-technical duties.

l. 47.4% of the respondents rated their employers 'good'; 33.6% of them rated them 'excellent' 14.6% of them rated them 'average' and 4.3% of them rated their employers 'poor'.

m. For those who rated their employers 'average or 'poor', a follow up question was asked on what was responsible for their attitude. 63% of them answered this question and majority of the respondents, 36.5% picked No strong laws on gender equity at work place in Nigeria; 27.3% picked other reasons like training on gender sensitivity; 24.3% thinks it is because employer(s) do not think gender issues are worth special considerations and 12.2% of them think Employer(s) attitude due to lack of sensitization on gender issues.

n. 46.6% opine that the major role of WIEN should be advocacy to improve women participation, 25.8% of the respondents feel the major role of WIEN should be mentorship, 17.2% of them feel it should be training, 6.9% of the feel it should be research on gender issues and advise authorities and 3.5% of them picked other reasons like Advising authorities and Reaching out and welcoming every upcoming female professional into the sector warmly.

For Employers

a. Respondents are involved in various sectors in energy; 28.5% from power sector, 22.8% from the renewable energy sector, 5.7% from the downstream in the oil and gas sector, 11.4% in the upstream in the oil and gas sector, 5.7% in the midstream and 25.7% in other areas like academia, construction, Capability development across sectors, Financial support services.

b. 30.3% of the respondents have their organization in the renewable energy subsector, 21.2% of them operate in the area of engineering, procurement and construction, 21.2% are in the power subsector, 6.1% are in gas market, Refining and Distribution; Transport, Storage and Processing as well as Exploration and Production are 3%

each and 12.1% operate in other sectors like manufacturing, insurance and financial support and training.

c. 25.7% of the respondents have most of their female staff in Corporate Services (HR, Admin, etc) department which is majority of the respondents; 17.1% of the respondents have most the their female staff I other departments like customer care department and commercial department; 11.4% of them have most of their female staff in management; 8.6% have most female staff in engineering; 8.6% in finance; 8.6% in operations and 2.8% in logistics. No female staff in geoscience department.

d. For the department with the least number of female staff, majority of the respondents, 28.1% have the least number of female staff in engineering department followed by technical service provider picked by 25% of the respondents; 12.5% picked other and opined that it applies in all departments in their organization; 9.4% in finance and 9.4% in operations; 6.3% have the least female staff in Corporate Services (HR, Admin, etc); 3.1% respondents have the least female staff in management, 3.1% in logistics and 3.1% in Non-Technical Services Provider.

e. 51.4% of the respondents have a structured, deliberate policy on gender-diversity in their organization; 48.5% of them do not have a structured, deliberate policy on gender-diversity in their organization.

f. 88.5% of the respondents opine that Female staff generally advance at the same pace as men and are assessed on same criteria while 11.4% of them feel their female staff generally advance at slower pace than men and they are not assessed on the same criteria.

g. 65.7% of the respondents, do not have a written policy on gender diversity in their organization while 34.3% of the respondents have a written policy on gender diversity.

h. Concerning wages and gender, 94.3% of the respondents pay their male and female members of staff equally on the same role; 5.7% of the respondents pay their female staff lesser than their male counterparts on the same role.

Comparative analysis of number of board members in respondents' place of work and number of female board member

Company	What is the current number of board members in your company?	What is the current number of female board members in your company?
a	6	0
b	5	0
c	3	0
d	3	0
e	2	1
f	5	1
g	4	2
h	4	4
i	7	1
j	2	0
k	8	1
l	3	3
m	3	0
n	7	3
o	8	0
p	2	0
q	6	0
r	3	3
s	8	2
t	2	1
u	3	2
v	3	2
w	8	1
x	8	5
y	15	1
z	9	1
Aa	5	1
Ab	8	2
XD	3	2
AC	7	5
XB	13	4
AV	5	2

The table above shows companies (in codes), the number of board members in the organization and the number of female board members. Majority of these organizations have a low ratio of female compared to their male counterparts. Some organizations do not even have any female board member.

Discussion of findings

The findings from the survey revealed that there are women working in all the sections in oil and energy sectors. These sectors include; Power, Renewable energy, Upstream, midstream and downstream. However, 88.9% of the respondent do not think there is adequate female representation in Nigeria while 11.1 of the respondents think otherwise. This can be tied to the history and culture of Nigeria in the area of gender imbalance that may have been imbedded in the work culture of the energy sector in the country. Even more so is the limited involvement of women in top management boards of regulatory bodies like Nigerian National Petroleum Corporation (NNPC), Department of Petroleum Resources (DPR), Nigerian Content Division (NCDMB), Nigerian Electricity Regulatory Commission (NERC).

Majority of the responses from the survey point to the fact that the representation of women in the energy sector is limited and they are found majorly playing administrative role and more paper work than the technical roles like engineering and other technical support roles. The study on the part of the employers revealed that 25.7% of the respondents have most of their female staff in Corporate Services (HR, Admin, etc) followed by 17.1% of the respondents that played other non-technical roles such as customer care and commercial functions; 11.4% of them have most of their female staff in management; 8.6% in finance making it a total of 62.8%. Hence, there are fewerwomen in the more technical areas. It is interesting to know that the study revealed that men and women are given equal opportunities in terms of job roles and wages and 93.2% of the respondents (employees) opined that gender has not been a hindrance in their career development/ progression. So, the pertinent question is: why are there still a low representation of women in some subsector of the energy industry?

The following major challenges were identified by respondents and discussed in this study;

a. Representation of women in regulatory bodies in the energy sector
b. Representation of women at the top board
c. Inadequate training and mentorship
d. Laws and policies on gender equality in the sector

a. Representation of women in regulatory bodies in the energy sector

First of all, reaching women that work in regulatory bodies like NNPC, NERC, etc was a bit of a challenge because majority of them were not willing to fill the questionnaire if they had to put in the name of the organization they work for. It may take extra creativity and a more constructive strategy to get them to respond to the current survey as their response will go a

long way. In the energy sector, the gender dimensions of risk exposure and benefits, including access to services, are increasingly recognized as part and parcel of effective policy making and project design (ESMAP, 2013: ESMAP, 2018). It is believed that active participation in policy making and design will also go a long way for positive growth and impact for women in the energy sector.

The study also revealed that one of the challenges women face in the energy sector is as a result of low representation of women in the regulatory bodies. Questions that arise from this phenomenon are: Why is the involvement of women in the regulatory body limited? Is there an existing policy that states that women can't go past a particular level, working for the regulatory body?

b. Representation of women at the top board

A view of the comparative analysis of the total number of members of board of director in each organization versus the number women who are members of this board shows that majority of them have a higher ratio of men than women. However, there are a few exceptions where we see that all the members are women though the board may be considered small in size. This is in line with a study done by Boston Consulting Group in collaboration with the Women in Energy Association in Europe. Their finding revealed that "Women account for a mere 26% of the total workforce in the energy sector, but their representation at higher levels in the organization is even less: 23% of managers and 17% of board members are female on average". This issue is not limited to Nigeria alone.

c. Inadequate training and mentorship

The study also revealed that there is the need for existing bodies for women representation in energy to speak out for them, create a platform for necessary training, mentorship and research on gender issues. When asked for their expectation of an existing body for women in energy (WIEN), 46.6% opine that the major role of WIEN should be advocacy to improve women participation, 25.8% of the respondents feel the major role of WIEN should be mentorship, 17.2% of them feel it should be training, 6.9% of the feel it should be research on gender issues and advise authorities and 3.5% of them picked other reasons like Advising authorities and Reaching out and welcoming every upcoming female professional into the sector warmly. In addition to these expectations, they may pay active roles in influencing the policies in favour of gender equality.

d. Laws and policies on gender equality in the sector

In Nigeria, there is hardly any law that protects and focus on women apart from the African Charter of Women Rights. The Nigerian Constitution, despite prohibiting gender-based discrimination, does not protect women's rights. An ideal constitution would be drafted with the input of every segment of society, but the 1999 charter was made without consulting Nigeria's women, and its language reflects this (Odiaka, 2017). This to a large extent is

holding back the economic progress of the country. According to the CFR Women and Foreign Policy Program's digital report, Growing Economies Through Gender Parity, which visualizes data from the McKinsey Global Institute, Nigeria's gross domestic product (GDP) could grow by 23 percent—or $229 billion—by 2025 if women participated in the economy to the same extent as men. (Campbell, 2019).

Organisations in Nigeria, generally do not have written policies that address gender issues in the work place. 51.4% of the respondents have a structured, deliberate policy on gender-diversity in their organization. The question is "are they well implemented?"

48.5% of them do not have a structured, deliberate policy on gender-diversity in their organization. It may be a lower percentage but it is a significant figure not to be taken lightly.

Conclusion

There are women presence in all sectors and subsectors of the energy sector. However, there is little representation in the technical areas of the energy sector like engineering sector. In the oil and gas field, there is lower representation in the upstream. Women deployed in each sector are relatively low and in the subsector, they are seen to be more active in administrative/ Human Resources unit.

There are a number of women who either run businesses in the energy sector or are members of the board of directors but the ratio compared to their male counterparts is low.

The study so far revealed a gap in the area of representation of women in the regulatory body. It is not so sure, the actual percentage of women who play active and top roles in the regulatory bodies. This is relevant because it will go a long way in promoting gender equality in the energy sector.

The culture of the environment has been infuriated into the work environment hereby affecting the approach to gender equality in the work place. This is another gap that needs to be bridged.

Other challenges faced by women working in the energy sector include Gender discrimination in recruitment, fewer opportunities in career advancement/ development, poor mentorship, being assigned non-technical roles even if they can handle technical roles and lack of adequate training.

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