

Challenges of Socio-Environmental Sustainability and New Media Potentials: An Empirical Evidence from Nigeria

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Abstract

In 1987, the Brundtland report - “*Our Future*” was initiated by the World Commission and has since then revolved to the recent call for “sustainable development goals” (SDGs), which reinforced the need to drive a sustained economic development, improved people’s welfare and environmental wellbeing across the globe, however, as time has proven, this effort has remained largely a shadow of itself. Nigeria presents a typical example of this contention – where corporate-stakeholder’s conflict has become the norm – due to the perceived negligence of the environment and marginalisation of the locals where petroleum resources are explored, hence, alternative and effective measures of engagement is required to address these phenomena. Thus, by relying on empirical evidence drawn from 33 respondents across Nigerian petroleum industry, this study proposes that new social media can be securely integrated by international oil organisations/businesses, to amplify stakeholder’s engagement and socio-environmental sustainability in the country.

Key Words: Socio-environmental sustainability, New social media, Stakeholder engagement, Petroleum Industry, Nigeria.

Introduction

As the global community embraces the new order of increasing digitalisation, which has precipitated the surge of mobile and social media platforms for communicating and exchanging information and business ideas more effectively, *this study proposes that new social media can be securely integrated* by international organisations, *to amplify stakeholder’s engagement and socio-environmental sustainability* - which has continued to suffer set back (Infante et al., 2013; Helliwell et al., 2015). It’s been nearly 4 decades now since the Brundtland report (1987) was initiated by the World Commission, to address sustainability and the need for international businesses - especially the petroleum operators - to embrace greater transformation – that goes beyond just financial drive – in order to focus more on the social-environmental impact of their operations (Silvestre and Gimenes, 2017). This clarion call has been coming a long way and in recent times has been reinforced in the sustainable development goals (SDGs). Yet, it remains to be seen taking effect in practical sense (Caplin, 2015; Anis and Siddiqui, 2015) – especially across developing countries such as Nigeria – where government seem to have retreated in living up to its bills – including holding oil corporations to account for their socio-environmental responsibilities (Obi, 2010; Nwagbara, 2013; Otobo, 2016).

As Ahmad et al. (2016) noted, while it is fair to state that some element of sustainability goals has been achieved in the context of eliminating extreme poverty in some regions of high deprivation across developing countries, much more remains to be desired in terms of environmental awareness and protection of the eco system as well as social inclusion of the local communities where petroleum resources are sourced (Silvestre and Gimenes, 2017). Importantly, it is this contention that has shaped the nature of uncordial relationship that has existed for many years between the international oil corporations (IOCs) and the local communities (Silvestre and Gimenes, 2017) - such as the Niger Delta region of Nigeria – which host the international oil companies (Erapi, 2011; Idemudia, 2010). As a consequence, Gunter (2015) and Caplin (2015) have continued to question the efficacy of sustainability and its prospect of meeting the needs of current and tomorrow's generation – especially in the areas of high deprivation - such as Nigeria (Otobo, 2016), which is the focus of this study.

Nigeria is potentially the six largest oil producing country in the world and has for the past 50 years or so provided a petroleum resource operating platform for the IOCs, however, the country has been embroiled in a corporate-stakeholder quagmire for the most part of the period in which this relationship has existed (Obi, 2010). The reasons are not in isolation of a range of accusations labeled against the IOCs and the government by the local population, which includes their disengagement and marginalisation in the distribution of the oil exploration proceeds. Furthermore, the local have (amongst others) accused the IOCs of destroying their environment (air, the land and the water) and their source of livelihood - through high emission discharge, oil spillage and gas flare, which has become the bane of petroleum operation in Nigeria (Idemudia, 2010; Nwagbara, 2013).

Thus, it can be said that the sustainability effort designed to compel organisation to be socio-environmental focus has not exactly helped to bring about positive impact across Nigeria and other regions of high deprivation (Infante et al., 2013), which essentially precipitates the need to find alternative ways of amplifying socio-environmental effort in the region. To achieve this, this study views that effective engagement and communication with the local communities/population is critical (Helliwell et al., 2015), which new social media technology can herald – giving its (instantaneous) potential to facilitate, store, retrieve and disseminate unfiltered information (Howe, 2009; Paternoster, 2012; Olson, 2012) – that are crucial in promoting sustainability effort (Gunter, 2015) - especially with regard to social and environmental wellbeing of the regions. Thus, relying on the empirical evidence from selected firms in Nigerian petroleum industry, this study proposes that new social media can be effectively employed to strengthen democracy, inclusion, participation, transparency, information dissemination and stakeholder's engagement, which are potentially the core of socio-environmental sustainability. The remainder of the study is structured as follows: understanding socio-environmental context of sustainability effort, between traditional and new media impact on sustainability, conceptual framework: new media and socio-environmental sustainability, Nigeria's context of socio-environmental dilemma and new social media prospect. methodology and findings of the study.

Understanding social-environmental context of sustainability effort

Broadly, sustainability as explained by Griggs et al. (2015) and Loewe (2015) is a concept that was initiated in the 1980s by the United Nation (UN), to advance humanity and environmental well-being - by ensuring that while the needs of current generation are met; that the process of meeting such needs do not endanger the prospect of meeting the need of future generations. This concept is significant – giving the spate of environmental damages and heightened corporate-stakeholder conflicts that have been witnessed across the globe as a consequence of the impact of the operations of the international businesses (Robertson,2014) and the disengagement of the local populations where these multinationals operate (Sachs, 2012, 2015). Essentially, the sustainability concept has been underpinned by three key pillars/spheres- namely the environment, the people and the economy, which simply provides that humans must endeavour to be efficient in managing the environment (climate), in considering the people (public) and in ensuring that the economic rent is justifiable/sustainable during the process of executing their businesses (Jackson, 2011; Jacques, 2014). It is however, important to note that this study will be focusing more the first two pillars – environment and the people.

The concept gained traction in 1987 with the launch of the “Our Future” – the Brundtland Report (WCED, 1987), which was followed by numerous other world commissions - such as the 1992 Earth Summit in 1992 and 1997 in Rio (Abrahamson, 1997). The effort had also brought about the 2000 Millennium Summit in New York (Wackernagel and Rees, 2000), 2002 Johannesburg International Summit (Jackson, 2011) and all the way to the most recent Sustainable Development Goals (SDGs) held Paris in 2015 (Griggs et al., 2015), which subtly harmonised the collective agenda of sustainability effort from the past through to the future (Rockström and Klum, 2015). The SDGs encompasses 17 goals –harmonised into five themes namely ‘the people and our planet’, prosperity, peace, and collaboration/partnership (Sachs, 2015), however, for the purpose of this study, attention will be focused on the fifth theme - ‘the people and our planet’, which aligns with social and environmental sustainability.

In the context of people (or human) or social sustainability of the people/human beings, the SDGs framework provides regardless of geographical location, status, race or gender etc, that everybody (human) must be given the empowerment to reach their potentials (Rockström and Klum, 2015) and this can only be achieved via adhering to the principle of equality in opportunity, security, ramification of life and dignity amongst other human essentials (Helliwell et al., 2015). The ‘Our Planet’ context or environmental sustainability places greater emphases on the need to intensify the protection of our planet from natural disaster/catastrophe, by embracing a sustainable means of managing how natural resources are explored, produced, distributed, consumed and finally disposed of (Schmidt et al., 2015). This (it is hoped) will help to reduce/mitigate excessive discharge of carbon emission and other pollutions as well as climate change, which are disastrous to the environment and ecological system (Loewe, 2015). Nonetheless, Schmidt et al. (2015) noted that while some progress may have been achieved– in terms of the eradication of extreme poverty and control of deadly diseases such as Ebola, aids and malaria; more remains to be desired with respect to the people and the environment at large – especially in the region of high deprivation - where government tend to have resigned their responsibilities (Griggs et al., 2015). The recurring explanation for this problem is that

international companies supported by the government (especially in the oil sector) have continued to place a disproportionate premium on financial agenda (Robertson, 2014) - while disregarding/disengaging the people and the environment (Silvestre and Gimenes, 2017). As a consequence, corporate-stakeholder's conflicts and insurgency has become the norm, but worse still, environmental degradation (air, land and water pollution) and extreme weather conditions such as unusual storm, flood, drought and erosion are increasingly becoming more frequent across regions (such as Nigeria) where multinational explore natural (petroleum) resources (Idemudia, 2010; Nwagbara, 2013). The foregoing is indicative of the challenges of sustainability, which many analysts have linked to the issue of stakeholder's engagement, hence the need to re-calibrate a new vision of socio-environmental sustainability that is shaped around communication and participatory engagement (Sachs, 2015), which the new social media imperatives can help facilitate (Khalil, 2013; Hacker, 2011; Gunter, 2015).

Between traditional and new social media impact on sustainability

According to Meraz (2009), the traditional (or old) media (such as TV, radio, magazine, newspaper, billboard and direct mails etc) has come of age, although, it has remained a relevant medium of marketing and advertisement of products and services (between business to businesses and customers) as well as a contemporary means of communication and engagement (Jenkin, 2006; Schultz et al., 2011; Martin, et al., 2015). Nonetheless, as time changes – so does the expectation of stakeholders, who no longer want to continue to pay the high cost of using the platform, besides, the current dynamic of digitalisation means that the traditional media is slow, opaque, censored, top-down oriented and controlled, which makes it vulnerable to manipulative, pre-produced and polished contents (Schultz et al., 2011). As a consequence, it is also viewed as a disables active stakeholder's involvement and communication (Bruhn et al., 2012), hence, alternative medium of stakeholder engagement became necessary, which precipitated the emergence of new social media technology (Bruhn et al., 2012).

Viewed as the exact contrast of traditional media, the new social media (which includes but not limited to Facebook, Twitter, My Space, LinkedIn and Instagram) emerged as an alternative platform - to break the myth of communication and participatory engagement, which the traditional media could not address (Clarke and Braun, 2014). The core of new social media is that – it is quick, instantaneous, unfiltered and can help facilitate expanded communication space, decentralised information flow and a reinforced transparency – that are crucial for enhancing stakeholder's engagement and socio-environmental sustainability (Martin, et al., 2015). Following this direction, Gunter (2015) and Mainwaring (2016) illuminate that the challenges of socio-environmental sustainability amongst oil companies find centrality in the negligence of the environment and disengagement of the stakeholder's in regions where petroleum resources are being explored. The new social media is viewed as a veritable alternative (Newhouse, 2012) via which oil companies can communicate/ engage the public with respect to their social well-being and involvement in the campaign against environmental degradation (Gunter, 2015; Mainwaring, 2016), which can potentially help form basis for cordial corporate-stakeholder relationship across the oil-producing region -such as Nigeria – which is under the shadow of corporate-stakeholder conflict (Idemudia, 2010).

The problem however that not too many companies appear to be excited about embracing new social media (Ovelgonne et al., 2017), the reasons are not isolated from the challenges that may range from fear of losing power and control of information flow to the public to threats of fake news and cyber-attacks, which has taken the digital world by storm (Rightmier, 2017). Nonetheless, Watkins (2014) and Wheatley et al. (2016) encouraged that all hope is not lost on new social media, provided that users/organisations adopt a safety management culture, which must include educating and training users, using of updated cyber-security programmes and the involvement of all stakeholder in the business chain, to ensure that a holistic campaign is realised against the challenges of new social media (Khalil, 2013).

Studies on sustainability through new social media

Sustainability is a topic that has potentially matured over the years (Robertson, 2014), however, achieving sustainability through new media technology is an area that is increasingly gathering momentum amongst academic researchers and practitioners across different disciplines (Friesen and Lowe, 2012; Griggs et al., 2015; Loewe, 2015). Grabher (2002) evaluates how new media can be employed to address “*fragile sector, robust practice*” and protect the ecologies, while Richards’s (2004) study intimates new media “*as a potential key to a sustained cultural change*”. Similarly, Green et al. (2005) explained why connecting “*through information and communications technologies*” can make sustainability a reality, hence, Fenton’s (2008) article mediates “*hope in new media*”. Furthermore, new media was viewed as a possible key to reinventing marketing – through “*sustainability of ICT interventions*” (Chib and Zhao, 2009), which is crucial for managing “*the environmental imperative*” (Kotler, 2011). This is consistent with Giroux’ (2011) “*public values in the age of the new media*” and Friesen and Lowe’s (2012) “*promise of social media*”, which essentially tallies with Servaes et al (2012) *framework of sustainability indicators for ‘communication for development and social change projects’*. While the foregoing studies are conceptual in nature, they have essentially helped in providing insight into the imperatives of new media in enriching sustainability effort in different contexts, however, to build on this enrichment process, this current study adopts a qualitative-empirical method, to provide more nuanced understanding of the phenomenon of socio-environmental sustainability and new social media imperatives. The conceptual framework is the focus of the following section.

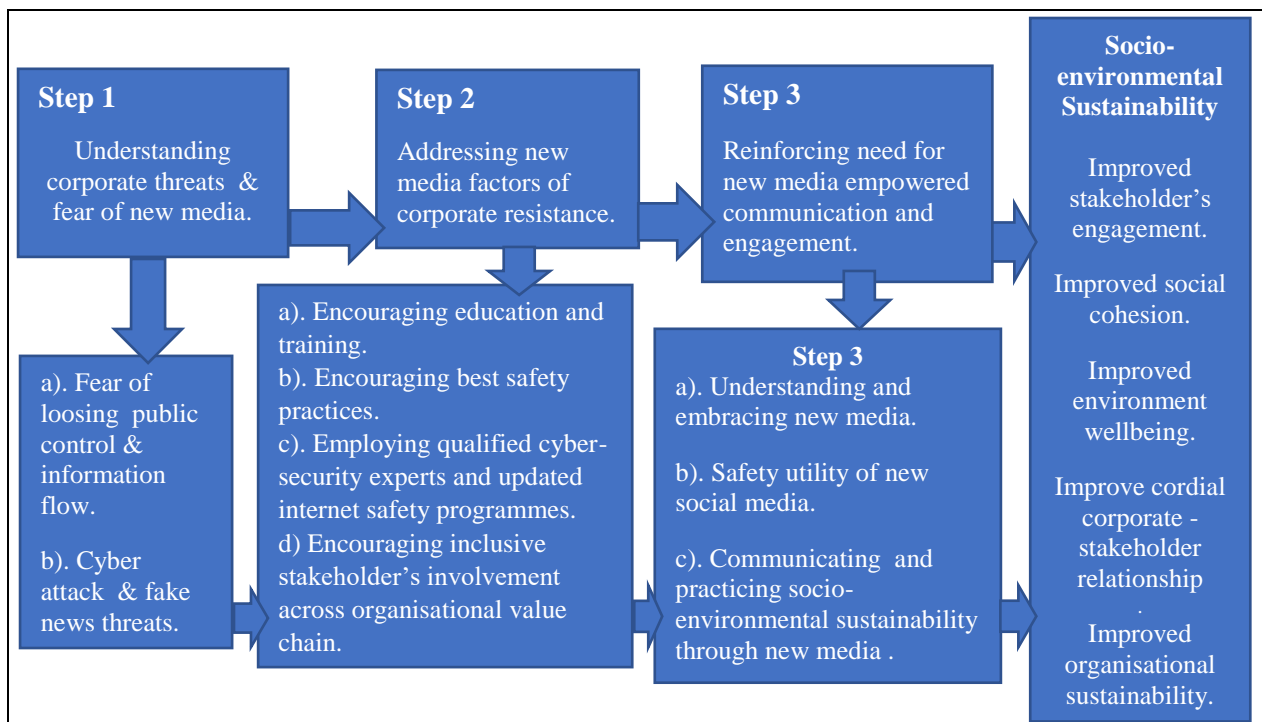
Conceptual framework: New social media and socio-environmental effort

The significance of technology and telecommunication advancement is a well-documented area of study (Newhouse, 2012; Schivinski and Dąbrowski, 2013) – particularly with respect to how multinationals - particularly oil companies - can improve safety and environmental protection during petroleum resource explorations - on both land surface and beneath the sea (Mainwaring, 2016). What appears to be gaining traction in recent time across media outlets however – is the lack of corporate commitment to integrate new social media in communicating

and practicing socio-environmental sustainability (Paterson, 2013), which is critical in calibrating corporate-stakeholder's relationship - in the regions where petroleum resources are being explored and (Friesen and Lowe, 2012; Gunter, 2015). As Selvaganapathi and Raja (2012) remarked, unfortunately, the new social media has become a formidable tool – due to reasons associated with losing corporate control of information flow and vulnerability to cyber-attacks, hence it is largely resisted by corporations in the oil sectors (and beyond) – despite its potentials in facilitating effective communication and engagement potentials.

As illuminated by Gunter (2015) and Mainwaring (2016), lack of effective communication and engagement has remained at the centre of the rising conflict between oil companies and the local populations -where oil resources are being sourced and Nigerian – Niger Delta region is a typical instance of this contention (Idemudia, 2010; Nwagra, 2013). This study therefore proposes that where there is a will to effectively communicate and engage the people in the exploration process and in the campaign for social inclusion and environmental protection, there will be greater prospect for a sustained cordial corporate-stakeholder relationship in the region, which is a win-win situation for both oil companies, the locals and the environment at large (Mainwaring, 2016). However, in order to harness the socio-environmental gains of new social media, the study essentially compels that the reasons driving corporate resistance of it (new media) should be confronted and engaged with (Ovelgonne et al.,2017). As observed by Watkins (2014), fear of losing control of information flow remains a traditional corporate challenge – which can be resolved over time through improved education and better awareness. However, the issue of cyber-attack is an area that can be tackled head on through expedited actions, which includes understanding and confronting the reasons for corporate resistance of new media- through education, training, employing best security practices and inclusion of stakeholder in the whole gamut of new media awareness and utility and Wheatley et al. (2016). Figure 1 below illustrates this viewpoint.

Figure 1: New Social Media for Improved Socio-Environmental Sustainability (NSM-ISES)



As can be gleaned from the above diagram, the NSM-ISES framework explores three key phases, to illustrate how new social media can be securely employed by oil explorers, to improve socio-environmental sustainability. In step 1, the framework provides that the factors driving corporate fear and resistance of new media should be understood and (in step 2) effectively addressed. Step 3 of the framework reinforces the need for new media empowered communication and engagement, all of which can help improve stakeholder engagement, social cohesion, environmental wellbeing, cordial corporate-stakeholder relationship and organisational sustainability (###). Thus, the NSM-ISES framework can be useful in promoting socio-environmental sustainability in the regions where oil companies source their petroleum resources.

Nigeria's context of socio-environmental dilemma and new social media prospect

Nigeria is a country of over 180 million with abundance of petroleum resources, which has attracted pools of international oil companies (IOCs) (Shell, BP, Chevron, Elf, Mobil, Agip, Gulf and Texaco etc) and indigenous ones to the Niger Delta Region – where these resources are explored and produced (Idemudia, 2010; Okpanachi, 2011). However, as many writers have provided, the experience of the region has remained largely that of socio-environmental conundrum, whereby the locals have continuously decried the appalling manner in which they have been disengaged and their voice marginalised by the IOCs and the government – in the whole process of distributing proceeds from the resources extracted at their backyard (Obi, 2010; Anifowose, et al., 2012; Gupta, 2017). Beyond being marginalised, Nwagnara (2013) noted they are also highly aggrieved that their health is being endangered much as their source of livelihood, which is increasingly dwindling away each day – considering the rate of environmental degradation that the region has suffered over the past 50 years or so – following

the discovery of petroleum resources and the arrival of oil explorers (Ambituuni et al., 2014; Gupta, 2017). Indeed, the dilemma of air pollution, land and sea contamination that stems from the operations of the oil companies are well documented as well as the long history of agitations and insurgency by the locals (including thugs and militias) – who believed that they deserved to be better engaged and carried along in the matters concerning oil exploration in their region (Nwagnara, 2013;). Engagement appears central to the issue of socio-environmental sustainability in Nigeria (Asaolu et al., 2012; Umeokafor et al., 2014; Gupta, 2017), hence new media technology – which is a veritable medium of participatory engagement can be instrumental in facilitating.

A good number of studies in Nigeria have engaged sustainability in different capacities, some of which includes Ojo's (2003) context of "*mass media and the challenges of sustainable democratic values*", Obayelu and Ogunlade's (2006) "analysis of the uses of information communication technology...for empowerment and sustainable poverty alleviation" and "*sustainable grass root development*" (Ojo, 2014). Furthermore, Salawu's (2008) view of "*ICTs for sustainable development*", Safar and Salman' (2010) "*factors affecting sustainability of internet usage*", Wonodi, et al.' (2012) use of "*social network analysis for decision-making process*", Ogunjinmi et al.'s (2013) "*media coverage of nature conservation and protection*" and Edewor et al.'s (2014) "*ICTs and sustainable development*" effort are some of the studies on the potent of communication technologies across different pillars of sustainability. While these studies have helped to enrich the process of understanding the importance of communication technology; the current study adds to this enrichment process by using the empirical lens of petroleum firms in Nigeria, to propose that new social media can be securely integrated to promote socio-environmental sustainability – in the conflict-ridden region of Niger Delta.

Methodology of study

This section presents the methodology (including method, data sample and analytical framework) adopted in conducting this study, the following sub-section explains the method.

- ***Method***

The study appropriates qualitative method, which according to Robson (2011) relies on the use of words to analyse qualitative/empirical data, whereby the researcher proceeds from data to link theory, in order to find answers to the objectives of inquiry. Drawing from Saunders et al.'s (2012) "onion model" of research (ROM), 6 key layers of method – which includes research philosophy, approach, strategy, choice, time horizon and procedure/technique were appropriated, to address the inquiry of the study. Interpretivist philosophy was chosen for this study over positivism - which is driven by structured and scientific procedures (Silverman, 2013). The choice of interpretivism here is based on the predication of social constructionism – which according to Creswell (2013) views human reality as a consequence of the construction of social actors, who must be qualitatively engaged (via interview, focus group, documentary

archives and observation) – in order to understand ‘how’ they construct reality and the ‘why’ behind the ‘how’.

It is to this end that a semi-structured, face-to-face strategy of interview was adopted, to achieve this interpretivist objective (Bryman and Bell, 2011), which scholars view as a “*very practical side to qualitative*” mechanism (Patton, 2012: 89) – that strives on useful discursive space, open-ended question and real-time responses (Rajasekar et al., 2013). The choice of interview strategy was predicated on its ability to facilitate gathering rich (raw) data, which can be qualitatively and critically analysed, to deepen scholarship on the subject of research (Saunders et al., 2012). In line with interpretivism, the study adopts the inductive approach, which proceeds from specific to general, gathers and analyses data – to link theory – via critical analysis. The researcher of the study is not separated from the research - hence value-laden, but most importantly the study observers’ ethics – wherein the end justifies the means of conducting it (Creswell, 2013).

- **Data Sample**

The Nigerian petroleum industry is a sector that has attracted numerous international oil companies (Shell, BP, Texaco, Elf etc) and their sub-subsidiaries to the Niger Delta regions, as well as the indigenous oil operators. It is from this list that **4 oil firms** were selected and a total of **33** managers and non-managerial staff interviewed, to provide their honest opinion in response to the questions of the study. Each of the interviews (which was digitally recorded for manual transcription) run between 22 and 30 minutes and it must be noted that the interviewees were formally contacted and given clarity about the aim of the study as well as assured of their confidentiality, respect and freedom to discontinue the exercise – should the case arose. The research, therefore, is guided by ethics of confidentiality and best academic practice, which is continued in table 1 below.

Table 1: Data Brief

No	Code	Work Description	Male/Female	Education	Experience
<i>Petroleum Firm One (PFO)</i>					
1	PFO:01	Operation Manager	M	OND, HND	7
2	PFO:02	Health and Safety Manager	F	BSc, MSc	6
3	PFO:03	Line Manager	M	HND, MBA	8
4	PFO:04	Non-Managerial Staff (NMS)	M	HND	5
5	PFO:05	NMS	F	OND	4
6	PFO:06	NMS	M	BSc	4
7	PFO:07	NMS	M	MSc	N/A
8	PFO:08	NMS	F	N/A	6
		Total PFO respondents = 8			
<i>Petroleum Firm Two (PFT)</i>					
9	PFT:09	General Supervisor	M	MSc	7
10	PFT:10	Senior Manager	M	MBA	6 plus
11	PFT:11	Area Manager	F	BSc	7

12	PFT:12	Non-Managerial Staff (NMS)	M	MSc	N/A
13	PFT:13	NMS	M	MSc	5
14	PFT:14	NMS	F	BSc	6
15	PFT:15	NMS	F	OND, HND	5
		Total PFT respondents = 7			
<i>Petroleum Firm Three (PFTH)</i>					
16	PFTH:16	Marketing Manager	F	MSc	7 plus
17	PFTH:17	Operation Manager	M	MSc	6 plus
18	PFTH:18	Office Manager	M	BSc	5
19	PFTH:19	Non-Managerial Staff (NMS)	M	HND	6
20	PFTH:20	NMS	F	MBA	4
21	PFTH:21	NMS	F	HND	5 plus
22	PFTH:22	NMS	M	HND	6
		Total PFTH respondents = 7			
<i>Petroleum Firm Four (PFF)</i>					
23	PFF:23	General Operations Manager	F	MSc, PhD	8
24	PFF:24	Marketing Manager	M	MBA	7
25	PFF:25	Public Relations Manager	M	MBA	6
26	PFF:26	Branch Manager	F	MSc	6
27	PFF:27	Non-Managerial Staff (NMS)	M	HND	7
28	PFF:28	NMS	F	OND	5
29	PFF:29	NMS	M	BSc	4
30	PFF:30	NMS	M	MSc	5
31	PFF:31	NMS	M	MSc	5
32	PFF:32	NMS	F	HND	6
33	PFF:33	NMS	F	MSc	5
		Total PFF respondents = 11			
Total: 33		Total Managers: 13 Total NMS: 20	M = 19 F = 14		Min work experience : 4 Yrs
Key Guides:					
PFO:01 - PFO:08 = Petroleum Firm One (PFO)					
PFT:09 - PFT:15 = Petroleum Firm Two (PFT)					
PFTH:16 - PFTH:22 = Petroleum Firm Three (PFTH)					
PFF:23 - PFF:33= Petroleum Firm Four (PFF)					
NMS = Non-Managerial Staff					

As can be seen from the above table coding was used to represent details of interview brief - to enhance confidentiality and anonymity of participants, who were selected based on the on the minimum of 4 years work experience and minimum educational qualification of ordinary national diploma (OND). As Saunders et al (2012) and Creswell (2013) illuminates, this is to ensure that they are well situated to provide informed and honest information on the topic of research inquiry. The following section presents the analytical tool used in analysing the empirical data.

- ***Framework for Data Analysis***

Haven manually transcribed data gathered from respondents, the data were analysed using thematic textual analysis (TTA), to make sense of data - relative to the objectives sought in the research inquiry – which evaluates the imperative of new media in enhancing socio-environmental sustainability in Nigerian petroleum industry. According to Braun and Clarke, (2006; 2014), TTA can be considered a veritable analytical tool for identifying themes and patterns in any given speech, discourse and textual extracts (amongst other forms of data sets), in order to effectively respond to research inquiry. For Bryman and Bell (2015), “thematic thinking” is central to TTA, which essentially is the prospect of establishing themes within text corpuses – through rigorous examination of the meaning, context and textual structures employed by communicators, which - as Braun and Clarke (2014) remarked - can unmask their belief and values system – relative to the trending social factors within the environment. According to Creswell (2013), this form of analytical approach has the potential to provide more in-depth insight into a research study as well as enhance the credibility of the findings.

In this direction, the study benefitted from triangulating interview data with findings of academic literature on socio-environmental sustainability and new social media imperatives, which facilitated drawing themes effortlessly – rather than using pre-determined themes, hence avoiding the possibility of incurring what Cowton (1998) described as “*thematic error or doctoring*”. The whole gamut of the analytical process involved going forth and back the text corpuses in the data sets, in order to annotate key themes and subsequently linking them to theory and the research objectives (Saunders et al, 2012). The process had enabled the researcher to simultaneously investigate the intertextuality of texts corpuses, code text from both the interview data and the extant literature and converge themes established as a consequence (Kristeva, 1980), which Saunders et al (2012) and Creswell (2013) noted can help researchers modify the aim and objectives of their studies. On the hills of the limitation of qualitative methodology- which Silverman, (2013) faulted for not allowing generalisation, the use of TTA provides a painstaking and rigorous analysis of the data sets – to complement the above qualitative limitation, in order to make sense of the data and the reality (Braun and Clarke, 2014) of socio-environmental sustainability and new media prospect in Nigeria’s petroleum industry. The following section presents findings of the study.

Findings of Study.

This section presents the interview data, which are analysed in relationship with the literature explored - using TTA framework (Braun and Clarke, 2014), to evaluate the challenges of sustainability and how new social media can be effectively and securely integrated, to amplify stakeholder’s engagement and socio-environmental sustainability in Nigeria’s petroleum industry, which Fairclough (2013) explained as data intertextuality. In an attempt to address the above objectives, four key themes were established and analysed in turn. They are:

- Illusion of social-environmental sustainability
- The potentials of new social media on socio-environmental sustainability
- Corporate resistance of new media-enabled socio-environmental sustainability

- Embracing new social media for improved socio-environmental sustainability (NSM-ISES)

Illusion of social-environmental sustainability

The reality of sustainability and the near-hopeless effort of the three pillars of economic, environmental and people's development is well documented (Infante et al., 2013; Helliwell et al., 201; Silvestre and Gimenes, 2017), however, these challenges appear redoubled in the developing countries - such as the Nigerian petroleum industry and the Niger Delta region - where international and local oil firms explore their resources (Nwagnara, 2013; Umeokafor et al., 2014; Gupta, 2017). This sentiment is widely shared among respondents, who view social-environmental sustainability as a mere illusion and far from the reality in the country. As exemplified in quotations below:

We are trying our best, but we are yet to start experiencing sustainability in social and environmental terms, it's a big challenge (**PFO:01**).

Do not get me wrong sir, I think we should be discussing **sustainability of illusion** rather, because **no such thing exists as social or environmental sustainability in Nigeria** (PFTH:19)

This country is known to be **doing very poorly in every index** or measurement of **sustainable development**, look out there, the truth speaks for itself (PFF:27).

Is it possible to find anything to do with **sustainability about social justice or social cohesion** in this county? The answer is **capital NO**. Do I really feel that the Nigerian environment is sustainable? Again, **I do not think so** (PFT:13).

In line with the foregoing, respondents "*see no connection between the operations of the oil companies and the overall outcomes of the local population and the environment* (PFO:05) - nor "*good rapport between the locals, the oil firms and the government*" (PFF:29) in the region where oil exploration takes place in Nigeria. This illusive contention of socio-environmental sustainability was continued in the following extracts below:

I find it **impossible** to make **sense of sustainability** in this region of the world. You know, the oil companies have not stopped operating, so **the tension** in the oil region **is continuing** (PFTH:17).

our **facilities** are **still being attacked**, some elements are really determined to go all the way out, but for me, they are just ignorant, because they are **destroying the environment** (PFF:23)

However, for some respondents – who reflect the shared opinions of the majority:

"The **agitators** are to some degree **within their right** to demand **to be engaged and involved in the petroleum affairs**" (PFO:07)

“it is important that the people see that the oil companies are collaborating with the government to combat environmental dilapidation, it’s necessary for peace in Niger Delta ” (PFF:26)

You know, if you ask me - some of the oil companies are trying to support community project and social development, but the average local populists will simply express otherwise (PFT:10).

As can be gleaned from the foregoing extracts, the views taken in the extant literature (Umeokafor et al., 2014; Silvestre and Gimenes, 2017; Gupta, 2017) - reflects the shared opinion of respondents on the **illusion of socio-environmental sustainability** in Nigerian petroleum industry. This consciousness is collaborated in short phrases and texts -which are not limited to “*No such thing, ... sustainability of illusion rather* (PFTH:19), “*doing very poorly in every index... of sustainable development*” (PFF:27), “*no connection between the oil companies... and the environment* (PFO:05) and no “*good rapport between the locals, the oil firms and the government*” (PFF:29). As a consequence, it becomes near “*impossible to make sense of sustainability*” (**PFTH:17**) – particularly with respects to the reality of “*social justice and cohesion*”, hence the “*capital NO*” declaration (PFT:13) to any insinuation that sustainability effort adds up in Nigeria. In summary, the breakdown of social-environmental effort in the region is captured in short phrases such as “*the tension ...is continuing*” (PFTH:17), “*facilities are still being attacked and... the environment*” (**PFF:23**) still being destroyed – as “*agitators...demand to be engaged and involved in the petroleum affairs*” (PFO:07), hence it is vital that “*the people see that the oil companies are collaborating with the government to combat environmental dilapidation*” (**PFF:26**). The potentials of new media on sustainability is the next focus.

The potentials of New social media on socio-environmental Sustainability

As numerous commentators have largely attributed, the continuing corporate-stakeholder conflict across petroleum producing regions (Silvestre and Gimenes, 2017) - such as Nigeria - resides in the manner in which the local populations are perceived to have been disengaged and marginalised by oil firms and the government - in the whole process of distributing the proceeds from the resources extracted at their backyard (Idemudia, 2010; Umeokafor et al., 2014;). Furthermore, the continuing dilapidation of their environment by the activities of the oil companies and lack of government response explain why **effective engagement and communication** of stakeholder – local population has largely remained to be desired in the region (Nwagbara, 2013; Gupta, 2017), which **the instrumentality of new social media has the potential to facilitate** (Khalil, 2013; Clarke and Braun, 2014). This perception is validated in the following excerpts:

Communication technology is **ruling the world**, everything **revolves** around **timely communication**, because time matters, time is a **critical component of sustainability** (PFF:25).

No organisation can survive today without integrating the new communication technologies – to keep up with competitors, but it can also be channeled towards **communicating the people and engaging the environment (PFO:02).**

We believe in technology and change. With new media systems, corporations can do things far more **easily, smarter, quicker, efficient and safer**, which can also **apply to social and environmental concerns (PFTH:16).**

Following similar train of thought, respondents continued:

To be candid, this company has made massive achievement over the years – **thanks to the new innovative communication technology, social media is wonderful and very out-reaching (PFF:24).**

Today, organisations are able to **solve complex matter** -through the use of technology and information systems, so the issue of **social cohesion** and promotion of **friendly environment** can be achieved (PFT:11).

When I mean **competitive edge**, it means companies **can maximise profit** at the same time **carry the people along** and spread the message of **sustaining our climate and future of our children (PFO:03)**

The foregoing extracts complement position reflected in the extant literature, which viewed social media technology as a veritable medium of expanded communication and participatory engagement, which can help to reinforce social-environmental sustainability and cordial corporate-stakeholder relationship. Phrases and short sentences such as “*ruling the world... revolves around timely communication*” (PFF:25); “*Surviving today... communicating the people and engaging the environment*” (PFO:02); doing “*things far more easily, smarter, quicker, efficient and safer*, (PFTH:16) explains why the instrumentality of new social media is considered not only “*a critical component of sustainability*” (PFF:25); but also a “*wonderful and very out-reaching*” (PFF:24) medium. Respondents admitted new media can help to “*solve complex matter including social cohesion, promotion of friendly environment (PFT:11)* as well as enhancing *competitive edge...profit maximisation.... carrying the people along and sustaining our climate (PFO:03)*. Despite these potentials, new media remains relatively resisted – which the following section deals with.

Corporate resistance of new media-enabled socio-environmental sustainability: Implication of fear, control and dominance.

While anxiety over the potentials of new social media is increasingly driving up the number of corporations experimenting with this new innovation in their working systems (Paterson, 2013;

Schivinski and Dąbrowski, 2013), however, as numerous commentators have observed, majority of organisations remains sceptical about integrating or fully optimising the potentials of new media technology – for obvious reasons – **fear, control** and **dominance** (Khalil, 2013; Watkins, 2014). According to some respondents:

Yes, of course we have a **Twitter account** -although it is **not fully active** – pending on when **proper security checks** are put in place (PFF:28).

Some features of our **LinkedIn site** are **currently disabled**, the **Facebook** is on – although it's **reasonably controlled** for **corporate safety** (PFTH:20).

Myspace is one of our key social networks, but it is presently **limited to internal use** only, the IT department is planning to **make it more interactive** (PFT:12)

The company is **considering integrating Facebook**, but that will be **in the future**, for now we **studying the risk dynamic**, **mischievous people** can **exploit the platform** (PFF:31)

Respondents continued along the same line of thought:

Major plans are on the way to make provision for a **safe integration of mainstream social media** in our network, although we are still **using the intranet to streamline** our corporate agenda (PFTH:18)

Indeed, this organisation is striving at the **forefront of new social communication** mechanism, but **Trump is not alone** on this - we are also cautious of the **fake-new syndrome** (PFT:09).

While the foregoing quotations underpin suggestions of corporate resistance of new media-propelled social and environmental engagement, which is largely driven by **fear of cyber-related threats** and other internet discrepancies (Selvaganapathi and Raja, 2012; Khalil, 2013); some respondents link this avoidance behaviour to **culture of dominance and high-power distance**, which Hofstede (1980) does not encourage individuals (of certain class or minority groups) to communicate and be effectively communicated over social-environmental matters. In high power distance culture, Aycan et al. (2000) noted the near impossibility of certain class/groups to summon the courage to voice their opinions, which may appear disrespectful or confrontational to the powers that be (or those at the position of influence/authority) (Ting-Toomey, 1988). A high-power distance culture advocates superior-subordinate (or master-servant) relationship – wherein that superior/master dominates the subordinate/servant, which does not encourage quality of access to resources including information that is necessary for discussing social-environmental matters (Hofstede, 1980). Hence new social media -which facilitates expanded communication space and unrestricted information access (Newhouse, 2012) is resisted in such cultural environment. Umar and Hassan's (2013) study provided a vivid instance of how power distance culture can affect social voice in Nigeria and the implication is well reflected in following empirical extracts below:

You know social media gives power to the people and this is a major problem for power tussle in the country (PFF:30).

that new media can give equal information access and participation opportunity to the public alone explains why key players may want to avoid it (PFO:06).

If new media is enabled across board, it will erode physical barriers and the need for power display and the big-man culture will not let that happen in this country (PFT:15).

empowering the people through new media is the way forward, but this will destroy the fabric of cultural dominance, which the elites and power brokers do not want here (PFF:33).

As can be gleaned from the above extracts, organisations in the Nigerian petroleum industry are well aware of the prospect of new social media in enhancing social development and environmental awareness, however, they are also clearly apprehensive of the **threats and fear** that are associated with integrating new media into their working system, which possibly explain why corporations resist it. Short phrases such as *“not fully active – pending...when proper security checks are in place”* (PFF:28); *“reasonably controlled for corporate safety”* (PFTH:20); *“studying the risk dynamic... which can be exploited by mischievous people”* (PFF:31); *“fake-new syndrome”* (PFT:09) and *“limited to internal use only”* (PFT:12) explain the fear dynamic of cyber threats and how these threats drive corporate resistance. Respondents’ data also reflects fear of losing control and dominance of the public – as a consequence of new media, which is consistent with the high-power distance culture and superior-subordinate relationship (Hofstede, 1980) that characterised the country. For instance, *“social media gives power to the people..., a major problem for power tussle”* (PFF:30) and *“can give equal information access..., participation opportunity... key players may want to avoid it”* (PFO:06); *“erode physical barriers....., need for power display, the big-man culture will not let that happen”* (PFT:15) are some of the phrases that collaborate the above contention. This is because it *“will destroy the fabric of cultural dominance”* in the country *“and power brokers do not want”* (PFF:33) this. Nonetheless, as new media appear to have come to stay, organisations can only find ways to get around living with the threats (Khalil, 2013), which the following section explain how.

Embracing new social media for improved socio-environmental sustainability (NSM-ISES).

While the challenges of socio-environmental sustainability (Gunter, 2015; Mainwaring, 2016) and potentials of new media (Paterson, 2013) in remedying this phenomenon has been well documented; the measures for managing new media challenges and threats have also been disseminated in the extant literature (Rightmier, 2017), which will help make case for organisation to securely integrate this innovative communication technology (Watkins, 2014)

for **socio-environmental effort** and **organisational sustainability**. The foregoing position is collaborated in the statements below:

It does not matter what we do – we still take risks, so why not take a risk on social media and know it better – if it promises better social engagement and safer environment? (PFTH:21).

I do not understand why we are dwelling more on fear rather than putting more attention on combatting the threats – through committing to the right safety practices (PFO:04).

Training, education and supervision of employees, business partners and the public as well as using tested internet security programs are far better ways to defend against internet threats (PFF:29).

The earlier we start encouraging and engaging with new media and the more frequent we utilise new media, the better we become in managing the risk (PFT:14).

Yes, if the culture of ‘I’m superior to you’ or ‘I’m more important’ can be tuned down, I see no reason why new media cannot be encouraged (PFO:08).

Respondents continued in this direction – explaining why new media resistance/avoidance must be addressed, in order to encourage a more pragmatic approach in embracing it (Khalil, 2013) - for better social engagement and environmental attention. The following extract replicates this view:

I believe we can strengthen our process of democracy and develop our social justice system, if we can summon the guts to embrace new social media (PFTH:22).

Transparency and accountability are very difficult tasks to demand from politicians and business corporations, but with new media platforms, all hope is not lost (PFF:32).

It is only through effective implementation of new media that stakeholder inclusion and participation can be realised (PFO:02).

With innovative communication systems, information will be adequately disseminated on matters of stakeholder’s concern, which will trigger participatory engagement in our oil region (PFT:10).

The foregoing remarks tell of the degree to which respondents believed new social media can enhance **social development (and cohesion)** and **environmental protection** in the Nigerian petroleum region – that has been deeply enmeshed in a protracted corporate-stakeholder conflict and requires urgent need of alternative/effective mode of stakeholder’s engagement- which the instrumentality of new social media can bring about. Short phrases such as “*why not*

risk.. social media...– if it promises better social engagement and safer environment”? (PFTH:21), “dwelling more on fear rather than putting more attention on combatting the threats “? (PFO:04), through “*training, education...supervision of employees, business partners.... public and using tested internet security programs*” (PFF:29), “*encouraging and engaging with new media* (PFT:14) collaborative respondents view on the need to embrace new media. This is predicated on the assumption that it will “*strengthen our process of democracy and develop our social justice system*” (PFTH:22), enhance “*transparency and accountability*” (PFF:32) as well as “*stakeholder inclusion and participation*” (PFO:02), but most importantly, it can help to effectively “*disseminate information on matters of stakeholder’s concern*” (PFT:10), for improved socio-environmental sustainability. This proposition forms the basis of “new social media for improved socio-environmental sustainability - (NSM-ISES), which is the conceptual framework of this study. The study is concluded in the following section.

Conclusion

Relying on thematic textual analysis (TTA) of empirical data- extracted from a semi-structured- face-to-face interviews with 33 managerial and non-managerial respondents- that were selected across four firms in the Nigerian petroleum industry, this study proposes that new social media can be securely integrated by international oil corporation, to amplify stakeholder’s engagement and socio-environmental sustainability in the country.

The study reflects the shared opinion of respondents on the **illusion of socio-environmental sustainability** in Nigerian, which is collaborated in short phrases and text -which are not limited to “*No such thing, ... sustainability of illusion rather* (PFTH:19), “*doing very poorly in every index... of sustainable development*” (PFF:27) and no “*good rapport between the locals, the oil firms and the government*” (PFF:29). Hence, for (PFTH:17, it is near “*impossible to make sense of sustainability*” and “*social justice or cohesion*” in the country. Furthermore, statements such as “*tension ...is continuing*” for (PFTH:17), “*facilities are still being attacked and... the environment*” (PFF:23) still being destroyed – as “*agitators...demand to be engaged and involved in the petroleum affairs*” (PFO:07) – exemplify this breakdown of social-environmental effort and stakeholder disengagement.

As a consequence, new social media has been billed as a veritable medium expanded communication and participatory engagement, for enhanced social-environmental sustainability and cordial corporate-stakeholder relationship. Short phrases such as “*ruling the world... revolves around timely communication*” (PFF:25); “*Surviving today... communicating the people and engaging the environment*” (PFO:02); doing “*things far more easily, smarter, quicker, efficient and safer,* (PFTH:16) explains why the instrumentality of new social media is considered not only “*a critical component of sustainability*” (PFF:25); but also “*wonderful... very out-reaching*” (PFF:24). It can also help in solving “*complex matter including social cohesion, promotion of friendly environment* (PFT:11) as well as enhancing *competitive edge...profit maximisation.... carrying the people along and sustaining our climate* (PFO:03).

Despite this acknowledgment, respondents are also clearly apprehensive of the **threats and fear** that are associated with integrating new media, which possibly explain why corporations resist it. Short phrases such as “*not fully active – pending...when proper security checks are in place*” (PFF:28); “*reasonably controlled for corporate safety*” (PFT:20); “*studying the risk dynamic... which can be exploited by mischievous people*” (PFF:31); “*fake-new syndrome*” (PFT:09) and “*limited to internal use only*” (PFT:12) explain this fear factor of corporate resistance of new media. Data also reflects fear of losing control and dominance of the public – as a consequence of new media, which is consistent with the high-power distance culture and superior-subordinate relationship (Hofstede, 1980) that characterise the country. Statements such as “*social media gives power to the people..., a major problem for power tussle*” (PFF:30) and “*can give equal information access..., participation opportunity... key players may want to avoid it*” (PFO:06); “*erode physical barriers....., need for power display....., which the big-man culture will not let happen*” (PFT:15).

Nonetheless, in line with the conceptual framework of this study - new social media for improved socio-environmental sustainability - (NSM-ISES), the majority of respondents make a strong case for the potentials of new media. “*Why not risk... social media... – if it promises better social engagement and safer environment*”? (PFT:21), “*dwelling on fear rather than putting more attention on combatting the threats*” (PFO:04), through “*training, education...supervision of employees, business partners.... public and using tested internet security programs*” (PFF:29) and “*encouraging and engaging with new media*” (PFT:14) tally with this view. This is predicated on the assumption that it will “*strengthen our process of democracy and develop our social justice system*” (PFT:22), enhance “*transparency and accountability*” (PFF:32) as well as “*stakeholder inclusion and participation*” (PFO:02), but most importantly, it can help to effectively “*disseminate information on matters of stakeholder’s concern*” (PFT:10), for improved socio-environmental sustainability

The implication of this study lies on the theoretical framework - “new social media for improved socio-environmental sustainability - (NSM-ISES), which is preoccupied with how the factors of corporate resistance (such as fear, control and dominance) can be apprehended and effectively addressed, to encourage the use of new social media in tackling socio-environmental sustainability issues. The study has (hopefully) made a theoretical contribution in terms of NSM-ISES framework and empirical experience in Nigeria. The study is also limited by its qualitative nature, future studies on this phenomenon will benefit from combining qualitative elements to enhance generalisation of findings.

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