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**The Impact of CSR Interventions on
Female Education Development in the
Rural Niger Delta Region of Nigeria**

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Abstract

The objective of this investigation was to assess the impact of multinational oil companies' (MOCs) corporate social responsibility (CSR) interventions in female education programmes in the Niger Delta region of Nigeria. A total of 800 rural women were sampled across the region. The results from the logit model showed that rural women depended on CSR interventions of MOCs to address some of the logistical and cultural challenges associated with women's access to post-secondary education in local communities. However, despite the significant success in supporting education initiatives generally, none of the scholarships target females specifically, and compared to men, the low level of human capital in rural women has persisted. This implies that if CSR interventions are not tailored to enhance gender diversity and promote economic opportunities for women alongside education, they may perpetuate the obstruction of women's participation in economic, political and social development. By extension, this could delay the reduction of poverty and attainment of Sustainable Development Goals in the Niger Delta region.

Keywords: Gender equality; female education; corporate social responsibility; multinational oil companies; logit model; sub-Saharan Africa.

JEL Classification: J43; O40; O55; Q10

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I. Introduction

Gender equality and inequality concern how people live daily: their relationships, choices, decisions and the freedom they have or do not have to live a life they value (Hausmann, 2014; Tchamyou *et al*, 2019). It is a matter of social justice and human rights which drive development progress, and both are vital for achieving peaceful, inclusive, resilient and just societies (Sharma *et al*, 2013; Crawford, 2009; Tchamyou, 2019). Education and gender equality are central concerns in the new sustainable development agenda. The 2030 Incheon Declaration and Framework for Action, agreed on by the global education community in November 2015 to accompany the Sustainable Development Goals (SDGs) agenda, recognizes that gender equality is inextricably linked to the right to education for all, and that achieving gender equality requires an approach that ensures that females and males not only gain access to and complete education cycles, but are empowered equally in and through education (African Development Report, 2015; Nimer, 2018; Russell, 2016; Singh *et al*, 2015). To facilitate and achieve this, better evidence based knowledge and understanding of gender issues in and through education are needed. Education opens doors to better livelihoods, improved health and expands opportunity; it empowers people, especially women, to take active roles in their communities and build more secure futures for their families (Kabeer, 2005; Klasen, 2002; Unterhalter & North, 2013; Etta, 1994; Klasen & Lamanna, 2003; Mwamwenda, 1994; Shapiro & Tambashe, 2001; Asongu & Tchamyou, 2019a, 2019b; Tchamyou, 2020). In Africa, education for females has been identified as one of the best solutions to reversing the relentless trend of poverty and disease devastating large portions of the continent (Anyanwu *et al*, 2016; Assie-Lumumba, 2000; Browne & Barret, 1991; Uduji & Okolo-Obasi, 2018a; Seguinto & Were, 2012; Ombati & Mokua, 2012; Asongu *et al*, 2019a, 2019b). Not only does ensuring access to education for females directly improve the feasibility of SDGs, it has also a positive impact on the other sixteen goals. However, most females in rural areas of sub-Saharan Africa are excluded from education not just because of cultural resistance or unwillingness, but also because of poverty (Onditi & Odera, 2017; Uduji & Okolo-Obasi, 2018b; Kille, 2014; Asongu & Odhiambo, 2018; Asongu *et al*, 2019c).

In recent years, companies have increasingly focused their corporate social responsibility (CSR) efforts on creating opportunities for women and girls. Often, CSR gender efforts start with a focus on bringing women 'up to speed' through training, hiring quotas, and

scholarships. For example, in the financial service sector, a significant number of companies have some portions of their CSR portfolio dedicated to financial literacy for women around the world; these investments focus on issues ranging from household finances to entrepreneurial business skills and salary negotiations (Harman *et al*, 2009; Moeller, 2013; Murphy *et al*, 2009). In Nigeria, multinational oil companies (MOCs) have been involved in a plethora of CSR activities in scholarship and education programmes;- a welcome feature of educational development, especially in the Niger Delta area. Some of the scholarship and education programmes associated with MOCs may include, university scholarship scheme, cradle-to-career scholarship, secondary school scholarship scheme, Niger Delta postgraduate scholarship, student internship/research, graduate awareness, professional chairs, eco-marathon, research & development, sabbatical and research guest lectureship, among others (SPDC, 2013; Chevron, 2014). The MOCs' support for educational development in this CSR portfolio involve assisting host communities to provide sustainable and qualitative education that ultimately reaches all the people in the region; they ensure active consultation at all stages of development planning, implementation and evaluation, with all stakeholders.

However, academics such as Ekhaton (2014), Idemudia (2014), Edoho (2008), Akpan (2006), Alfred (2013), Frynas (2009), Tuodolo (2009), Uduji *et al* (2018b), and others have argued that CSR interventions of MOCs in the Niger Delta are not far-reaching or deeply entrenched. Thus, it has been contended that some of these CSR programmes are not always sustained (Amaeshi *et al*, 2006; Philips, 2006; Eweje, 2006). While in contrast, Ite (2006) and others argued in support of the CSR programmes of MOCs in the region given the extent of governmental failure. Despite the various CSR programmes and projects by MOCs, the oil-producing communities have not received a proportionate benefit compared to the high social and environmental costs of extractive activities that have resulted in a significant decline in farming and fishing in the region, which are the traditional sources of livelihood of the people (Uduji & Okolo-Obasi, 2017, 2018a; Uduji *et al*, 2019a). To further elucidate these assertions, Lompo & Trani (2013) noted that CSR interventions of MOCs undermined human development in the region; while Renouard and Lado (2012) observed that CSR activities of MOCs have somewhat contributed to the improvement of the material well-being of some of the people living close to oil production sites, but inequalities or relational capabilities have actually deteriorated in these communities.

Girls and women who peddle various items but suffer commercial shortfalls readily become victims of predators or voluntarily resort to commercial sex (Uduji & Okolo-Obasi, 2018b, 2018c, 2018d). Some of the young rural women say that their husbands have migrated to the industrial cities of Port Harcourt, Warri and Eket in search for employment in oil companies and often yield to the pressure from other males to have unprotected sex (Uduji *et al*, 2018b, 2019b, 2019c). Yet, low level of human capital still characterizes the Niger Delta; worse yet, levels of human capital are much lower for women than for men (NDDC, 2004). For instance, literacy rates among the women have historically been lower than those for men; similarly, women in the region complete fewer years of schooling than men (NDDC, 2001). These unequal outputs have implications on the ability of men and women to tap into the opportunities presented by economic growth in Nigeria. Against this background, the aims of this study, which are in line with the new CSR model of MOCs called General Memorandum of Understanding (GMoUs) relative to the Sustainable Development Goals agenda, are to:

- Analyze the level of multinational oil companies' CSR intervention in female education empowerment (post-secondary) in the Niger Delta of Nigeria.
- Examine the impact of multinational oil companies' GMoUs on female educational development in the rural communities of the Niger Delta.
- Determine the consequences of intervening in female education development in the Niger Delta.

Study Hypothesis

Literacy rates among women have historically been lower than those of men in the Niger Delta in Nigeria. Similarly, the women complete fewer years of schooling than men. Despite the multinational oil companies' CSR investments in scholarship and education programmes, low levels of human capital still characterize the region. Worse yet, levels of human capital are much lower for women than for men. As a result of these unequal outputs, the ability of women to tap into the opportunities associated with economic growth in Nigeria is limited. Thus, we hypothesized that CSR investments/interventions of multinational oil companies have not been significant in positively impacting female education development in the rural Niger Delta region.

In the light of the above, the main question this research aims to answer is the following: How do CSR interventions impact on female education development in the rural Niger Delta

region of Nigeria? To this effect, the study adopted a quantitative method and used a survey technique to get information from a specimen of rural young girls in the region. However, the main caveat of the study is that it is limited to the scope of rural areas of the Niger Delta region of Nigeria. Hence, the findings may not be generalized to the private sector in the rest of Africa or other developing regions of the world, facing the same policy challenges. In the light of this limitation, replicating the analysis in regions such as Asian and South American countries is worthwhile in order to examine whether the established nexus withstands empirical scrutiny in different rural contexts of developing countries. Another caveat is the absence of explicit differences between CSR programs and strategies of oil companies. Hence understanding whether they are homogenous or not, as far as women's education is concerned should be taken on board in future studies.

The rest of this paper is organized as follows: Section 2 describes the materials and methods. Section 3 presents the results and corresponding discussion. Section 4 concludes with implications and future research directions.

II Materials and Methods

In this study, a quantitative method is adopted, given quantitative data availability constraints and sparse quantitative research on CSR in the region (Uduji & Okolo-Obasi, 2018c). This study made use of a survey research technique targeted at obtaining information from a representative sample of rural young women in the region. It is essentially cross-sectional and describes as well as interprets what exists as at the time of the survey (i.e. April 2017 to September 2017). Secondary data was also generated from the major MOCs to confirm the data from the field. Interventions in the past ten years (i.e. January 2007 to January 2017) were accessed. This period was chosen because it is consistent with the ten years of the existence of GMOUs. Figure 1 identifies the constituents' administrative states in the Niger Delta of Nigeria.

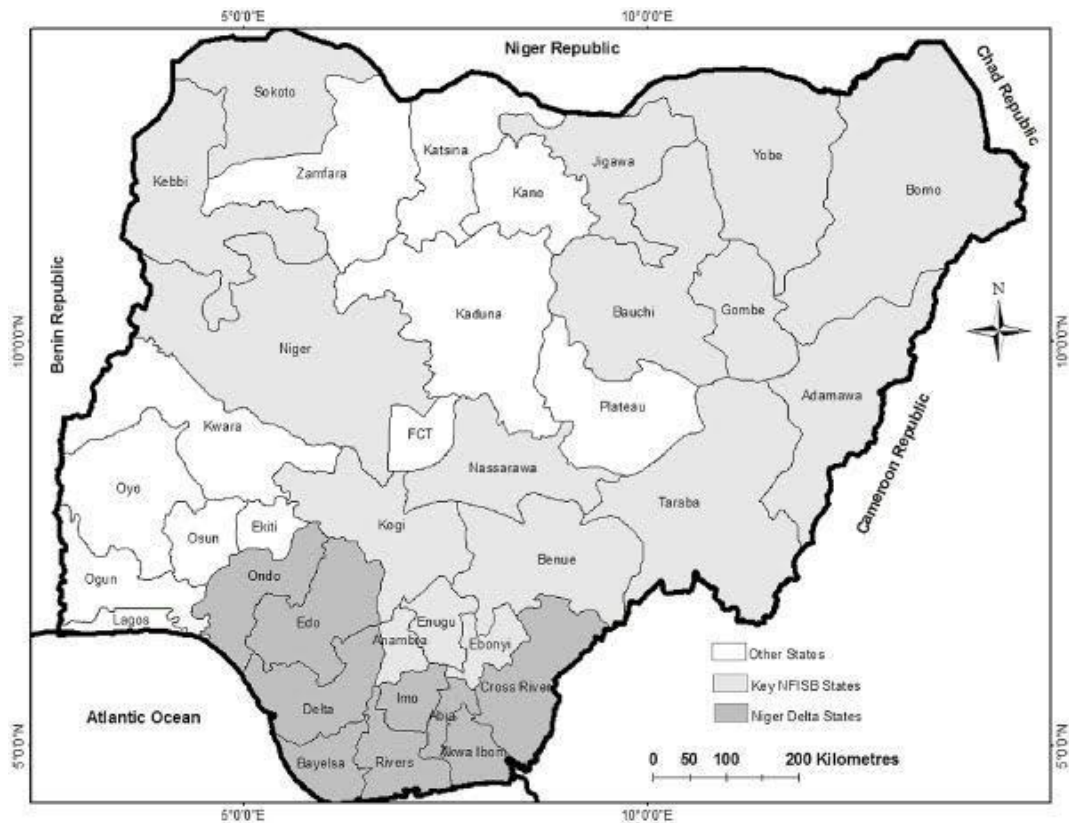


Figure 1: Constituents administrative States of the Niger Delta, Nigeria.

Source: NDDC, 2004.

Sample size

The sample size determination formula developed by Cochran (1977) was used to obtain a sample size of 800 respondents in the rural communities of the Niger Delta region of Nigeria as shown in Equation 1.

$$\text{Sample size} = n_o = \frac{Z \times Z(PQ)}{e^2} \tag{Eq. (1)}$$

where, z = z-score = confidence level

P= The estimated proportion of the population that has the attribute in question (in this case that are rural farmers)

e = The desired level of precision, margin of error = confidence interval

Having chosen a confidence level of 95 percent, with 5 percent margin of error, the estimated population of females in the region is 0.55. Substituting the values in our equation, we have:

$$n_o = \frac{1.96 \times 1.96 \times (.49 \times .51)}{.05 \times .05}$$

$$no = \frac{3.8416 \times .2499}{.0025}$$

$$no = \frac{.960016}{.0025}$$

$$= 384$$

This was approximated to 400, and also doubled to further minimize possible errors in the sample selection. Hence, a total sample unit of 800 respondents was chosen for the study. We also doubled the determined sample size because the latest census figure is over ten years old and the population has been growing since then.

Sampling procedure

Both purposive and simple random sampling were combined to select the final respondents for the study. In Stage One of the selection, we applied purposive sampling to select two of the most rural local government areas (LGAs) each from the nine states of the Niger Delta region. In the context of the study, rural is measured by the level of development in the areas of access to basic social amenities that enhance health, education and general wellbeing. Such LGA will also host or be close to MOC facilities. For instance, in Rivers state, between Port Harcourt city, Tai, Asari-Tolu and or Ogu- bolu LGAs, the Port Harcourt (PH) city is more urban. People living in Tai wish to migrate to PH. In Bayelsa, people living in Ekeremor or Sagbama LGA want to migrate to Yenegoa because of the availability of social and economic amenities. The same purposive sampling was used to select three rural communities from each of the selected rural LGAs on the same basis that the communities are more rural than others and is either hosting or very close to another community hosting oil facility. To this, fifty-four rural communities were selected. In the final stage, we applied simple random sampling with the help of community gate keepers to select 800 young women out of the selected rural communities based on the population of the state that the community is located (Table 1). In the random sampling, we randomly selected households from the list of households provided by community gate keepers. From each of the households randomly picked, we select any young woman available and willing to respond as at the time of visit.

Table 1.Sample size determination table

States	Population	Population of Female	% of Total Population	Sample Per Sate	Sample Per Community
Abia	2,881,380	1,451,082	9%	72	24
AkwaIbom	3,902,051	1,918,849	12%	96	32
Cross River	2,892,988	1,421,021	9%	72	24
Delta	4,112,445	2,043,136	13%	104	35
Imo	3,927,563	1,951,092	13%	104	35
Ondo	3,460,877	1,715,820	11%	88	29
Edo	3,233,366	1,599,420	10%	80	27
Bayelsa	1,704,515	830,432	5%	40	13
Rivers	5,198,716	2,525,690	16%	128	43
Total	31,313,901	15,456,542	100	800	267

Source: NDDC, 2001/ NPC, 2007/Authors' computation

Data collection

The participatory rural appraisal (PRA) technique was used to collect data for the study from primary sources. The PRA used was a written semi-structured interview (SSI) questionnaire. We used this participatory research technique in collecting CSR impact data especially as it concerns the rural women in the host communities in order to get the people being studied involved: knowing that their views on all the issues are paramount. The SSI was directly administered by the researchers with the help of research assistants. The local research assistants were used for three major reasons which include: Firstly, the study area is multi-lingual, having over 50 ethnic nationalities that speak different local languages and dialects. Secondly, the terrain is very rough as there is a high level of violence in some areas; hence, the need of a local guide. Finally, some items on the instrument require further explanation which will be best done in the local dialects. Hence the inability of the researchers to speak the different local languages and dialects of some of the sampled rural communities necessitated the use of local assistants.

Analytical framework

The data generated in the field were cleaned, carefully treated and analyzed with both descriptive and inferential statistics. In analyzing the data, answers to the research questions were sought for and the hypotheses of the study tested. The research questions were stated thus:

- What is the level of multinational oil companies' CSR interventions (scholarship, bursary, grants and loans, *inter alia*) in female education development (post-secondary) in the Niger Delta of Nigeria?
- Do CSR interventions (in scholarship, bursary, grants and loans etc) impact female education development in the rural Niger Delta region of Nigeria?
- What are the consequences of intervening in female education development in the Niger Delta of Nigeria?

They were answered using descriptive statistics; the results were presented in tables, figures and charts. Also to test the study's hypothesis which states that the CSR of the MOCs has not significantly impacted female education development in the Niger Delta of Nigeria, we used an inferential statistical tool. A logit model of receipt and non-receipt of MOCs' CSR via the GMoUs by rural women was estimated as a function of selected socio-economic variables. We adapted and modified Uduji & Okolo-obasi (2017), knowing that for binominal response variables, the logistic link is the natural logarithm of the odds ratios. This logit model is generally represented as follows:

$$\text{Log} \left(\frac{P_i}{1-P_i} \right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \dots + \beta_n X_n \quad \text{Eq. (2)}$$

Empirically the model is represented thus

$$\text{FEE} = X_0 + X_1 + X_2 + X_3 + X_4 + \dots + X_n \quad \text{Eq.(3)}$$

On this note, we estimate the impact of CSR activities of multinational oil companies using GMOU on female education empowerment in the Niger Delta region thus:

$$\text{Logit (FEE)} = \beta_0 + \beta_1 \text{GMOU} + \beta_2 \text{Age} + \beta_3 \text{HHcom} + \beta_4 \text{YHH} + \beta_5 \text{HHSize} + \beta_6 \text{HHEdu} + \beta_7 \text{HHpre} + \beta_8 \text{YOHM} + \beta_9 \text{MT} + \beta_{10} \text{HhMEdu}$$

Eq. (4)

Where:

FEE = Rural women education empowerment (post-secondary level).

GMoU =Multinational oil companies' corporate social responsibility via GMOU

Age = Age of the respondent

HHcom = Household composition (having male child (ren) = 1 otherwise =0)

YHH = Income of the household head

HHSize = Household size of the respondent

HHEdu = Highest level of education of the household head

HHpre = Preference of the household head among the children (Male = 1, female = 0)

YOHM = Income level of other household members

MT = Marital time of the respondent (early marriage = 1 otherwise =0)

HhMEdu = Highest level of education of other household members

**In this model, the main parameter of interest is β_1 in terms of sign and significance.*

III Results and Discussion

We begin this analysis with a description of the social (education), demographic (age, marital status, household size), and economic (income of household head and other household members) variables. The analysis of these characteristics helped us in understanding the differences in the socio-economic status of the rural women participating in CSR scholarship and education interventions compared with their non-participating counterparts in the region.

The analysis of Table 2 shows that the average age of the respondents is 38 years. About 10% of the respondents are below 20 years; whereas 11% are above 50 years. This shows that the study captured an active population with 79% being in the ages of between 21 and 50. Also the analysis shows that only 16% of the households represented have only male children; whereas 21% have female children only, and 53% have both a male and a female child. About 10% of the household represented have neither a male nor a female child most likely because they are either single or newly married. The analysis of the level of education of household heads shows that 26% of the household heads represented in the survey have no form of education at all. About 45% completed primary school, 22% secondary school, and only 7% completed any form of tertiary education (College of Education, Polytechnic, Monotechnic Universities etc.). Further analysis shows that 74% of the household heads without any form of education are the female household heads. However it is also amazing as the findings show that, 38% of the household heads that have tertiary education are still female household heads. On the other hand, the highest educational qualification of other household members shows that only 16% of the households that have no sponsor completed primary education. These households are mostly younger households whose children are still in primary school or older households whose children had no schooling opportunities. Others are the old couples that had not given birth to children. About 11% of the households have children that have completed tertiary education.

Table 2.Socio-economic characteristics of the respondents

Variables	Freq	%	CUM	Income of other members of Household			
Age of Respondents				None	98	12	12
Less than 20 years	78	10	10	1000 - 50,000	62	8	20
21-30 years	220	28	37	51,000 - 100,000	84	11	31
31-40 years	254	32	69	101,000 - 150,000	62	8	38
41 - 50 years	162	20	89	151,000 - 200,000	92	12	50
Above 50 years	86	11	100	201,000 - 250,000	103	13	63
	800	100		251,000 - 300,000	113	14	77
Household Composition				301,000 - 350,000	54	7	84
Males Only	128	16	16	351,000- 400,000	36	5	88
Females only	168	21	37	401,000- 450,000	65	8	96
Males and Females	421	53	90	451,000 - 500,000	20	3	99
None	83	10	100	Above 500, 0000	11	1	100
	800	100			800	100	
Household Size				Level of Education of other household members			
1-4 Person	248	31	31	None	126	16	16
5-9 Person	408	51	82	Primary	353	44	60
10-14 Person	102	13	95	Secondary	236	30	89
15 Person and above	42	5	100	Tertiary	85	11	100
	800	100			800	100	
Monthly Income Household Head				Marital Time			
1000 - 50,000	142	18	18	Single	196	25	25
51,000 - 100,000	124	16	33	15 – 20Years	269	34	58
101,000 - 150,000	154	19	53	21-30 Years	290	36	94
151,000 - 200,000	102	13	65	Above 30Years	45	6	100
201,000 - 250,000	93	12	77		800	100	
251,000 - 300,000	66	8	85	Level of Education of household head			
301,000 - 350,000	44	6	91	None	206	26	26
351,000- 400,000	36	5	95	Primary	363	45	71
401,000- 450,000	21	3	98	Secondary	173	22	93
451,000 - 500,000	12	2	99	Tertiary	58	7	100
Above 500, 0000	6	1	100		800	100	
	800	100					

Source: Computed from the field data by authors

This analysis also showed that 34% of the respondents married so early before their 20th birthday. About 25% of the respondents are still single, however further review shows that 47% of the single ladies in the rural communities were single parents. This observation supports Uduji *et al* (2018a, 2018b, 2019b, 2019c) in that the influx of people into the region

seems to have increased the pressure on behavioural, economic, social-cultural and biological factors that tend to influence the spread of HIV/AIDS in the Niger Delta. They come seeking opportunities from oil production; although many of the migrants end up in the cities, a large population goes into the rural areas. Some fill the gap left by the movement of local people into cities; they become farmers, fishers, hunters, harvesters of fuel wood and other non-timber forest products, quarry operators and artisans in other trades. This suggests that the issue of early marriage and teenage pregnancy are major barriers facing female educational development in the region. This calls for MOCs to go beyond CSR programmes that target individual women and consider the relationships and systematic factors that influence women's ability to thrive and succeed in education. These agree with the findings of Dejaeghere & Wiger (2013) in that CSR programmes that strive to create gender equity must be thoughtfully and intentionally developed to consider complex social, economic, cultural, and political nuances, such as household decision-making dynamics, gender roles, and access to resources.

Table 3. Projected effects of multinational oil companies' CSR investment in female educational development in the Niger Delta.

		B		Wald	df	Sig.	Exp(B)		95.0% C.I. for EXP(B)	
		Lower	Upper				Lower	Upper	Lower	Upper
Step 1(a)	<i>Age</i>	-.126	.019	4.103	1	.037	.934	.646	1.302	
	<i>HhMEdu</i>	.114	.322	.303	1	.651	.822	.735	1.519	
	<i>HHSize</i>	-.124	.006	.549	1	.382	.816	.741	1.482	
	<i>HHedu</i>	.017	.041	.752	1	.059	1.216	.673	1.529	
	<i>YHH</i>	.096	.104	.723	1	.498	.943	.527	1.155	
	<i>HHPre</i>	-.327	.141	.145	1	.621	.514	.531	1.188	
	<i>MT</i>	-.073	.125	.318	1	.062	1.630	.743	1.416	
	<i>HHcom</i>	-.219	.320	.053	1	.443	.662	.345	1.529	
	<i>YOHM</i>	.022	.152	.161	1	.679	.654	.612	1.296	
	<i>GMOU</i>	.941	.084	5.327	1	.024	8.141	1.344	1.546	
	Constant	5.169	.767	1.405	1	.178	6.318			

(a) Represents variable(s) entered on step 1: *Age, HhMEdu, HHSize, HHedu, YHH, HHCom, MT, YOHM, GMOU, HHPre.*

Source: Computed from the field data by authors

The projected effects of CSR investment (Table 3) indicate that focus on issues of education and capacity building is important to empower rural women in the region. This is supported in Marphatia & Moussie (2013) in that if a woman cannot contract a loan without her husband's approval, managing household finances would remain out of reach. Also, North (2013) concurs that if social norms dictate that a woman cannot work outside the home or

travel to other communities, she cannot use the business skills she's developed to engage in the work force.

Table 4. Z Value table of analysis of the impact of multinational oil companies' CSR investment on female education development in the Niger Delta

Predictor Variables	Coefficients	Z - Values
		$z = \frac{\hat{B}}{SE}$
Age	-.126 (.019) ^a	4.103 (.037) ^b
HhMEdu	.114 (.322) ^a	.303 (.651) ^b
HHSize	-.124 (.006) ^a	.549 (.382) ^b
HHEdu	.017 (.041) ^a	.752 (.059) ^b
YHH	.096 (.104) ^a	.723 (.498) ^b
HHPre	-.327 (.141) ^a	.145 (.621) ^b
MT	-.073 (.125) ^a	.318 (.062) ^b
HHcom	-.219 (.320) ^a	.053 (.443) ^b
YOHM	.022 (.152) ^a	.161 (.679) ^b
GMOU	.941 (.084) ^a	5.327 (.024) ^b
Constant	5.169 (.767) ^a	1.405 (.178) ^b

* Significant at 5%; - a = this only refers to standard error (SE) b= Associated P Value of the Z value

Source: Computed from the field data by authors.

A logistic regression analysis was conducted to predict the impact of the MOCs' GMOU on the empowerment of rural female farmers (access to farm input) using the variables in equation above as predictors.

$$\text{Logit (FEE)} = 5.169 + (.126) \text{ Age} + .114 \text{ HhMEdu} + (.124) \text{ HHSize} + .017 \text{ HHEdu} + .096 \text{ YHH} + (.327) \text{ HHPre} + (.073) \text{ MT} + (.219) \text{ HHcom} + .022 \text{ YOHM} + .941 \text{ GMOU}$$

A test of the full model against a constant only model was statistically significant, indicating that the predictors as a set reliably distinguished between the "yes" and "no" impact of CSR (chi square = 48.321, p <.000 with df= 8). Nagelkerke's R² of .724 indicated a strong relationship between prediction and grouping. Prediction success overall was 89% (90% for yes and 88% for the no). The Z- value for GMOU is 5.327, with an associated p-value of

.0041. The study based on a 5% significance level, did not reject the null hypothesis that CSR interventions of the MOCs under GMOU *have not made any significant impact on the female education empowerment of rural women in the Niger Delta region*. Meanwhile, the EXP (B) value of the Predictor – GMOU is 8.141. This implies that if the MOCs raise their CSR program to deliberately target and educationally empower women through tertiary education by a unit, equivalent of 1USD, the odds ratio is 8.1 times as large and therefore rural women are 8 times more likely to be empowered to make substantial contributions to community development.

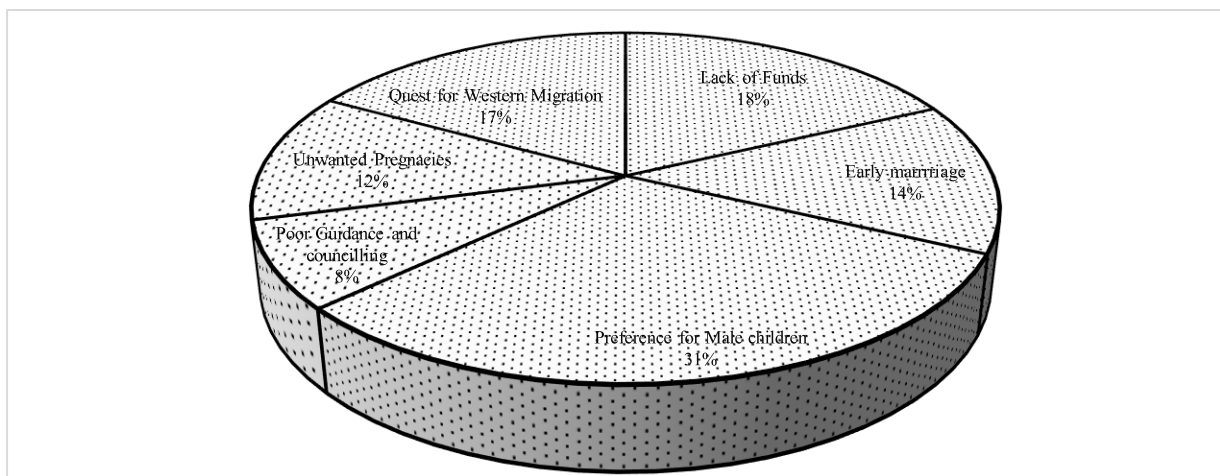


Figure 2.Percentage of the rural women according to their major challenges for post-secondary education in the Niger Delta.

Source: Computed from the field data by authors

The rural women in the region are faced with numerous challenges in accessing formal education. Some of the challenges are their making which they can easily change while others are rooted in the patriarchal culture in the Niger Delta. A deliberate effort by the MOCs to target sets of CSR interventions to empower women educationally could eventually become a solution of peace to the violence and conflict in the region. This assertion aligns with Uduji *et al* (2018b, 2019b, 2019c) in that the lack of specific targeted CSR initiatives for rural young people, has contributed to the rise of youth groups that align themselves with chiefs and engage in sabotage of oil company equipment (and violence with competing groups) in order to extract concessions and compensation from the oil companies for their communities. The finding is also consistent with Uduji & Okolo-Obasi (2017, 2018b) in that the environmental destruction which has accompanied oil extraction, along with the lack of

health interventions to reduce the spread of HIV/AIDS among the young rural women, has led to these grievances being amplified and directed toward oil companies.

The analysis of Figure 2 shows that the six major patriarchal cultural challenges faced by rural young women are the preference in education of males over females, quest to travel abroad by the young women, early marriage, unwanted pregnancy, lack of funds and poor guidance and counselling. The study reveals these as the major push factors that have cost the female young adult quality education. The findings suggest that sweeping CSR policies in education are required to disproportionately favour women in the Niger Delta. Contingent on external forces like macroeconomic flows, government, and company ethics, higher education and lifelong learning CSR interventions could enable women and men in the region to participate equally in decent work, promoting economic growth, poverty reduction and well-being for rural people in the region. This finding contrasts with Klasen (2002) in that achieving gender parity in education, while important, does also translate into gender equality in economic activity and employment opportunities. Wekwete (2012) agrees that African countries which have experienced rapid growth in female education have also witnessed a commensurate increase in decent work.

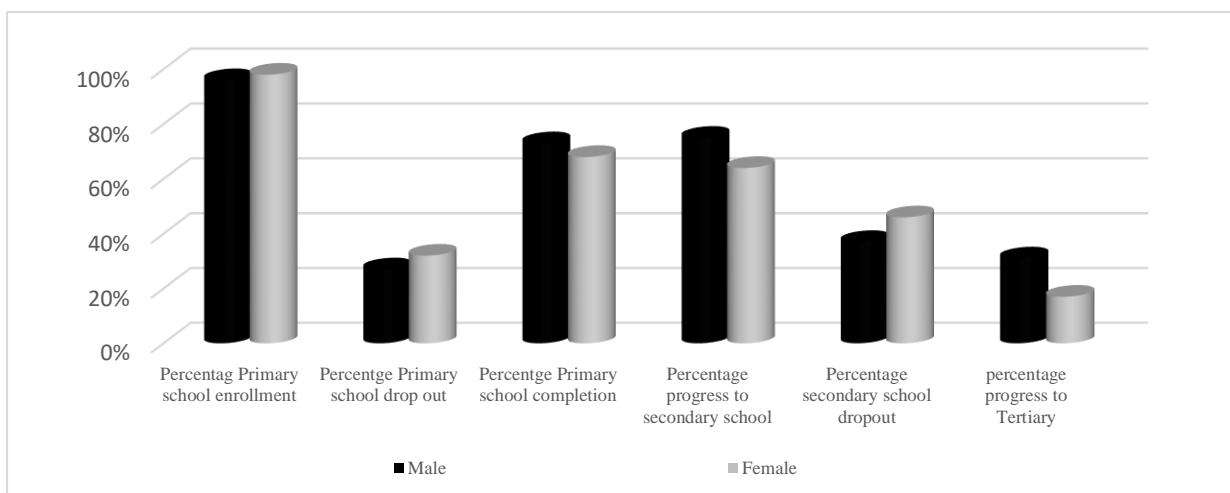


Figure 3. Rates of school dropout due to poverty in the Niger Delta.

Source: Computed from the field data by authors.

The analysis of Figure 3 shows that at the early stage, 96% of male children and 98% of females enroll into primary school; out of this, 27% of them could not complete primary education; whereas 32% of the females could not. Out of the total number that finishes

primary school, 75% of the males proceeded to secondary; whereas only 64% of the females moved further with their studies. About 41% of the males dropped out; whereas the dropout rate of the females was 46%. This could be attributed to the universal basic education that was free in the country; and most households would prefer to train the males more than the females. Also about 37% of the males that completed secondary school would progress to tertiary institutions; only 17% of the females proceeded for further educational attainment. The main reason behind this is that, even when the MOCs provide scholarship opportunities, the households and communities chose to nominate the males over the females irrespective of intelligence. This finding suggests that males are favoured when most household heads were men; whereas 69% of the females' headed households would prefer to train males than females as against only 54% of the males' headed households. It is on this note that we suggest that if part of the CSR scholarship can deliberately target the female child exclusively, it will ensure that access to quality education of the girl child is enhanced to reasonably bridge the inequality. Buvinic *et al* (2014) support investment in females' education in that, when a company gets females into schools and continues their learning, they would change the development course of the people. Collins (2014) is consistent with the position that investment in females' education may be associated with a considerable return on investment in a developing country. Dejaeghere *et al* (2013) concur that with targeted female education investments linked to market demand, women will reverse cycles of poverty with a huge impact on the global economy.

Table 5.Percentage rating of MOCs' investment in education in the Niger Delta.

CSR Intervention Areas	Total E&P	Exxon Mobil	Chevron	Shell	Agip	Average: Field Survey	Average: Data from MOCs	Diff.
Building of school blocks/other infrastructures	32	23	21	24	29	25.8	26.5	0.7
Equipping of Library and Laboratories	11	15	15	12	16	13.8	14.3	0.5
Provision of school uniform and teaching aids	3	8	5	2	5	4.6	3.8	(0.8)
Provision of special female scholarships	0	0	0	0	0	0	0	0
Provision of local scholarships	22	19	32	34	20	25.4	27.6	2.2
Training and re training of teachers	9	12	9	7	7	8.8	6.3	(2.6)
Provision of oversea scholarships	17	15	16	19	18	17	18.7	1.7
Provision of school meal	6	8	2	2	5	4.6	2.8	(1.8)
	100	100	100	100	100	100	100	0

Source: SPDC, 2013/ Chevron, 2014/ Computed from the field data by authors.

The analysis of Table 5 shows the percentage rating of investment in educational development of major MOCs in the host communities. When asked to rate the MOCs investment in education, the respondents pointed-out that the highest CSR intervention in education in their communities is in the area of provision of school blocks and local scholarships which accounted on average 25.8% and 25.4%, respectively. The difference between this and the data from the MOCs themselves is not much (0.7). Provision of overseas scholarships account for 17% of the total investment; whereas equipping of school libraries and laboratories accounts for 13.8%. However, what remains glaring is that none of the MOCs have a special scholarship program targeted at the females; this is equally confirmed by the data from the MOCs. This finding suggests that investing in female education is an opportunity also for MOCs to reduce immortality, prevent new cases of HIV, and improve women’s labour force participation and income potential in the Niger Delta region. Gabriel (2012) agrees that these benefits are at the center of a number of public sector programmes because female education is a causal factor of improved economic and development indicators. The IMF (2018) Nigeria-country report acknowledged that beyond the philanthropic and social benefits, the economic benefits of investing in and improving female education requires substantial time and resources.

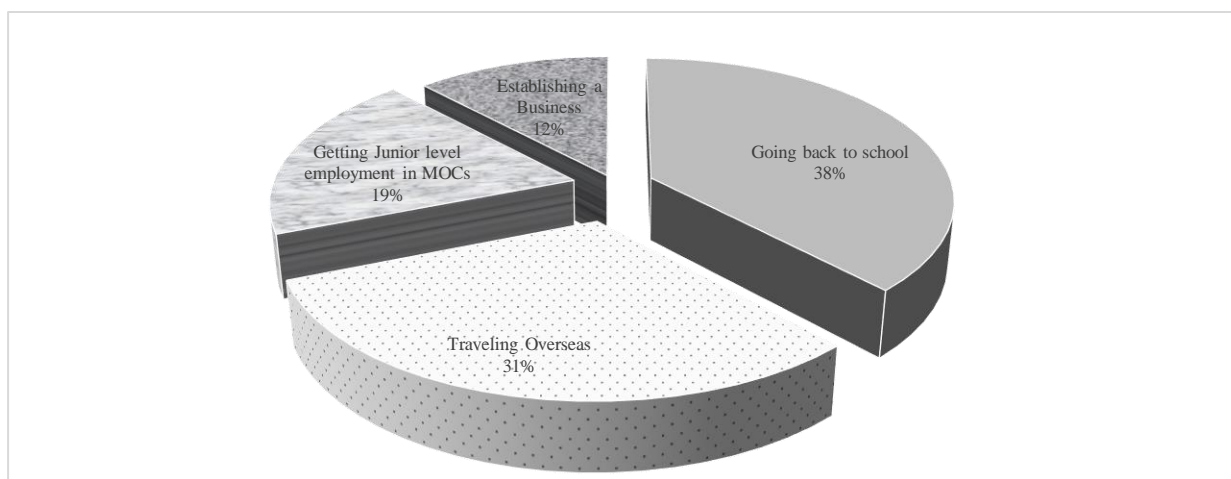


Figure 4.Percentage distribution of rural women’s willingness to pursue tertiary education in the Niger Delta.

Source: Computed from the field data by authors.

The analysis of Figure 4 shows that a good proportion (38%) of the rural women is interested in having tertiary education in order to be more equipped to confront the challenges of life. However, 62% are not interested even if there is a scholarship opportunity for them. Out of

this 62%, 31% desire a visa to travel overseas, 19% would prefer to be employed even as a cleaner in the MOCs; whereas only 12% want to start their own business. Uduji and Okolo-Obasi (2018b) have the same view that most of the young girls in the region who are forced into marriage by their parents are completely banned by their parents from going to school. Also Uduji *et al* (2019b) concede that some of the girls excelled in studies, so it is safe to say that in the Niger Delta, bright rural young girls, who could potentially help develop their local communities, are shut off, and their potentials to shine extinguished. This calls for the need for policy dialogue and advocacy activities by MOCs, working with governments and addressing educational and economic opportunity policies and support for increased levels of government aid for female education in the region; as the obstacles to female access to education in the region are significant barriers to social and economic progress in the Niger Delta. In other words, this finding prompts the consideration that lack of proper education is another reason why rural people in the Niger Delta get their children married at a young age; when their culture does not consider the post-marriage life the girls will have to face and child birth complications. Moreover, due to the lack of education, rural people in the region tend to hold onto many unhealthy traditional beliefs and norms. Pérouse de Montclos (2014) agrees that female education in Nigeria is not just a matter of improving earnings potential in the long term, but its power extends to matters of life and death. Oniye (2008) confirm that the gains associated with female education do not only manifest in the long term, but also can pay off more acutely, especially in the areas of health, labour force participation and human security. Smith-Greenaway (2013) concurs that better educated women become healthier mothers that would take care of their children properly. Unterhalter *et al* (2013) added that female education directly impacts productivity levels and participation rates in the labour force.

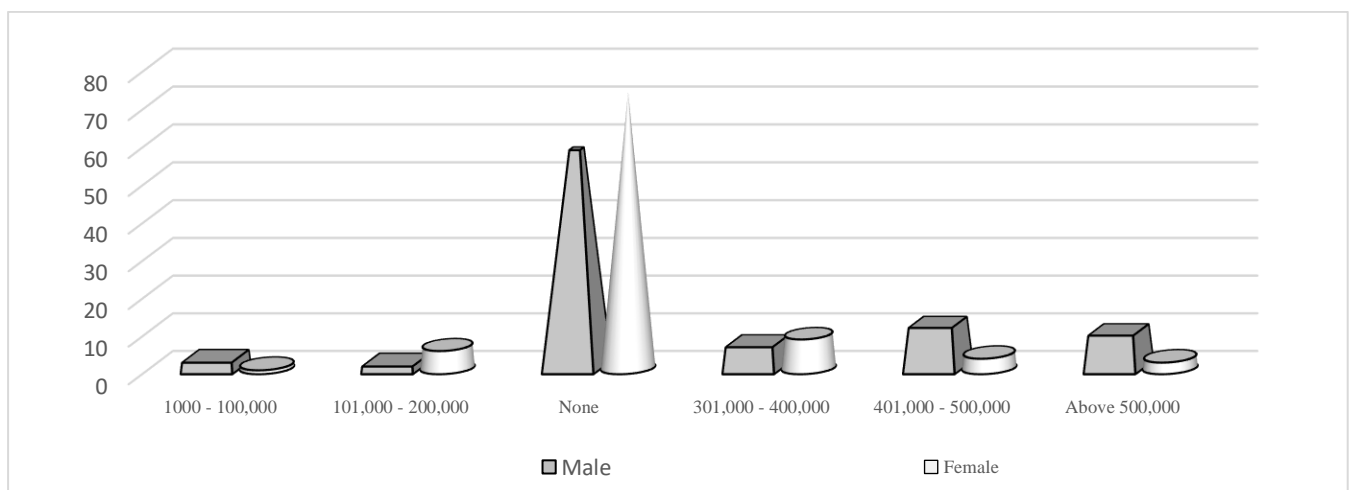


Figure 5.Rate of receipt of scholarship and education intervention from MOCs in the Niger Delta.

Source: Computed from the field data by authors.

The analysis of Figure 5 shows that in the households represented, 58% of the male folks have never received any form of scholarship intervention; whereas the female folks that have not received scholarship intervention stands at 73%. Again, 10% of males have received above ₦500, 000 (equivalent of \$1,385 USD) interventions, which include oversea scholarship programmes; whereas only 3% of the women have received such a privilege. This indicates that in the administration of the CSR interventions of multinational oil companies, there is inequality among male and female folks. If the trend continues, the impact on female education in the Niger Delta may perpetuate the obstruction of women's participation in economic, political and social development. By extension, this could delay the reduction of poverty and attainment of Sustainable Development Goals in the Niger Delta region. Parkes *et al* (2013) agree that when a woman is well educated, both her professional and social skills are enhanced. Tanye (2008) added that in addition to the woman herself, her family and her community-business benefits from an increase number of educated individuals, regardless of location. Zenn & Pearson (2014) concur that the particular benefits that educated women bring to their households and community are large, naturally extend to the employers of these better educated, healthier and more productive individuals.

Uduji & Okolo-Obasi (2019) had insisted on the negative consequences of the presence of oil companies on girls in the Niger Delta; that traditionally, the people of the region have been farmers and fishermen, but the decades of oil spillage and gas flaring, as well as rapidly growing population, have meant these traditional sources of livelihood are either no longer viable or have experienced a significant decline. Consequently, girls in rural areas of the region are excluded from education mainly not because of cultural resistance or unwillingness, but because of poverty – the main barrier to girls' education. Uduji *et al*(2019b, 2019d, 2019e) are in harmony with the opinion that for over a decade, education for girls has been identified as one of the best solutions to reversing the relentless trend of poverty and diseases devastating rural people in the Niger Delta region; not only does ensuring access to education for girls directly improve the feasibility of SDGs 2 and 3 in the rural communities, it also has a positive impact on the other six goals in the region. This study has demonstrated the direct and indirect benefits of intervening in girls' and young women's education. Moreover, reduction of rural poverty (SDG 1), improvement of maternal

health (SDG 5) and lowering of incidences of HIV/AIDS (SDG 3) are some of the positive outcomes when a girl is educated in sub-Saharan Africa.

Overall, the findings of this study suggest that the relative priorities of multinational oil companies' CSR interventions in the Niger Delta should be different from the classic, American ordering as proposed by Carrol (1991). The importance of a cultural context in the determination of appropriate CSR priorities and programmes as suggested by Visser (2006) is necessary in the context of the rural Niger Delta. There is also the need for flexibility as suggested by Amaeshi *et al* (2006) in addressing the peculiarity of the socio-economic challenges in the region, which involve closing the gender gap in education. Also, in this context, borrowing from Muthuri (2012) who posits that it is imperative for CSR interventions in Africa to include poverty reduction, education and training. But in extension and contribution, if we are to contribute on how CSR interventions can advance gender equality in education in the Niger Delta, we would argue that multinational oil companies' CSR can play an important role in advancing gender equality when investment in scholarship and education is designed for the complexities of real life. Acknowledging the web of challenges within families, communities, and at the policy level that shape a woman's experience is critical to implementing effective CSR programming. These power dynamics are complex and challenging to navigate, but by improving gender equity, MOCs would improve outcomes for all in the region. It is our contention that the private sector generally, is well suited to address some of the logistical and cultural challenges that face women's access to higher education in the Niger Delta. Multinational oil companies, in particular, are well positioned for the transfer of responsible business practices and standards, technologies and infrastructure that facilitate knowledge creation and promote gender diversity and more equal access to economic opportunity and human capital development. As employers in tomorrow's job market, they are best suited to help to create today's educational curricula. Perhaps, most importantly, they will be among the beneficiaries of this transfer in the long run. Hence, embracing gender equality in education development should be prioritized in CSR practices in the Niger Delta because doing so can contribute towards improving the environment for doing business in the region.

IV Conclusion and policy implications

Issues of gender equality in education have been the subject of much debate during the past decades and have become a prominent topic of debate in Nigeria. In the Niger Delta region, there are large disparities between the education that boys and girls receive. Many girls particularly in rural areas do not have access to adequate education past a certain age. Despite the multinational oil companies' CSR interventions in scholarship and education programmes, low levels of human capital still characterize the region. Worse yet, levels of human capital are much lower for women than for men. As a result of these unequal outputs, the ability of women to tap into the opportunities presented by economic growth in Nigeria is limited. Thus, we set out to assess the impact of the multinational oil companies' CSR interventions in female education development in the Niger Delta. Results from the use of the logit model indicated that CSR interventions have recorded significant success in supporting education initiatives generally, but have also undermined those focused on empowering rural women in the region; due to the cultural and traditional context, anchored in beliefs, norms and practices that breed discrimination, and women's vulnerability to illiteracy and poverty. This implies that if CSR interventions are not tailored to enhance opportunities for women, they may contribute towards reducing the participation of women in economic, political and social development and by extension dampen efforts of reducing poverty and achieving the Sustainable Development Goals in the Niger Delta. The results also showed that rural women depended on CSR investments/interventions of multinational oil companies to address some of the logistical and cultural challenges that are associated with women's access to post-secondary education in local communities. The results suggested the need to support education initiatives that focus on empowering rural women by means of scholarships that facilitate knowledge creation and by extension, gender diversity for economic opportunities in the Niger Delta. This will require intensified efforts to eliminate discrimination and promote equalities.

The study adds to the literature on gender parity in access to educational opportunities in five notable ways. Firstly, we identified the key gender gaps in accessing educational opportunities provided by multinational oil companies in the Niger Delta of Nigeria. Secondly, the research provides insights into how CSR interventions can advance gender equity in rural areas of the Niger Delta region of Nigeria. Thirdly, departing from previous studies, this research employs a quantitative methodology to tackle the sparse quantitative

scholarship on the relevance of CSR in the region. Fourthly, the investigation seeks to explore the nature of an African CSR model in rural women's education development. Fifthly, we put forward policy suggestions that would aid multinational oil companies to successfully tackle the challenges of scholarship and education programmes in the Niger Delta region of Nigeria.

Disclosure statement

No potential conflict of interest was reported by the authors.

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