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Corporate social responsibility in Nigeria and multinational corporations in the fight against human trafficking in oil-producing communities¹

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Corporate social responsibility in Nigeria and multinational corporations in the fight against human trafficking in oil-producing communities**Joseph I. Uduji, Elda N. Okolo-Obasi & Simplicie A. Asongu**

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Abstract

In Nigeria, human trafficking is a hidden crime, driven by the current economic situation of the country. The Nigerian government has demonstrated significant efforts to combating human trafficking in the country by creating the National Agency for the Prohibition of Trafficking in Persons (NAPTIP). The incidents of human trafficking in the Nigeria's oil-producing communities have remained among the highest in the country and higher than the national average. The objective of this investigation was to determine the impact of a new corporate social responsibility (CSR) model of multinational oil companies (MOCs) on the fight against human trafficking in the host communities. A total of one thousand, two hundred households were sampled across the rural communities of Niger Delta. Results from the use of a combined propensity score matching and logit model indicated that MOCs hold the key to combating human trafficking by fostering effective partnership across different sectors, if highest CSR priority is assigned to reducing incidents of human trafficking in the oil-producing communities. Embracing the fight against human trafficking should form the foundation of General Memorandum of Understanding (GMOUs) practice, which in turn will provide the enabling environment for more widespread responsible business. As most of the human trafficking in the Niger Delta is exploited by relatives or friends; MOCs should involve traditional and religious leaders in the fight and set up GMOU clusters interventions specifically for anti-trafficking agencies including NAPTIP, the police and immigration to support their actions and improve efficiency.

Keywords: Corporate social responsibility; multinational corporations; oil producing communities; human trafficking; propensity score matching; Nigeria

JEL Classification: J43; O40; O55; Q10

1. Introduction

Human trafficking, a form of slavery, occurs when a victim is forced or coerced into performing actions against his or her will (Sanchez, 2018). This is an international problem (Cho, 2015), especially given insecurity-related international issues and insufficient corporate social responsibility by multinational companies operating in developing countries (Asongu et al., 2019a, 2010b). Globally, it is estimated that there are 20.9 million human trafficking victims; of these, 68% are in forced labour, 55% are female, and 26% are children (Polaris, 2018). Victims of human trafficking come from diverse socio-economic, educational, and cultural backgrounds (Russel, 2018). Victims may be found in sub-urban or rural locations (Raphael, 2017). Human trafficking occurs widely across Nigeria; both internally, such as from villages to cities, as well as between States, and externally through other continental hubs (Okeshola and Adenugba, 2018). Nigeria is a source, transit, and destination country for people subjected to forced labour, commercial sexual exploitation and domestic servitude (Ogunniran, 2009). Major international destinations for trafficked Nigerians include neighbouring West and Central African countries (Cote d'Ivoire, Mali, Benin, Equatorial Guinea, Cameroon, Gabon and Guinea), European countries (Italy, Belgium, Spain, the Netherlands, Germany and the United Kingdom), North African countries (Libya, Algeria and Morocco) and Saudi Arabia in Middle East (Omorodion, 2009). The business of human trafficking in Nigeria has developed to become an organized and lucrative trade managed by syndicates within and outside the country (Ogunniran, 2017). Women and girls are trafficked primarily for domestic servitude and forced commercial sexual exploitation, while boys are trafficked for forced labour in street vending and domestic servitude (Hounmenou, 2018; Ngwe and Elechi, 2012). Such trafficking is sanctioned by international law.

Nigeria ratified the United Nations (UN) protocol to prevent, suppress and punish trafficking in persons, especially women and children in 2001, and passed a national law against trafficking entitled "Trafficking in Persons (Prohibition) Law Enforcement and Administration Act 2003". Nigeria is one of the few African countries that passed such a law (NAPTIP, 2011). Nigeria also passed the Child Right Act in 2003, which deals comprehensively with the issue of child trafficking (NAPTIP, 2011). The government of Nigeria demonstrated significant efforts over the years by disbursing significantly more funding to the National Agency for the Prohibition of Trafficking in Persons (NAPTIP); supporting the signing and implementation of a UN action plan to end and prevent the recruitment and use of children by the Civilian Joint Force (CJTF);

with an international organization, beginning a screening and sensitization campaign to identify and prevent sexual exploitation and abuse of Internally Displaced Persons (IDPs) in the country (United States Department of States, 2018). Economic empowerment and reintegration programmes have tried to address the problem of human trafficking but they have not achieved the results; awareness-raising activities proved to be more vigorous. Despite these initiatives, human trafficking remains a crucial problem in Nigeria, especially in oil-producing areas.

Meanwhile, Nigeria has a maximum crude oil production capacity of 2.5 million barrels per day and has traditionally been ranked as Africa's largest producer and sixth largest in the world; with proven oil and gas reserves of 37 billion barrels and 192 trillion cubic feet, respectively (IMF, 2018). The Niger Delta region where multinational oil companies (MOCs) maintain a significant presence has become a theatre of incessant violent conflicts (Uduji and Okolo-Obasi, 2017). The federal government of Nigeria (FGN) is in joint-venture agreement with the MOCs operating in the oil and gas sector in Nigeria (NDDC, 2001). The FGN owns and controls the land, including its natural resources in the subsoil, which is a major source of conflict in the Niger Delta (NDDC, 2004). By virtue of the Land Use Act 1978, land can be acquired by the government for over-riding public purposes in the country. The negative impacts of the activities of MOCs in the region include gas flaring, oil spills, environmental pollution, negative social impacts, conflicts and violence amongst others (Eweje, 2006; Ekhaton, 2014). Traditionally, the people of the Niger Delta have been farmers and fishermen. But decades of oil spillage and gas flaring, as well as a rapidly growing population, has meant these traditional sources of livelihood are either no longer viable or have experienced significant decline (Uduji and Okolo-Obasi, 2019). Consequently, the region's unemployment rates are higher than the national average (Idemudia, 2014). In addition, communities of Niger Delta have complained that MOCs often are skeptical about hiring the indigenes due to the restiveness in the region (Uduji and Okolo-Obasi, 2019). It is within this context that many families find an option in sending their children to cities and abroad to make money (Uduji *et al*, 2018b, 2019b, 2019c). MOCs invest in corporate social responsibilities (CSR) projects in communities primarily in the Niger Delta region. Over the years, MOCs have improved on how they engage with local communities to deliver these projects (Ite, 2007).

In 2006, MOCs introduced a new way of working with communities called the Global Memorandum of Understanding (GMOU). The GMOUs represent an important shift in approach,

placing emphasis on more transparent and accountable processes, regular communication with the grassroots sustainability and conflict prevention (SPDC, 2013). By the end of 2012, MOCs had signed agreements with 33 GMoU clusters, covering 349 communities, about 35% of the local communities around their business operations in the region; in 2012, a total of 723 projects worth over \$117 million were successfully completed through GMoUs (Chevron, 2014; SPDC, 2013). However, academics such as Idemudia (2014), Akpan (2006), Alfred (2013), Edoho (2008), Frynas (2009), Tuodolo (2008), Eweje (2006), Ekhaton (2014) and others have argued that the CSR process of MOCs in the Niger Delta region is not far-reaching or deeply entrenched. In contrast, Ite (2007), Lompo and Trani (2013), Uduji and Okolo-Obasi (2018c, 2018d) and Uduji *et al* (2018b) support the CSR initiatives of MOCs, arguing that the GMoU model is making some progress in the areas of local community initiatives in the Niger Delta region. Arguably, despite the adoption of GMoU model by MOCs in Nigeria, incidents of human trafficking in the oil-producing communities are among the highest in the country (PIND, 2018), and higher than the national average for Nigeria as a whole (NAPTI, 2011). Against this background and apparent gap in the literature, the positioning of this research has three main objectives which are consistent with the multinational oil companies' new CSR model (GMoUs) relative to Sustainable Development Goals (SDGs) associated with decent work and economic growth to eradicate forced labour, slavery and human trafficking:

- i. Analyse the level of multinational oil companies' CSR interventions in the fight against human trafficking in the Niger Delta, Nigeria.
- ii. Examine the impact of multinational oil companies' GMoUs in reducing incidents of human trafficking in rural communities of the Niger Delta region in Nigeria.
- iii. Determine the consequences of reducing the incidents of human trafficking in the Niger Delta, Nigeria.

1.1 Study hypothesis

In Nigeria, especially in the Niger Delta region, childcare is the responsibility of the extended family. This practice provides social balance and is meant to cushion the effects of poverty among the extended family members and stop the cycle of poverty by placing the children of the poor with wealthier relatives for proper care and upbringing. In recent years, this form of cultural

or traditional fostering has been exploited by traffickers to recruit children. Sometimes, the parents and guardians solicit the help of traffickers themselves; this often happens out of ignorance as to what the conditions would be for the children, and in the naive hope that they would be well-educated or would acquire other skills for livelihood. However, under the terms of the GMoUs, the communities should decide the livelihood skill and development they want, while MOCs provide secured funding for ensuring that the local people have stable and reliable financing as they undertake the implementation of their livelihood skills and development plans for economic empowerment, capacity building and improved lives of their people. Despite this opportunity, the business of human trafficking still thrives in the region; thus, we hypothesize that the new CSR model of multinational oil companies has not significantly reduced the incidents of human trafficking in the oil-producing communities of Nigeria.

The rest of the paper is organized as follows. Section 2 briefly considers the issues of human trafficking in Nigeria. Section 3 revisits the CSR concept from African perspective. Section 4 examines how GMoU works. Section 5 describes the method and materials. Section 6 presents the results and corresponding discussion. Section 7 concludes with implications and future research directions.

2. Background of human trafficking in Nigeria

This section aims to highlight the context, types and drivers, and impact of human trafficking in Nigeria.

2.1 The context of human trafficking in Nigeria

In Nigeria, there are internally trafficking of women and children from rural communities to cities predominantly for exploitative domestic work (ACCORD, 2017). Internationally, trafficked Nigerians come from all parts of the country but some states tend to provide more trafficked persons than others. These states include Akwa-Ibom, Cross River, Delta, Edo, Imo, Ebonyi, Kano, Ogun, Oyo and Lagos (UNESCO, 2006). The trafficker is the link between supply and demand. On the one hand, he/she increases supply through the recruitment, deception, transportation and exploitation processes. On the other hand, he/she improves demand by providing easy access to the trafficked persons. The persons are trafficked for prostitution, to

work as domestic servants, bus conductors, and street traders (ACCORD, 2017). Nigerian women and children are trafficked both internally and externally for sex. In the last decade, thousands of women and young girls have been trafficked into sex industry, especially into Europe, such that many people in Nigeria came to equate trafficking exclusively with prostitution and not with other forms of labour (Uduji and Okolo-Obasi, 2018b). Traffickers recruit girls from countryside markets, salons and other public places. Usually, such persons are instructed not to tell their parents that they are planning to travel out of the country (UNESCO, 2006).

2.2 Prevalent types of human trafficking in Nigeria

First, is the child trafficking/sale of children type; in rural areas, most children are lured from their families based on false promises made by the traffickers, such as access to education, a better life and an escape route from poverty; while some are sold or given out by their parents due to financial challenges (Hounmenou and Her, 2018). The phenomenon of the “baby factories” is also common in Nigeria; often disguised as orphanages, maternity homes, or religious centers, where young girls and women are paid to give birth to children for sale in the black market (Uduji and Okolo-Obasi, 2018b). In states like Abia, Ebonyi and Lagos, many cases have been reported to clinics, doctors, nurses and orphanages who help pregnant teenagers and other women who do not want to keep their babies after birth; they care for these women during pregnancy and provide money and shelter; upon delivery the babies are sold to couples who pay a premium for the babies of their choice; the young mothers are paid off after having signed papers repudiating their claims on the babies or swearing oaths of secrecy (UNESCO, 2006; ACCORD, 2017). Second, is the sexual exploitation type; according to Serie *et al* (2018), women and girls are most vulnerable to sexual exploitation and slavery in human trafficking. In Nigeria, many become victims while seeking gainful employment, education or improved living circumstances; some women and girls are exploited while on transit to their destination; while others are not told what awaits them upon arrival and are forced into prostitution (Oduwale *et al*, 2013). Third, is the domestic servitude type; according to McCarthy (2019), domestic servitude is a form of human trafficking where a person is made to do chores for an employer in a domestic setting and he/she is not paid or underpaid, and is often vulnerable to abuse. A typical example of this in Nigeria is the exploitation of under-aged domestic ‘house help’ in private

homes where a child is taken from rural community by a family friend or relative to a city with the false promise of enrolling the child in school; instead, the child is employed as a nanny and made to do adult household chores (Ngwe and Elechi, 2012). Fourth, is the forced labour type; according to Schwarz *et al* (2019), in the situation of forced labour, also referred to as labour trafficking, victims are forced to work against their own free will, under threat of violence or some other form of punishment. In Nigeria, mostly children are victims of forced labour, and their freedom is highly restricted; while their employer exerts a degree of ownership over them (NAPTIP, 2011). Figure 1 shows the prevalent types of human trafficking in Niger Delta.

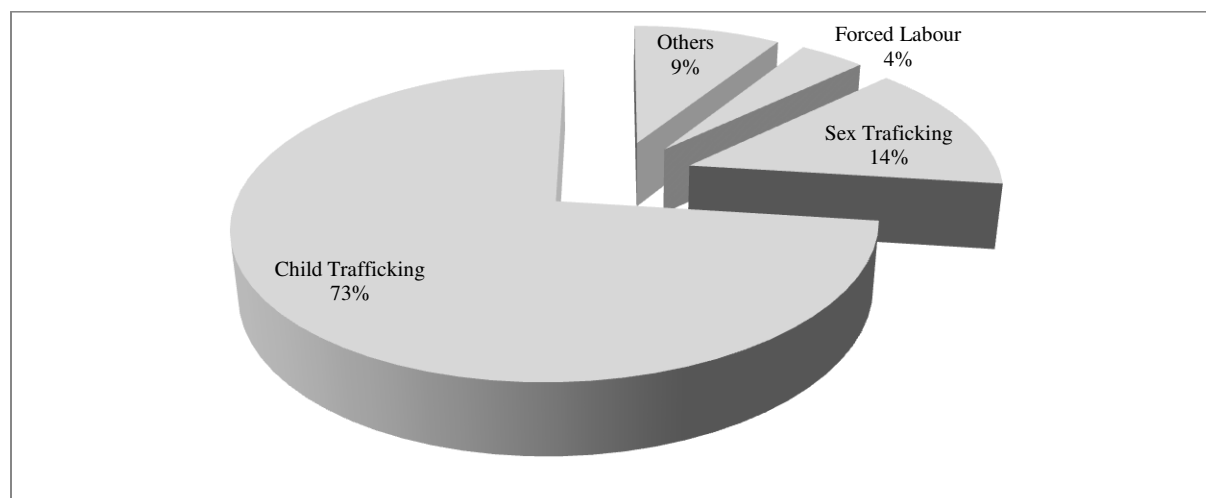


Figure 1: Niger Delta human trafficking incidents reporting by types, August 2013- August 2018
Source: PIND, 2018/Authors' modification

2.3 Drivers of human trafficking in Nigeria

First, is the high unemployment factor; according to Uduji *et al* (2018b), both educated and uneducated unemployed youths with skills are vulnerable to traffickers after years of unsuccessful job search. The National Bureau of Statistics reported in 2017 showed that unemployment rate in Nigeria increased from 14.2% in Q4 2016 to 18.8% in Q3 2017 (National Bureau of Statistics, 2017). The unemployed individuals in rural communities are promised jobs in the cities within and outside their States or overseas; but are forced to manual labour or sex work on arrival at their destinations (PIND, 2018; Uduji *et al*, 2018a). Second, is the poverty and inequality nexus; according to Uduji and Okolo-Obasi (2018a), poverty is the major reason that pressured rural farmers to entrust their children to relatives, family or strangers with hope to make money or have them trained. It is estimated that 87.7 million Nigerians, out of the 19.8 million live in extreme poverty (African Development Report, 2015). Third, is the dream of a

better life; according to PIND (2018), some of those considered “success stories” are traffickers who use their knowledge, networks and recruiting techniques to lure others into the network, either as traffickers or victims of trafficking; they travel to Libya by road (via the Sahara desert) to cross over to Europe as migrants in search of better life. Figure 2 shows the level of human trafficking reporting in Niger Delta by States.

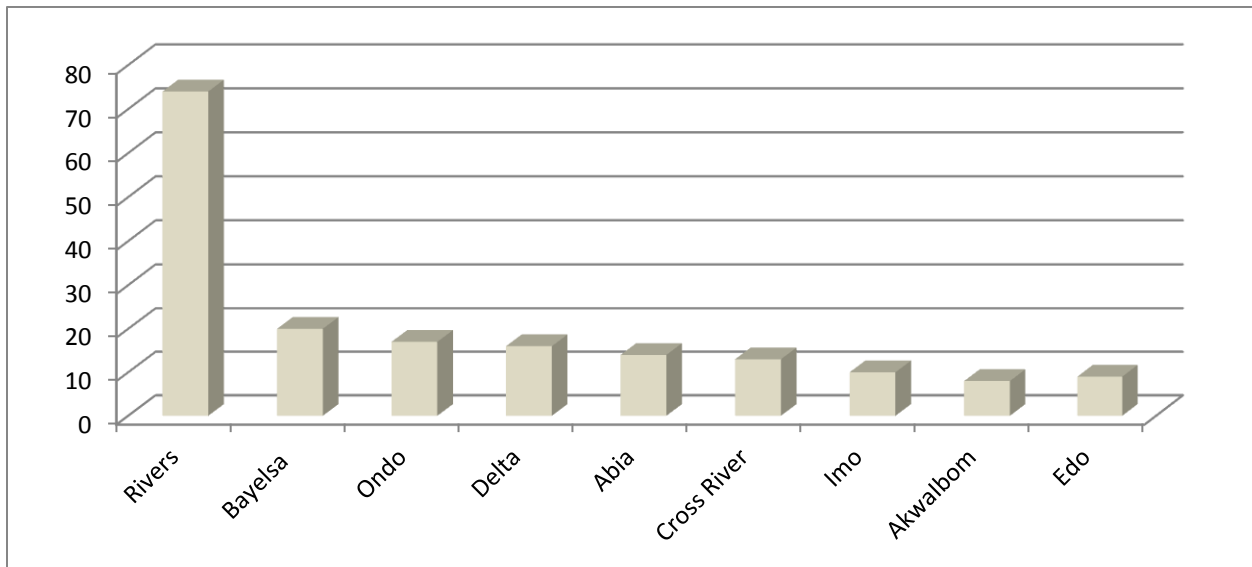


Figure 2: Levels of human trafficking reporting by States in Niger Delta, August 2013 – August 2018. **Source:** PIND, 2018/Authors’ modification.

2.4 The lasting impact of human trafficking on survivors in Nigeria

According to Powell *et al* (2018), survivors of human trafficking suffer from physical, psychological and health implications that can stay with them for the rest of their life. The emotional and physical trauma from the experiences have had lasting psychological impacts on survivors, with limited support services available and potential discrimination or stigmatization from family or community members (PIND, 2018). In most cases, families of survivors are often targeted for extortion and intimidation from traffickers, including facing death threats (NAPTIP, 2011).

The positioning of this research deviates from existing human trafficking literature which has focused on *inter alia*: cases of trafficking in persons for sexual exploitation (Baxter, 2019); research on human trafficking in Moldova (Bogdan, 2018); trafficking and health (Buzra *et al*, 2004); human trafficking and exploitation in the Scottish sex industry (Corn forth- Camden, 2018); sex trafficking and criminalization (Demsey, 2010); fighting human trafficking through

transit monitoring (Hudlow, 2015); human trafficking prevention (Jones *et al*, 2018); trends in anti-trafficking and anti-slavery campaigns (Kempadoo, 2015); collaborative accompaniment of human trafficking and inequality (Mackinnon, 2011); review of combating human trafficking (Papanicolaou and Anonopoulos, 2018); global human trafficking unmasked (Pourmokhtari, 2015); health-care provider challenges to the identification of human trafficking (Recknor *et al*, 2018); global epidemiology of HIV among female sex workers (Shannon *et al*, 2015); determinants of human trafficking in the European Union (Tallmadge and Gitter, 2018); a study of trafficking in women from Central and Eastern Europe to Netherlands (Vocks and Nijboer, 2000); prohibiting sex purchasing and ending trafficking (Waltman, 2011) and the movement to criminalize sex work in the United States (Weitzer, 2010).

3. Perspective of CSR in an African context

Visser (2006) explores the nature of CSR in an African context, using Carroll's CSR Pyramid (Carroll, 1991) as a framework for descriptive analysis. Carroll's CSR Pyramid is probably the most well-known model of CSR, with its four levels indicating the relative importance of economic, legal, ethical and philanthropic responsibilities, respectively. However, the exploration of CSR in Africa was used to challenge the accuracy and relevance of Carroll's CSR Pyramid. According to Visser (2006), if Carroll's (1991) basic four-part model is accepted, it is suggested that the relative priorities of CSR in Africa are likely to be different from the classic, American ordering. However, Visser (2006) also proposed that Carroll's (1991) CSR Pyramid may not be the best model for understanding CSR in general, and CSR in Africa in particular. Also, Amaeshi *et al* (2006) have argued that the Nigerian conception of CSR is remarkably different from the Western version; they suggested that CSR in Nigeria should be aimed towards addressing the peculiarity of the socio-economic development challenges of the country (e.g. poverty alleviation, health care provision, infrastructural development, education, etc), and should be informed by socio-cultural influences (e.g. communalism and charity); they might not necessarily reflect the popular Western stand/expectations of CSR (e.g consumer protection, fair trade, green marketing, climate change concerns, social responsible investments, etc).

According to Uduji *et al* (2019b), philanthropic initiatives as CSR by companies are prevalent in Nigeria. Thus, in Africa, the absence of government action in providing amenities for its citizens accentuates the role of multinationals in CSR; and philanthropy is not regarded as CSR in

Western countries (Frynas, 2009). Relying on the extant literature on CSR in Africa, Muthuri (2012) posited that the CSR issues prevalent in Africa include poverty reduction, community development, education and training, economic and enterprise development, health and HIV/AIDS, environment, sports, human rights, corruption and governance and accountability. Recently, Uduji *et al* (2019c) added the importance of cultural context in the determination of appropriate CSR priorities and programmes in rural Africa. They argued for the need for flexibility in approaches to CSR policy and practice by multinational oil companies operating in rural Africa. Thus, this paper adopts quantitative methodology, but discusses the outcome from the African perspective.

4. MOCs' new way of working with communities

A GMoU is a written statement between MOCs and a group (or cluster) of several communities. The GMoUs were signed between clusters of communities, MOCs and State Governments, creating a unique public-private model to promote economic and social stability. Through the GMoUs, the communities eventually assumed responsibility and accountability for how to use funding provided by the MOCs and for implementing the projects selected. MOCs stay involved by participating in local communities and boards that review and approve projects and by providing annual project funding (SPDC, 2013; Chevron, 2014). Even with a century of experience in Nigeria, MOCs anticipated that creating and implementing the GMoU would initially be challenging given the history of social unrest amid diverse ethnic groups – each with its own language –in the region (NDDC, 2001). To create the GMoU model in 2006, MOCs engaged with 95 communities of different sizes, many of which compete over land ownership, compensation from land acquisition, and community development projects (Alfred, 2013). Working with non-governmental organization (NGOs) and State and Local Governments, MOCs helped to form Regional Development Committees (RDCs) for each GMoU. The RDCs are composed of elected community members who represent local interests and oversee GMoU implementation in a specific region (Chevron, 2017). The RDCs have oversight on spending decisions and manage health, education, jobs and infrastructure projects determined through a community planning process for each RDC. Annual community funding is provided by the MOCs/NNPC joint venture based on a number of factors, including operational success (Chevron, 2014). The GMoU process established guiding principles of partnership, transparency,

accountability, sustainability assurance, peace building, and project monitoring and evaluation (SPDC, 2013). Since funding to each RDC is partially tied to MOCs operational performance, there's a mutual benefit; in effect, the GMoU communities in which there are no disruptions earn a funding bonus (Uduji *et al*, 2019a, and 2019b). For MOCs, the GMoU has improved relationships with communities, reduced ethnic conflicts, and resulted in faster implementation and lower cost of business projects compared with the pre-GMoU period (Chevron, 2017). Figure 3 shows the constituent administrative States of Niger Delta.



Figure 3: Constituent administrative states of Niger Delta, Nigeria
Source: NDDC, 2004

The GMoU model continues to evolve in 2015; MOCs launched GMoU+ to build upon the communities' focus on infrastructure projects. This expanded model strives to increase household incomes and employment and develop small business; which aligns GMoU projects and programme with the United Nations Sustainable Development Goals to improve health, education and gender equality and to promote peace and justice (Uduji and Okolo-Obasi, 2018b, 2018c, 2018d). To complement the GMoUs, MOCs supports the Niger Delta Partnership Initiative (NDPI) to work with partners to help reduce poverty and conflict in the Niger Delta

region (PIND, 2018). In 2010, MOCs had established the NDPI and its Nigeria-based implementing partner, PIND, with a \$50 million endowment to help increase income, employment and equitable economic growth in the region through public-private partnership; in 2014, MOCs had also committed an additional \$40 million to NDPI and PIND through 2019 (Chevron, 2017; PIND, 2018; Uduji *et al*, 2019b, 2019c). HIV and AIDS wreak havoc in the Niger Delta region; in 2003, 26% of all the orphans in the region were orphaned due to AIDS (Udoh, 2013). Consequently, most of these children left on their own are easily recruited by traffickers; a vicious cycle thus ensues: HIV and AIDS prevalence increases the number of persons trafficked as illustrated in the case of the AIDS orphan; simultaneously, trafficking increases the number of HIV infections in the region; thus trafficked girls and women who are more vulnerable to HIV and AIDS infection are most at risk (Uduji *et al* 2019c). Meanwhile, the MOCs in the region via CSR programmes have committed substantial resources over the years in helping to improve healthcare in local communities where they operate (SPDC, 2013). They support programmes and partnerships to address among others, diseases and epidemics such as HIV/AIDS spread (Chevron, 2014). However, despite the efforts in building long-term capacity and self-sufficiency, the Niger Delta human trafficking incidents reporting has remained among the highest in the country and higher than the national average for Nigeria as a whole (PIND, 2018; NAPTIP, 2011). In the light of the above, the three main research questions this research aims to answer are the following:

- i. What is the level of multinational oil companies' CSR interventions in the fight against human trafficking in Niger Delta, Nigeria?
- ii. Do GMoUs interventions of MOCs reduce incidents of human trafficking in rural communities of Niger Delta region in Nigeria?
- iii. What are the consequences of reducing the incidents of human trafficking in the Niger Delta, Nigeria?

5. Method and materials

The study adopts the quantitative methodology, as a contribution given the paucity of quantitative works in the region (Uduji *et al*, 2019b, 2019c).

5.1 Study area

The survey research technique was used with the aim of gathering cross-sectional information from a representative sample of the population. The survey is essentially cross-sectional in that it describes and interprets what exists at present in the region.

5.2 Sampling procedure

In this process, we used multi-staged sampling method to select the final households for the study. Out of the nine states of the region (Figure 3), two local government areas (LGAs) were purposively selected from each state. The purpose of this selection was justified by the submission of PIND (2018) and NAPTIP (2011) on the high rate of human trafficking in these LGAs. Out of the selected LGAs, we also applied purposive sampling to select three rural communities on the basis that the communities are more rural than others. Finally, from the fifty four rural communities selected, with the help of community gate keepers, we used snowball sampling to select 400 households, which have benefited (by way of direct empowerment) from the CSR of the MOCs and another 800 households, which are yet to benefit from the CSR of the MOCs. The distribution of the sample was done in the selected rural communities based on the population of the state in which the community is located (Table 1).

Table 1. Sample size determination table

States	Population	Population of Female	% of Total Population	Minimum Sample Per Community (treatment)	Minimum Sample Per State (control)	Minimum Sample Per State
Abia	2,881,380	1,451,082	9%	6	13	120
Akwa Ibom	3,902,051	1,918,849	12%	8	16	144
Cross River	2,892,988	1,421,021	9%	6	12	108
Delta	4,112,445	2,043,136	13%	9	18	156
Imo	3,927,563	1,951,092	13%	9	17	156
Ondo	3,460,877	1,715,820	11%	7	15	132
Edo	3,233,366	1,599,420	10%	6	13	120
Bayelsa	1,704,515	830,432	5%	4	8	72
Rivers	5,198,716	2,525,690	16%	11	22	192
Total	31,313,901	15,456,542	100			1200

Source: NPC, 2007/Authors' computation

5.3 Data collection

To distinguish between the rural people who have benefited from the CSR of MOCs, (treatment group) and those who are yet to receive (the control group), the households were asked if they have received support directly from the MOCs in the area of CSR to improve their livelihoods. A structure questionnaire was administered to the selected households in a form that represents an appropriate tool to evaluate qualitative issues by quantitative information. Based on this questionnaire, scores were allocated according to the objectives. The questionnaire was directly administered by the researchers with the help of research assistants. The local research assistants were used for three major reasons. First, the study area is multi-lingual, having over 50 ethnic groups that speak different local languages and dialects. Second, the terrain is very rough, as there is a high level of violence in some areas, which would require a local guide. Third, some items in the instrument would require further explanation that could be best done in local dialects.

5.4 Analytical framework

The study analyzed the role of the CSR of the multinational oil companies in the fight against human trafficking in the Niger delta. To achieve the study's objectives and test the hypothesis, both descriptive and inferential statistics were used. The results of the descriptive statistics are presented in tables, charts and graphs. We made use of a combined propensity score matching (PSM) and logit model to estimate the impact of the MOC's corporate social responsibilities using the GMoU on fighting human trafficking in the study area. These methods were chosen on the basis that, the study needs to control for the problems of selectivity and endogeneity. In Propensity Score Matching (PMS), we considered first, the households that have received direct CSR of the MOCs a "treatment"; so as to estimate an average treatment effect of CSR using propensity score matching approach. Propensity score matching involves predicting the probability of treatment on the basis of observed covariates for both the treatment and the control group (Odozi *et al*,2010). It summarizes the pre-treatment characteristics of each subject into a single index variable and is then used to match similar individuals. According to Ravallion (2001), in propensity score matching, an ideal comparison group is picked from a larger survey and then matched to the treatment group based on set of observed characteristics on the predicted probability of treatment given observed characteristics (propensity score). This said, observed

characteristics are those used in selecting individuals but not affected by the treatment, hence, our choice in adopting this methodology. We assume that the decision to be treated (that is, receiving CSR intervention), although not random, in the end depends on the variables observed. Rosenbaum and Rubin (1983) have argued that the ability to match on variable X means that one can match on probability of X . Hence, in estimating the impact of CSR on fighting human trafficking; two groups are identified. In these two groups, those with CSR (treatment group) is denoted as $R_i = 1$ for rural Household _{i} , and $R_i = 0$ otherwise (control group). The treatment group are now matched to the control group on the basis of the propensity score: (Probability of receiving CSR given observed characteristics).

Hence:

$$P(X_1) = \text{Prob}(R_2 = 1/X_2) \quad (0 < P(X_2) < 1) , \quad \text{Equation 1}$$

where, X_1 is a vector of pre CSR control variables, if R_1 is independent over all 1 and the outcomes are independent of CSR given X_1 , then outcomes are also independent of CSR given $P(X_1)$, just as they will do if CSR is received randomly. To draw precise conclusions about the impact of CSR activities on fighting human trafficking, we saw the necessity to sidestep the selection bias on observables by matching on the probability of the treatment (covariates X) to this; we defined the PS of vector X thus:

$$P(X) = \text{Pr}(Z = 1/X), \quad \text{Equation 2}$$

The Z represents the treatment indicator equating 1, if the selected rural household has received CSR, and zero otherwise. Because the PS is a balancing score, the observables X will be distributed same for both “treatment” and “control” and the differences are seen as to the attribute of treatment. To get this unbiased impact estimates, we adapted the four steps in line with Rosenbaum and Rubin (1983), and Liebenehm, Affognon and Waibel (2011). In the first place, we recognized that the probability of receiving CSR is predicted by a binary response model, with appropriate observable characteristics. Hence, we pooled two individual group, (those who received CSR (treatment) and those who do not (Control)). After these, we estimated the logit model of CSR receiving or not receiving as a function of some socio-economic

characteristics variables. These variables include both individual, household and community variables represented in this equation as thus:

$$P(x) = \Pr(Z= 1/X) = F(\alpha_1x_1+\dots+\alpha_nx_n) = F(x\alpha) = e^{x\alpha} \quad \text{Equation 3}$$

We created value of the probability of receiving CSR from the logit regression assigning each rural household a propensity score. The control groups with very low PS outside the range found for receiver were dropped at this point. For each household receiving CSR, a household not receiving CSR that has the closest PS as measured by absolute difference in score referred to as nearest neighbour was obtained. We used the nearest five neighbours to make the estimate more rigorous. The mean values of the outcome of indicators for the nearest five neighbours were calculated and the difference between the mean and actual value for CSR receiving (treatment) is the estimate of the gain due CSR. This difference between treatment and control groups is estimated by the average treatment effect on the treated (ATT). The true ATT, based on PSM is written thus:

$$ATT_{PSM} = E_{p(x)} \{E(y_1/Z = 1, P(x)) - E(y_0/Z = 0, P(X))\}, \quad \text{Equation 4}$$

EP(X) stands for expectation with respect to the distribution of PS in the population. The true ATT indicates the mean difference in fighting human trafficking. In this, we achieve an adequate match of a participant with her counterfactual in as much as their observable characteristics are identical.

6. Results and discussion

6.1 Descriptive analysis

The analysis of the household in the study begins with a description of some of their social (education), demographic (age, marital status, household size) and economic (occupation, household income) characteristic (Table 2). These characteristics are important in understanding the differences in the socio-economic status of the households who are receiving direct CSR through the GMoUs compared with their non-receiving counterparts in the Niger Delta region. The analysis shows that about 74.5% of the treatment group are males, while 25.5% are females. Also about 52.75% of the control group are males, while 47.25% are females. This is an

indication that male headed household are more likely to be empowered through the CSR by the MOCs than female headed households. About 14.5% of the treatment groups are under-paid employment, while the control has only 1.2%. The bulk of the respondents both treatment and control groups are involved in farming, which is consistent with Uduji *et al* (2019c) in that any CSR intervention targeted at empowering the farmers will yield positive result. The average age of the respondent in the treatment group is 31 years, while that of the control is 36 years. The analysis is also in accordance with Uduji *et al* (2019b) in that respondents in the control group are more educated than the respondents in the control group. In the treatment group, only 6.7% are not educated at all, while the control group have 12.12% uneducated respondents. The analysis also concurs with Uduji and Okolo-Obasi (2017) in that the treatment group earn more than the control group as 50.5% of the treatment group earn more than 200,000 (550 USD), while only 18.8% of the control group that earn such amount.

Table 2. Socio-economic characteristics of the respondents

Variables	Treatment Group			Control Group		
	Freq	%	Cum	Freq	%	Cum
Sex of Household Head						
Male	298	74.5	74.5	422	52.75	52.75
Females	102	25.5	100	378	47.25	100
	400	100		800	100	
Primary Occupation						
Fishing	65	16.25	16.25	168	21	21
Trading	74	18.5	34.75	126	15.75	36.75
Farming	122	30.5	65.25	361	45.125	81.875
Paid Employment	58	14.5	79.75	42	5.25	87.125
Handicraft	43	10.75	90.5	62	7.75	94.875
Others	38	9.5	100	41	5.125	100
	400	100		800	100	
Age of Respondents						
Less than 20 years	10	2.5	2.5	24	3	3
21-25 years	86	21.5	24	111	13.875	16.875
26-30 years	109	27.25	51.25	223	27.875	44.75
31 - 35 years	59	14.75	66	141	17.625	62.375
35 - 40 years	46	11.5	77.5	102	12.75	75.125
41 - 45 years	40	10	87.5	87	10.875	86
45 - 50 years	32	8	95.5	67	8.375	94.375

Above 50 years	18	4.5	100	45	5.625	100
	400	100		800	100	
Level of Education						
None	27	6.75	6.75	97	12.125	12.125
FSLC	173	43.25	50	243	30.375	42.5
WAEC/WASSCE	122	30.5	80.5	382	47.75	90.25
Degree and above	78	19.5	100	78	9.75	100
	400	100		800	100	
Marital Status						
Single	92	23	23	210	26.25	26.25
Married	228	57	80	520	65	91.25
Widow	33	8.25	88.25	23	2.875	94.125
Divorced/Separated	47	11.75	100	47	5.875	100
	400	100		800	100	
Household Size						
1-4 Person	178	44.5	44.5	372	46.5	46.5
5-9 Person	138	34.5	79	334	41.75	88.25
10-14 Person	72	18	97	72	9	97.25
15 Person and above	12	3	100	22	2.75	100
	400	100		800	100	
Annual Income						
1000 - 50,000	11	2.75	2.75	192	24	24
51,000 - 100,000	35	8.75	11.5	205	25.625	49.625
101,000 - 150,000	75	18.75	30.25	155	19.375	69
151,000 - 200,000	77	19.25	49.5	97	12.125	81.125
201,000 - 250,000	93	23.25	72.75	73	9.125	90.25
251,000 - 300,000	76	19	91.75	56	7	97.25
Above 300,000	33	8.25	100	22	2.75	100
	400	100		800	100	
Value of receipts Through CG						
1000 - 50,000	14	3.5	3.5			
51,000 - 100,000	38	9.5	13			
101,000 - 150,000	66	16.5	29.5			
151,000 - 200,000	75	18.75	48.25			
201,000 - 250,000	80	20	68.25			
251,000 - 300,000	96	24	92.25			
Above 300,000	31	7.75	100			
	400	100	200			

Source: Authors' compilation based on household survey.

However, irrespective of receiving or not receiving the direct CSR by households, the average annual income of both the treatment group and the control groups are still low. The treatment group has an average income of NGN195, 000 000 (537 USD) per annum while for the control group, the average income is NGN75, 000 (206 USD) per annum. This finding supports Okeshola and Adenugba (2018) in that the dwindling Nigeria economy has increased the poverty rate of its citizens and this has made the people of the Niger Delta more vulnerable to human trafficking. Also, Idemudia (2014) in harmony argued that the destruction of farmlands and rivers from crude oil pollution in some communities' exacerbated poverty, especially as farming and fishing are the major sources of livelihood for rural communities in the Niger Delta region.

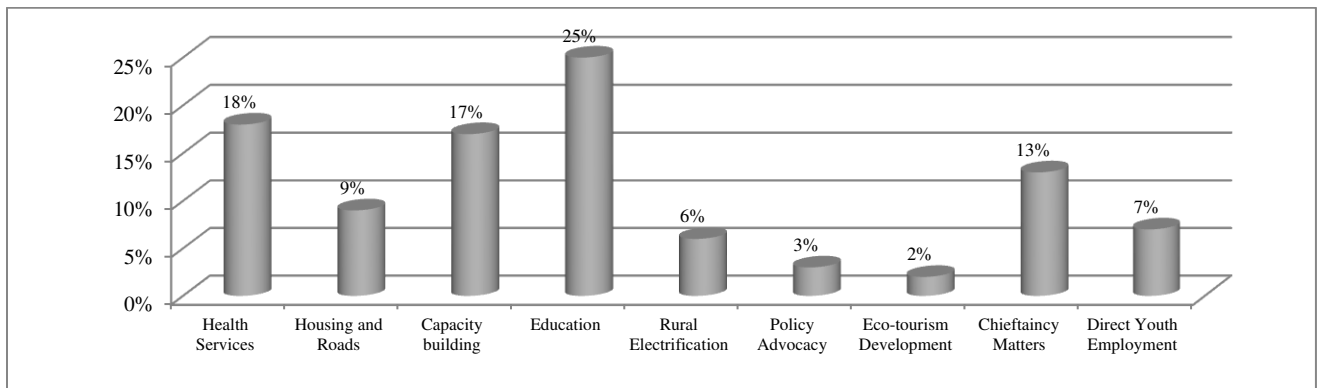


Figure 4. Percentage distribution of CSR intervention of MOCs by sectors in the Niger Delta.

Source: Authors' compilation based on household survey

Analysis (Figure 4) showed that health services accounted for 18% of the CSRs of the MOCs while education, which include - provision of infrastructure, library and laboratory equipment, scholarship and teachers training, accounts for 25%. On the other hand, capacity building accounts for 17%; chieftaincy matter accounts for 13%; while policy advocacy is 3%. Analysis (Figure 5) showed that out of the CSR that entails direct individual or household receipt, 21% of the treatment households have received at least a type of scholarship as a CSR of the MOCs; direct employment accounts for 18% of the group, while skill acquisition accounts for 25%. Others are entrepreneurship loan and grant which is 12%; provision of shelter 5% and subsidy of agriculture and fishing input 19%.

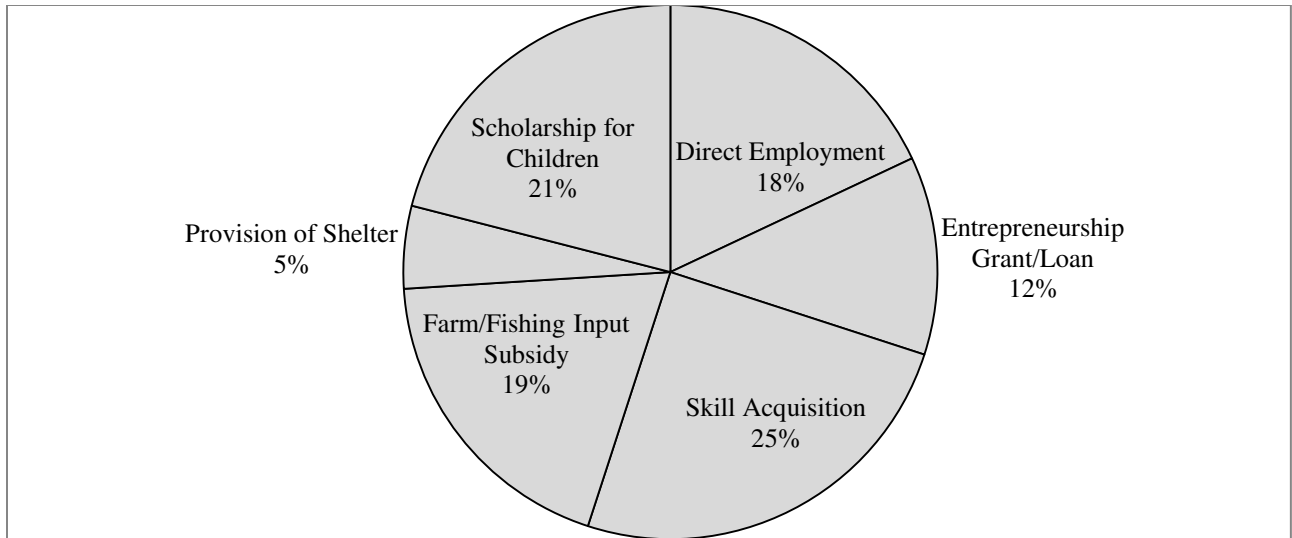


Figure 5. Percentage distribution of CGs intervention of MOCs by sectors in the Niger Delta.

Source: Authors' compilation based on household survey

Ogunniran (2009) agreed in that many children are willingly released by the parent after a promise of better future that will enable their children go to school, have a good shelter, get a good job or acquire a better skill. Hence these are main areas that if the CSR are channelled to, will reduce the incidence of trafficking in human beings in the zone. However, majority of the population represented by the control group are yet to receive CSR in this dimension. Ngwe and Elechi (2012) highlighted that the perception of an improved life abroad by the rural young people is exacerbated when stories are circulated about those who were trafficked but eventually succeed in paying off their debts and returned home to purchase properties, establish business, and support family members. However, these dream narratives are few and far in between, but they have exponential power to tantalize future victims.

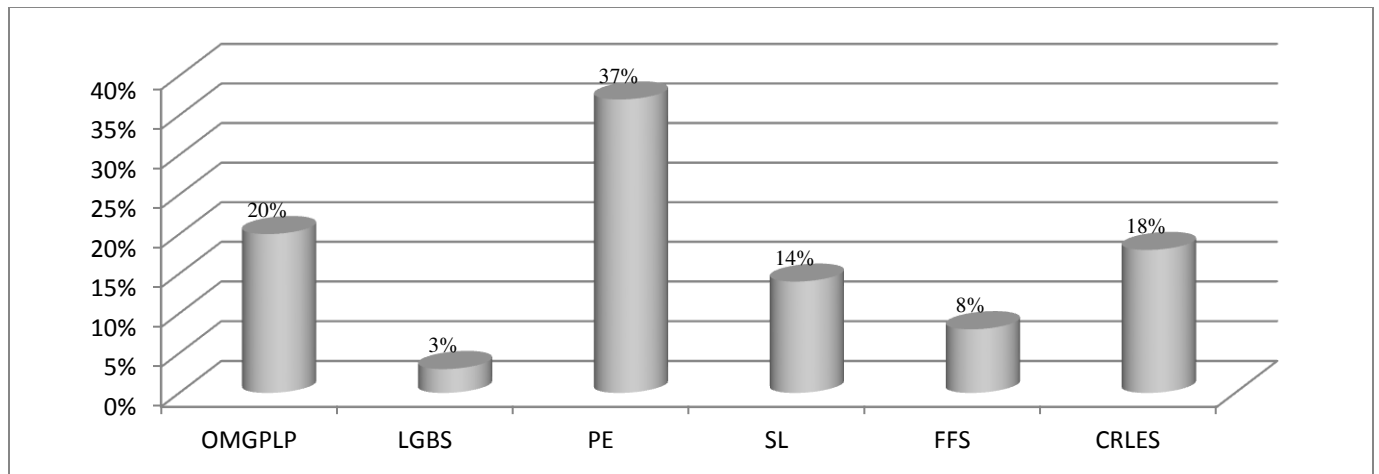


Figure 6.Percentage distribution of CSR intervention in capacity building by the MOCs in the rural communities of Niger Delta

Source: Authors' compilation based on household survey

Analysis (Figure 6) showed that many of the respondents believe that most of the CSR investments of the MOCs are done for the direct and/or remote benefits of the MOCs. Out of the total capacity building programmes the MOCs undertake via GMOU, 37% is in the area of peaceful engagement training; while 20% is in the area of operation and maintenance of gas lines and power plants; support for fishery and farming entrepreneurship development receives only 8%. Also, construction of rural roads leading to the exploration site accounts for 18%; while street lighting of such roads accounts for 14% and only 3% went to grant and soft loan for business support. Again, most of the beneficiaries of the interventions are urban based, undermining the bulk in the rural communities. PIND (2018) agreed in that incidents of human trafficking in the rural Niger Delta is high and have physical, economic and physical implications for victims and their families, as well as have deeper impact on society of the region. NAPTIP (2011) supported that some victims trafficked overseas are forced to take oaths in their village shrines; and these oaths are further used to induce fear and discourage victims from any attempt to reverse or escape back to their local communities. Ekaette, Akpan, Okon, Imaobong, Ese, Ubong, Osaz, etc are very common names in the Niger Delta region. These names use to be synonymous to houseboy, house girl, bar tenders, gate man etc. all over Nigeria.

²OMGPLP = Operation and Maintenance of Gas Power Line and Plant -LGBS = Loan/Grant for Business Support - PE = Peaceful Engagement - SL = Street Light and Lighting - FFS = Fishery and Farm Support - CRLES= Construction of Road Leading to Exploration Sites

This is an indication the level of human trafficking, child labour and the like in the region.

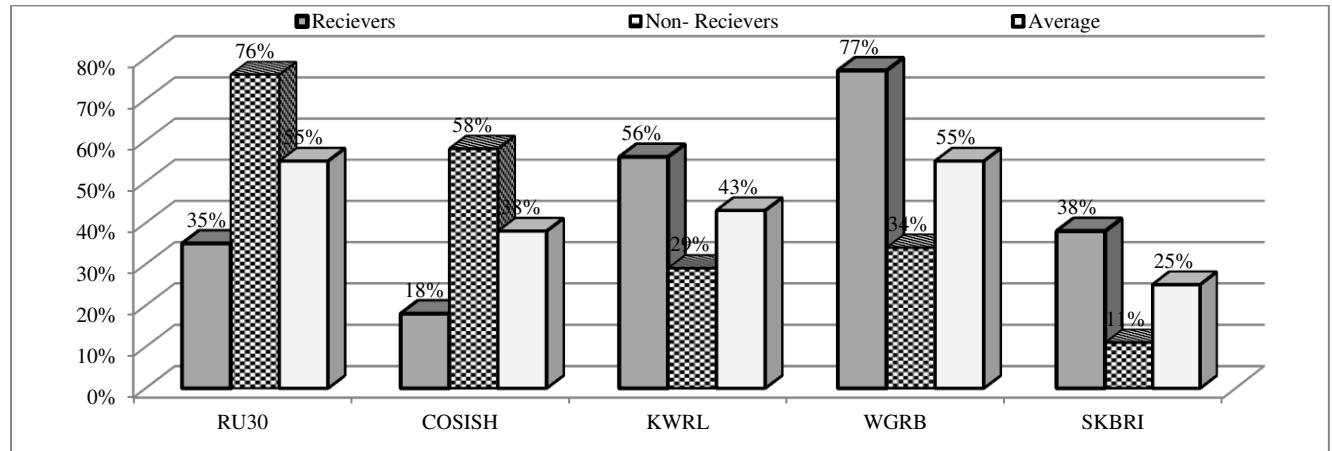


Figure7. Level of human trafficking in the Niger Delta Region

Source: Authors' compilation based on household survey

Analysis (Figure 7) showed that 35% of the treatment group has relatives living with other people, while for the control group, it is 76%. This gives an average of 55% implying that 55% of the study area has children and relative living with others within and outside the oil-producing communities. Also shown in the analysis is that, while 56% of the receivers know where their children and relative are staying; only 29% are sure of this; implying that about 57% of those whose children and relative are outside their homes do not know where they are. The analysis equally showed that only 25% (on average) of the respondent are sure of the activities their children or relatives are involved in; among the treatment group, only 18% of the respondents have children under 18 who are out of school and are engaged in street hawking; while the 58% of the control group are in the same category; about 77% of the respondents in the treatment group who have relative outside are willing and eager to bring them back owing to the fact that the conditions they sent them out have been bettered, while about 66 percent of the control group are not willing at as they argue that their conditions are even getting worse. This is an indication that a well-targeted CSR will go a long way in lifting households out of the conditions that has forced many to give out their children and ward in order to make ends meet. Ogunniran (2017)

³RU30= Children and Relatives Under 30 Years Living with Other People - COSISH= Children out of School and in Street Hawking- KWRL = Knowledge of where Relatives are Living- WGRB = Willingness to get Relatives Back- SKBRI = Sure of the Kind of Activities Relatives are Involved in

agreed in that most of the trafficked do not receive basic benefits, and in some cases, lack freedom of movement; for women and girls, they also face sexual abuse, in addition to other forms of abuse and harassment.

4.2 Econometric analysis

Analysis (Table 3) summarized the average differences in the basic scores and independent observable characteristics between recipients and non-recipients. Generally, the difference in means shows that the score on children and relatives living outside the household, score on children below 18 out of school, and score on children involved in street hawking are reasonably low for the direct recipients of CSR, but relatively high for the control group. The differences are from -25.25% in the category of children and relatives living outside the household, to 4.23% in the category of economic capability of household heads. When the selected observable characteristics were examined, it shows that there are significant positive differences in Age (3.06), Education (13.22), Marital Status (2.36), Primary Occupation (5.45), Annual Income (17.65), Access to Shelter (6.5), Access to portable water (1.2), Access to medical care (2.55) and Freedom of participation in socio-economic activities (0.88). The analysis also showed that household Size (-6.22), Income of other household members (-2.89), Access to land (-0.07), all recorded a negative significant mean. The implication of this finding is that as the treatment group has shown reduction in almost all the indices measured, there is every possibility that CSR investment directly channelled to the initiative can serve as a catalyst to reducing incidents of human trafficking in oil-producing communities of Niger Delta. Hence, observable participation incentives can be identified, which underlines the possibility that selective placement exists and therefore the need to apply propensity score matching. This finding supports PIND (2018) in that in the Niger Delta, human trafficking is a hidden crime, driven by the current economic situation of Nigeria; and that all forms of human trafficking have physical, health and psychological implications for victims, survivors and their families. Baxter (2019) also concurs with the findings in Australia that human trafficking drives insecurity, killing, abduction, robbery and illicit economic activities.

Table 3. Comparison of mean score and observable characteristics across participants and non-participants (N = 1200)

Score in Percentage of maximum score	Recipients	Non Recipients	Difference
Score on Children and relatives living outside the household	19.32	44.57	-25.25**
Score on Children below 18 out of school	26.28	51.32	-25.04**
Score on Children involved in street hawking	24.13	44.82	-20.69**
Score on Economic capability of household heads	31.48	27.25	4.23**
Socio-Economic Characteristics			
Age	21.41	18.35	3.06
Sex	32.25	30.65	1.6
Education	41.38	28.16	13.22
Marital Status	32.19	29.83	2.36**
Household Size	12.51	18.73	-6.22
Primary Occupation	21.26	15.81	5.45*
Annual Income	51.26	33.61	17.65
Income of Other Household Members	11.62	14.51	-2.89
Household Characteristics			
Access to Shelter	18.31	11.81	6.5**
Access to portable water	21.72	20.52	1.2**
Access to medical care	19.16	16.61	2.55*
Freedom of participation in socio-economic activities	24.74	23.86	0.88**
Access to land	16.21	16.28	-0.07
Observation	400	800	

Source: Authors' compilation based on household survey

We followed the selected characteristics which capture relevant observable differences of both the treatment and control to predict the probability of receiving CSR. Analysis (Table 4) showed the Logit model as built in equation 3. This finding shows that the estimated coefficients, the odd ratio are expressed in terms of odds of Z=1, the marginal effect and standard error. When we examined single observables, the evidence is that sex of the household head, primary occupation, highest educational level, perception of the GMoU and financial inducement by traffickers are factors that positively influence the household head seeking and receiving direct CSR in the GMoU programmes. On the other side, Age of the household head, remittances from trafficked household members, annual income of the household head and income of other household member affect it negatively. Okeshola and Adenugba (2018) along this finding suggested that

the Nigerian government has demonstrated significant efforts to combating human trafficking in the country by creating the National Agency for the Prohibition of Trafficking in Persons (NAPTIP); but NAPTIP has not done enough in preventing trafficking of persons, rescuing the trafficked victims, prosecuting perpetrators and offering rehabilitation for victims and survivors. Our findings also suggest that NAPTIP should work with MOCs, NGOs and CSOs in the anti-human trafficking space to achieve this.

Table 4. Logit model to predict the probability of receiving CSR conditional on selected observables

Variables	Coefficient	Odd Ratio	Marginal Effect	Std. Error
Age	-.035	.7153	.011	.013
Sex	.021	.351	.031*	.031
PriOcc	.451	.821	.210*	.221
Edu	.127	.573	.072**	.048
AY	-.041	.901	.0048	.024
Relrem	-.001	.238	.001	.0021
MS	.043	1.703	.0003	.103
HHcom	-.251	.342	.0012	.034
TrFind	.931	1.251	.0122**	.019
Perception of GMoU	2.341	6.238	.102*	.045
Constant	9.236	3.321	.00346	.676
Observation	1200			
Likelihood Ratio - LR test ($\rho=0$)		$\chi^2 (1) = 1368.231^*$		\
Pseudo R ²	0.31			

*= significant at 1% level; ** = significant at 5% level; and *** = significant at 10% level

Source: Authors' compilation based on household survey.

In line with the probability of receiving CSR predicted in the model, we estimated the impact of the CSR on reducing human trafficking in the Niger Delta region by the ATT, as outlined in equation 4. The observations we carefully certified are ordered randomly and there are no large disparities in the distribution of propensity scores. Hence we noted that the NNM (nearest neighbour matching) yields the highest and most significant treatment effect estimate in all the four outcome categories, notably: children and relatives living outside the household, children below 18 out of school, children involved in street hawking and economic capability of household heads.

Table 5. Estimated impacts of CSR activities using the MOCs' GMoU (CG) on women via different matching algorithms

	Access and Knowledge Score in Percentage of Maximum Score		Average Treatment effect on the treated
	Receivers	Non- Receivers	
Nearest neighbour matching	Using single nearest or closest neighbour		
Score on Children and relatives living outside the household	19.32	44.57	-25.25**
Score on Children below 18 out of school	26.28	51.32	-25.04**
Score on Children involved in street hawking	24.13	44.82	-20.69**
Score on Economic capability of household heads	31.48	27.25	4.23**
Observations	186	186	
Radius matching	Using all neighbours within a caliper of 0.01		
Score on Children and relatives living outside the household	21.27	42.41	-21.14**
Score on Children below 18 out of school	20.18	43.34	-23.16**
Score on Children involved in street hawking	28.52	46.32	-17.8**
Score on Economic capability of household heads	21.31	19.23	2.08**
Observations	171	271	
Kernel-based matching	Using a bi-weight kernel function and a smoothing parameter of 0.06		
Score on Children and relatives living outside the household	19.41	27.32	-7.91**
Score on Children below 18 out of school	29.62	48.78	-19.16**
Score on Children involved in street hawking	24.32	43.24	-18.92**
Score on Economic capability of household heads	17.34	15.12	2.22**

*= significant at 1% level; ** = significant at 5% level; and * * * = significant at 10% level

Source: Authors' compilation based on household survey.

The nearest neighbour estimate (Table 5) of the access to modern fishing equipment due to receiving CG is approximately -25%; however, thinking that the NNM method yields relatively poor matches as a result of the limitation of information, we moved on to the other two matching methods (Radius and Kernel-based matching). The estimated impact using radius matching

algorithm is about -21%; while Kernel-based matching algorithm produces average treatment effect on the treated of -8%. Consequently, it can be confirmed that CSR generate significant gains in household fight against human trafficking, and if encouraged and improved upon will lift many out of poverty line which is at the root of many willing and unwilling trafficking. In line with this observations, the findings of Bogdan (2018) from Moldova suggested that the biggest obstacle to stopping human trafficking is the lack of information. This is in agreement with our findings; a direct outcome of the low reporting of incidents related to human trafficking in the Niger Delta region.

Table 6. Imbalance test results of observable covariates for three different matching algorithms via standardized difference in percent

Covariates <i>X</i>	Standardized differences in % after		
	Nearest neighbour matching	Radius matching	Kernel-based matching
Age	4.3	18.5	13.4
Sex	3.8	16.8	23.8
PriOcc	9.5	25.8	17.1
Edu	3.8	13.7	12.8
AY	2.3	15.9	11.1
Relrem	4.2	11.9	12.4
MS	3.8	31.6	10.8
HHcom	4.2	21.6	12.1
TrFind	2.9	35.2	11.2
Perception of GMoU	4.8	62.8	14.5
Constant	6.1	45.8	26.5
Mean absolute standardized difference	4.52	27.24	15.06
Median absolute standardized difference	3.8	31.6	10.8

Source: Authors' compilation based on household survey

We checked the imbalance of single observable characteristics and it shows that the quality of the simple method of choosing the only closest neighbour with respect to the propensity score NNM is much higher than that the KM and RM in matching. The summary statistics (Table 6) for the overall balance of all covariates between treatment group and control confirms the higher quality of NNM. For the kernel-based matching and radius; both the mean and the median of the

absolute standardized difference after matching are far above the threshold of 5% while the NNM is reasonably below. As suggested by Hudlow (2015) from Nepal experience, working together to combat human trafficking by fostering effective partnership across different sector is a key. Therefore, stakeholders in the Niger Delta-ranging from multinational oil companies, governments, civil society organizations and individual families could be critical actors in the fight against human trafficking to effect a change

On the whole, as most victims of human trafficking in the Niger Delta are exploited by people within the cycle of trust, such as relatives or friends; governments, MOCs, NGOs and CSOs should increase awareness campaigns in schools, churches, village meetings and transit centres on the risks of trafficking. In addition to highlighting the dangers of trafficking, these campaigns should educate the rural communities on how to identify human trafficking risks. Advocacy efforts should aim to involving traditional and religious leaders in the fight against human trafficking as this is often linked to customary practices and beliefs. MOCs should set up GMoU clusters interventions specifically for anti-trafficking agencies including NAPTIP, the police and immigration to support their actions and improve efficiency in the fight; also develop facilities and social services for reintegration of the trafficked persons to prevent as much as possible the re-trafficking of the trafficked persons. However, if MOCs are to work towards an ideal CSR initiative for oil-producing communities in Nigeria, we would argue that the fight against human trafficking should be assigned the highest CSR priority. It is our contention that multinational oil companies in Nigeria hold the key to combating human trafficking by fostering effective partnership across different stakeholders in the Niger Delta - ranging from government, civil society organizations, traditional rulers, community members and the individual families. Hence, embracing the fight against human trafficking should form the foundation of CSR practises in sub-Saharan Africa, which in turn will provide the enabling environment for more widespread responsible business in the continent. This finding remains speculative and provocative and would therefore benefit from further empirical research. However, if confirmed, this raises important issues regarding the cross-continental CSR debate, including the importance of cultural context in the determination of appropriate CSR priorities and programmes; and the need for flexibility in approaches to CSR policy and practice by multinational oil companies in Africa and globally.

7. Concluding remarks, caveats, and future research direction

In Nigeria, human trafficking is a hidden crime, driven by the current economic situation of the country. The Nigerian government has demonstrated significant efforts to combating human trafficking in the country by creating the National Agency for the Prohibition of Trafficking in Persons (NAPTIP). The incidents of human trafficking in the Nigeria's oil-producing communities have remained among the highest in the country and higher than the national average. The objective of this investigation was to determine the impact of a new corporate social responsibility (CSR) model of multinational oil companies (MOCs) on the fight against human trafficking in the host communities. This paper contributes to the public-private partnership debate in the fight against human trafficking from the CSR perspective of multinational oil companies. The positioning of this research has three main objectives which are consistent with the multinational oil companies' new CSR model (GMoUS) relative to decent work and economic growth to eradicate forced labour, slavery and human trafficking:

- i. Analyse the level of multinational oil companies' CSR interventions in the fight against human trafficking in the Niger Delta of Nigeria.
- ii. Examine the impact of multinational oil companies' GMoUs in reducing incidents of human trafficking in rural communities of the Niger Delta region in Nigeria.
- iii. Determine the consequences of reducing the incidents of human trafficking in the Niger Delta of Nigeria.

One thousand, two hundred respondent households were sampled across the rural communities of the Niger Delta region. Results from the use of a combined propensity score matching and logit model showed that MOCs hold the key to combating human trafficking by fostering effective partnership across different sectors, if highest CSR priority is assigned to reducing incidents of human trafficking in the oil-producing communities in Nigeria. As most of human trafficking in the Niger Delta are exploited by people within their circle of trust, such as relatives or friends; MOCs, NGOs, CSOs, community rulers, village heads, individual families and the government should increase awareness campaigns in schools, churches, market squares, village meetings and transit centres on the risks of trafficking. In addition to highlighting the dangers of trafficking, these campaigns should educate the rural communities on how to identify human trafficking risks. Advocacy efforts should aim at involving traditional and religion leaders in the

fight against human trafficking as this is often linked to customary practices and beliefs. MOCs should set up GMoU clusters interventions specifically for anti-trafficking agencies including NAPTIP, the police and immigration to support their actions and improve efficiency. This measure would enable NAPTIP to ensure speedy prosecution of traffic cases. MOCs should also develop facilities and social services for reception, protection and integration of trafficked persons to deter as much as possible the re-trafficking of the trafficked persons. Hence, embracing the fight against human trafficking should form the foundation of CSR practice in oil-producing communities, which in turn will provide the enabling environment for more widespread responsible business in sub-Saharan Africa.

The main caveat of this study is that, it is limited to the scope of oil-producing communities in Nigeria. Hence the findings cannot be generalized to other developing countries with the same human trafficking and policy challenges. In the light of this shortcoming, replicating the analysis in oil-producing communities of other countries is worthwhile in order to examine whether the established nexuses withstand empirical scrutiny in different oil-producing context of developing countries. Also, as research into CSR in Africa is still relatively underdeveloped, there is need for further research on CSR in African countries at the international, regional, national and sectoral levels, as well as on theoretical constructs. All these different streams of empirical research should form more conceptual work on CSR conceptions, frameworks, or models that are more applicable to African countries.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix

Variables	Definitions
Age	Age of the respondent rural young woman measure in number of years with a range.
PriOcc	Primary occupation the respondent rural young woman determining the women who are full time or part time fisher and those who live in the coastal communities but are not involved in any form of fishing.
Edu	Highest level of education obtained by the respondent rural young woman measured in number of years spent in school
AY	Annual income of the respondent rural young woman measured as total income less off fishery income. (income earned purely from fishery and fishery value chain)
Relrem	Dummy for receiving of financial and material remittances received from relative who survived trafficking and begins to send money home. (Yes = 1 and No =0)
MS	Dummy for Marital status of the respondent rural young woman. (married =1 not married =0)
HHcom	Income of other members of the household of the respondent rural young woman measured as total income of the household less income from fishing
TrFind	Financial inducement offered to parents and guardians of the trafficked victims. This is measure in Nigerian Naira and added as a covariate.
Perception of GMoU	This is a dummy for how the people see the GMoU and the CSR of the MOCs. (those who perceive it as ours or for us = 1 and those who perceive it as theirs and for them =0)
CSR	Corporate social responsibility interventions of the multinational oil companies using the global memorandum of understanding as received or participated in by the rural women.