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Forthcoming: Development in Practice

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Government Enterprise and Empowerment Programme (GEEP) and Women's Performance in Entrepreneurship Development in Nigeria

Elda N. Okolo-Obasi & Joseph I. Uduji

Abstract

This study examined the impact of the government enterprise and empowerment programme (GEEP) on women's performance in entrepreneurship development in Nigeria. Results from the use of difference-in-difference (DiD) quasi-experimental design indicate that GEEP intervention has significant impacts on enterprise turnover, reduction in per unit cost of production, increase in profitability and return on investment (ROI). The results also show unequal access to resources and opportunities available in GEEP, between rural and urban residents. The findings suggest that if the rural women had equal access to the resources and opportunities available to their urban counterparts in GEEP, they would participate in traditional industries and build livelihoods in rural economies. This implies that embracing increased GEEP interventions with rural dwellers will enhance women's entrepreneurship development, raise women's economic status and deter aggression in Nigeria.

Keywords: Women's entrepreneurship development, government enterprise and empowerment programme (GEEP), rural and urban residents, sub-Saharan Africa

1. Introduction

According to African Development Report (2015), widespread inequality is limiting both growth and poverty reduction across Africa. These income disparities have remained persistently high over decades, leaving Africa one of the world's most unequal regions. In this continent, income inequality mirrored in unequal access to resources and opportunities between rural and urban residents, and between men and women (African Economic Outlook, 2017). In short, gender inequality remains a major barrier to efforts to reduce poverty in Africa (African Competitiveness Report, 2017). There has, however, been some progress, especially in educational enrolment and access to health care; notwithstanding this, women and girls in Africa are far from enjoying the opportunities and benefits arising from economic prosperity compared to their male counterparts (IMF, 2017). This calls for prioritization of gender issues

in development and the need to recognize equity as an important prerequisite for success in all development objectives. For example, in Nigeria, the National Social Investment Programme (NSIP) was established in 2015 by the Federal Government of Nigeria (FGN), with four programmes to provide financial support and training to business and entrepreneurs at the bottom of the financial pyramid (FMHDS, 2018). These programmes include: the N-power programme which provides young Nigerians with job training and education, as well as a monthly stipend of 30,000 Nigerian naira (USD 83.33); the conditional cash transfer programme (CCT) which directly supports the most vulnerable by providing no-strings-attached cash to those in the lowest income group; the home grown school feeding programme (HGSF) which focuses on increasing school enrolment by providing meals to school children, particularly those in poor and food-insecure regions; and GEEP, which is a micro-lending investment programme targeting entrepreneurs with a focus on young people and women, to provide no-cost loans to the beneficiaries which helps to reduce the start-up cost of business ventures in Nigeria (FMHDS, 2018). The GEEP programme was launched as one of Nigeria's National Social Investment Programmes under the management of National Social Investment Office (NSIO) to alleviate poverty by providing access to funds for Nigerian entrepreneurs who will otherwise struggle (Adamgbe *et al*, 2020). This programme was launched with two broad objectives: access to funding by providing microloans in an easily assessable way to those at the bottom of the pyramid who engage in commercial activities but face significant challenges with access to finance/ credit; financial inclusion through this microloans offers access to finance by ensuring that the beneficiaries are brought under the former financial sector and can further seize the opportunity to access other credit products from financial service providers (FMHDS, 2018). Consequently, GEEP launched three products namely: MarketMoni (a loan scheme that provides interest and collateral – free loans to SMEs within established market association clusters; TraderMoni (a micro loan scheme that provides interest and collateral-free loans to petty traders and artisans in Nigeria; FarmerMoni (a loan scheme targeted at farmers belonging to aggregator farming group); in its literal meaning, these names were coined from the pidgin language understood by Nigerians (Onah and Olise, 2019; Adamgbe *et al*, 2020; FMHDS, 2018). A federal government grant of ₦140 billion (US \$388, 888.88) was invested in GEEP with a goal of reaching over a million women, 200,000 artisans and MSMEs, 260,000 young people and women business ventures, and 200,000 farmers and agricultural workers (Adamgbe *et al*, 2020; FMHDS, 2018). By 2018, GEEP had provided low-cost micro-lending to over a million women, enterprising young people, agricultural workers, and other vulnerable economic producers, suggesting GEEP has been more successful than other National Social

Investment Programmes in supporting the development of otherwise low-productivity sectors of the population, bringing millions of people into the modern economy, while lifting communities out of poverty (Onah and Olise, 2019). According to Adamgbe *et al* (2020) the GEEP has been able to properly target and deliver credits to 2.3 million Nigerians with projections to 20 million by 2023.

Yet, the extent to which the GEEP initiative of the NSIP has contributed to the sustainable economic development and employment generation in Nigeria remains contested. While proponents view GEEP as a vehicle for ensuring a more equitable distribution of resources to vulnerable populations, especially women living in the rural communities, critics see it as a new platform for siphoning the old institutions (African Development Report, 2015; IMF, 2017). This difference in perceptions invariably sets the context for the GEEP debate, pitting those in favour of preserving an already well-established sustainable development initiative against those who insist that a sustainable development initiative must adapt to changing social values (Onah & Olise, 2019). The above debate shows both the complex nature of different peoples' perception GEEP and its contribution to sustainable entrepreneurship development in Nigeria.

Meanwhile, rural dwellers in Nigeria often associate informal farm enterprise with menial work and are disenchanted with the lack of opportunities for rural livelihood (Adamgbe *et al.*, 2020). This has created some incentives for rural women to migrate to the urban centres, thus fueling frustrations and tensions in already overcrowded Nigerian cities. Some authors have suggested that a better way to improve the lives of women is to first improve the accessibility of basic services (water, hospitals, schools, roads etc.) in their communities (African Development Report, 2015; African Competitiveness Report, 2017; IMF, 2017). Others highlight the importance of strengthening communities, so that they can be functional in nurturing and supporting women, thus ensuring sustainable development while easing population pressures on cities (FMHDS, 2018; African Economic Outlook, 2015; Bloom, 2012).

Against this background, our emphasis in this study is on empowering and developing rural women in sustainable entrepreneurship; so that they will in-turn contribute positively to human food and nutritional needs of their communities. This could also deter trafficking of women from rural communities to cities, for prostitution, street trading and exploitative domestic work. The GEEP programme is a development agenda that provides people with the resources needed to improve their livelihood and those of their communities by means of an enterprise

transformation programme. The paper seeks to establish the level of FGN investment in the GEEP intervention programme; determine the spread of the intervention in line with the locations and ages; and, explore the impact of the intervention on women's performance in entrepreneurship development in Nigeria. These three areas of focus similarly represent three main questions notably:

- What is the level of FGN investment in the GEEP intervention programme in Nigeria?
- What is the spread of the GEEP intervention in line with the locations and ages across Nigeria?
- Do GEEP interventions trigger positive changes on women's performance in entrepreneurship development in Nigeria?

The corresponding testable hypothesis builds on the following points: women are a major group of Africans who have remained widely excluded from gainful employment and subsequent economic progress and that this enduring inequity is one of the most critical policy challenges facing the continent. This challenge needs to be addressed through measures that stimulate labour markets for women. Thus, we hypothesize that GEEP has not significantly impacted on rural women's entrepreneurship development in Nigeria. The finding of the study in response to the testable hypothesis contributes to the growing literature on the relevance of rural women's performance in sustainable entrepreneurship development. The finding departs from contemporary entrepreneurship literature where scholars have focused on divergent issues like challenges facing women entrepreneurs in Nigeria (Halkias *et al*, 2011), policies for supporting women entrepreneurs in Tanzania (Nziku and Henry, 2020), as well as the way forward in introduction of Enterprise and Economic Development in Africa (Nziku and Struthers, 2021). Other scholarship involve Ogundana, *et al*, (2021) which focused on developing a new gender-based model of growth to account for factors influencing the growth of women-owned businesses in developing economies. Also, Panda (2018) examined constraints faced by women entrepreneurs in developing countries while Santos and Neumeyer, (2021) concentrated on gender, poverty and entrepreneurship. In their own contribution, (Simba *et al*, 2022) assessed women entrepreneurs in Nigeria, Jones *et al*, (2018) touched entrepreneurship in Africa, while Ogundana *et al*, (2019) looked at growth perception amongst women entrepreneurs. From the cultural angle, while Wolf and Frese (2018) examined why husbands matter in women entrepreneurship in sub-Saharan Africa, Adom and Anambane, (2019) examined understanding the role of culture and gender stereotypes in women entrepreneurship. None of

these studies examined the impact of a particular programme or programmes as it relate to empowering women entrepreneurs.

The subsequent parts of the paper are organized as follows: section two looks at the literature and theoretical underpinnings. Materials and methods are clarified in section three, and section four deals with the results and corresponding discussion. Finally, section five brings the work to an end by looking at implications and future research directions.

2. Literature and Theoretical Underpinnings

2.1 Why gender inequality is a major concern in Africa

According to African Development Report (2015), women's participation in economic, political and social development is being held back by unequal access to resources and opportunities and unacceptable levels of interpersonal violence. This causes both direct harm to women and their children, and wider costs to African economies (Fawamba *et al*, 2015). Africa owes its women and girls a better deal with targeted intervention to raise women's economic status and deter aggression (Byukusenge *et al*, 2015). According to the IMF (2017), the contribution of women and girls in Africa's development is limited by their low numbers in the labour force. In addition, the selection bias in favour of males means that relative to females, males with less innate ability are more likely to be educated and employed, resulting in sub-optimal resource allocation between the sexes (African Development Report, 2015). Nevertheless, whether African women are educated or not, employed in the formal sector or not, they continue to play a central role in household livelihoods and the wellbeing of children. Their lack of resources, therefore, poses costs to the continent as a whole and has implications for future generations.

Urban migration also shapes African women's opportunity for jobs, education, training, and professional networking. According to the International Monetary Fund (IMF) (2017), on average, poverty is significantly higher in rural areas, especially among marginalized small holders who depend on subsistence farming and a small cash income from crop sales, wage labour or remittance. For women, this situation is exacerbated as they do not have the same opportunity as men in business contact and ownership (Byukusenge *et al*, 2016). Despite all development and organizational activities to ameliorate this, the gender gap in women's equality remains negligible (Loza, 2011). Yet women's entrepreneurship offers possibilities to counter this persistent challenge. According to Erika (2015), entrepreneurship is an important source of employment, and women involved in informal businesses are often self-employed in

small-scale retail. The nature and scale of enterprise growth and development are influenced and shaped by a range of traditional norms that are embedded in social, cultural and economic contexts (Filmer and Fox, 2014). These prevailing norms affect the ability of women entrepreneurs to function and prosper in comparison to their male counterparts. These inequalities tend to diminish women's aspiration economically and socially, and impact on women's enterprises to varying degrees (Welter *et al*, 2006).

2.2 The operation of GEEP in Nigeria

GEEP is a social intervention programme by the FGN to provide financial inclusion and access to micro-credit for Nigerians at the bottom of the economic pyramid (Adamgbe *et al*, 2020). The programme provides collateral and interest-free loans between 10,000– 350,000 naira to artisans, farmers, and traders across Nigeria. The programme is executed by the bank of industry (BOI) and every farmer, artisan, and trader in Nigeria is eligible for a GEEP loan. The loans are designed to provide credit to small businesses with a convenient repayment period of six months (FMHDS, 2018). Registrations are done by GEEP enumerators using a specialized app on tablets or smartphones only (no paper, no forms). The GEEP agents capture biodata, GPS location, and facial IDs of the trader and their businesses. The GEEP currently has over 4,000 agents in market clusters across Nigeria (Onah and Olise, 2019). It is a direct effort of the FGN through the BOI to break a multi-decade trend of economic growth without shared prosperity. This programme has been able to properly target and deliver credit to 2.3 million Nigerians with the ultimate goal being 20 million Nigerians by 2023 (Adamgbe *et al*, 2020).

2.3 Entrepreneurship development

The development of enterprises is generally perceived as a significant measure of success and a key driver to the creation of wealth, employment, and economic development in every country (Bosma *et al*, 2000). According to Dobbs and Hamilton (2007), the growth of enterprises is closely related to the creation of jobs and rapidly growing small businesses that create employment opportunities in societies, which is vital for the success of any economy. Women entrepreneurs make a substantial contribution to national economy especially in high growth businesses, which boost the economies of many nations (Erika, 2015). Despite recognition of women's entrepreneurialism, authors such as Galloway *et al* (2015) have identified culturally masculine ways in which entrepreneurship in development often plays out (Welter, 2013; Watson and Robinson, 2003). This aspect of entrepreneurship mirrors prevailing traditional norms identified above making it difficult for women as men are typically

seen as the ones who create development firms and lead businesses to financial success (Franco and Matos, 2013; Salia et al, 2017).

2.4 Women's entrepreneurship in Nigeria

Despite these gendered norms, according to, African Economic Outlook (2017), Nigeria has the highest number of women entrepreneurs in the world with over 41 million small and medium enterprises (SMEs) in the country with women constituting 40% of this number. Nevertheless, according to African Competiveness Report (2017), this high level of women's participation in entrepreneurship in Nigeria does not translate to better outcomes for a number of reasons. While it is estimated that globally, nine out of ten start-ups fail within three years thereby requiring accelerator programmes to avert such prompt closures, many women entrepreneurs in Nigeria are not fully operating at their peak because of discriminatory practices. These discriminatory practices against women lead to low productivity, limited entrepreneurship and leadership skills, inadequate training, inadequate management experience, lack of information, lack of strategies to develop financial literacy, limited access to external loans for business sustainability, and poor family support. As a result, women entrepreneurs in Nigeria experience business failures, early exit, stagnant growth, and low return on investment despite high participation rates (FGN, 2017; African Development Report, 2015; IMF, 2017).

2.5 Liberal feminist framings

Gender can critically shape the choices available to women and young people (Fawamba *et al*, 2015). In most African societies, women work more hours than men because they take care of the household in addition to any other labour market commitment (African Development Report, 2015). In some societies, women face pressure to marry early; and in others, young women may have to deal with pregnancy outside of marriage (Byukusenge, 2016). Gender disparities in entrepreneurship development are predominantly characterized by unequal access to resources (Loza, 2011). Pervasive inequalities, especially over resources limit women's contributions to household food baskets (Sarker, 2015). To help explain why female entrepreneurs should be encouraged to participate in entrepreneurship development we employ a liberal feminist theory, which argues for the necessity of social reform in order to give women the same status and opportunities as men (Fischer *et al*, 1993). The fundamental basis of liberal theory assumes that men and women are equal and rationally, no sex (gender) is the basis for any individual's rights. While advocating what should be, liberal feminist framing

acknowledges the existence of discriminatory barriers and systematic biases facing women; for example, restricted access to resources, education, business experience, ultimately arguing these biases must be eliminated (Ali, 2018). According to Unger and Crawford (1992), liberal feminism in the context of women's entrepreneurship posits that if women had equal access to the opportunities available to men such as education, work experience, and other resources, they would behave and benefit similarly.

At its core, liberal feminism argues for pragmatic reforms against gender discrimination through the promotion of equal rights by engaging and formulating laws and policies that will ensure equality (Watson and Robinson, 2003). It contends that society holds the false belief that women are, by nature, less intellectually and physically capable than men; thus it tends to discriminate against women in the academy, the forum, and the market place (Ahl and Marlow, 2012). Liberal feminist theory postulates that female subordination is rooted in a set of customary and legal constraints that blocks women's entrance to and success in the public world. Such constraints restrict women from striving for gender equality through political and legal reform (Sarri and Trihopoulou, 2005). These forms of gender discrimination are evident in Nigeria leading to business failure, early exit, stagnant growth, and low return on investment. While quantitative methodologies underpin the research, the findings are situated within liberal feminist perspectives.

3. Methodological Intervention

We adopted a quantitative research method to address the scarcity of quantitative studies on the Federal Government's NSIP, and especially on the GEEP intervention in Nigeria (FMHDS, 2018). Using a participatory field research approach, we generated cross-sectional data from a sample of the population. The cross-sectional data describes and interprets what exists at present in the country.

3.1.1 Sample size

The sample size determination formula developed by Cochran (1977) was used to obtain a sample size of 700 respondents in the rural communities of the Niger Delta region of Nigeria as shown in Equation 1.

$$\text{Sample size} = n_0 = \frac{z^2(PQ)}{e^2}$$

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

Therefore, we chose a confidence level of 95 percent, with 5 percent margin of error. The estimated population of women up to 45 years of age (which is the focus of this study) in Nigeria is about 65% of the total female population (Figure 1). Substituting the values in our equation, we have:

$$\begin{aligned}no &= \frac{1.96 \times 1.96 \times (.65 \times .35)}{.05 \times .05} \\no &= \frac{3.8416 \times .2275}{.0025} \\no &= \frac{.873964}{.0025} \\&= 349.60, \text{ approximately } 350.\end{aligned}$$

We then multiplied this number by two to further reduce the possible sampling errors. Hence our total sampling size was determined to be 700 respondents. We therefore decided to select a total of 1400 respondents. We selected 700 for treatment and another 700 for control because of the vastness of the area of study covering the six regions of Nigeria.

3.1.2 Selection of respondents

We selected participants in the survey using multi-staged sampling method. In stage one, we clustered States according to the six geopolitical regions of the country, to ensure comprehensive representation. In stage two, using purposive sampling, we selected one State from each of the geopolitical regions in accordance with a GEEP participation report released by the national social investment office in December 2020 (Adamgbe *et al*, 2020). Hence, we selected Borno State (North-East), Kogi State (North-Central), Kano State (North-West), Lagos State (South-West), Enugu State (South-East), and Rivers State (South-South). In stage three, three local government areas (LGAs) were randomly selected from each of the selected States to give a total of eighteen local governments that we studied. This selection was done to represent one LGA per senatorial zone for adequate representation. In stage four, we randomly selected two communities from each of the selected LGAs to give us a total of thirty-six communities that we studied. In the final stage, from the thirty-six communities, we engaged

the help of the community leaders to randomly select at least ten (10) and at most thirty-two (32) respondents (entrepreneurs) who have not applied for or received GEEP intervention. With this, we were able to select seven hundred (700) respondents (entrepreneurs) used as the control group. From records from the national social investment office, we also randomly selected and traced at least ten (10) and at most thirty-two (32) respondents (entrepreneurs) who have applied for and received GEEP intervention. This set of seven hundred (700) respondents was used as the target group. The distribution of respondents is in line with the sample size table below.

Table 1 Sample size selection table for women respondents².

States (Zones)	Women population	% of Women between 18- 45 years	% of total populatio n	Sample per state	Treatmen t	Contro l
Enugu	2,249,671	1,462,286	9%	130	65	65
Rivers	3,725,001	2,421,251	15%	216	108	108
Lagos	6,400,805	4,160,523	26%	368	184	184
Kano	6,669,215	4,334,990	27%	382	191	191
Borno	2,988,693	1,942,651	12%	174	87	87
Kogi	2,281,480	1,482,962	9%	130	65	65
		15,804,66				
	24,314,865	2	1	1,400	700	700

Source: FGN (2017)/ Authors' computation

Informed consent was an ethical imperative for this study. Hence, we made sure that all survey participants involved were fully informed about what the research questions were, and how the data generated would be used. Participants were also assured that there would not be any consequences for participating in the survey. Before the survey, we explained and agreed with the community leaders on who the researchers and research assistants were, the intention of our study, what data we would be collecting from participants, and how the data would be used and reported, as well as the potential risks of participating in the research. No respondent or participant was forced or coerced into taking part in this study. Anonymity and confidentiality of information was assured to the voluntary respondents.

²By women respondents, we mean women between the ages of 18 and 45 years of age.

3.2 Data

The data for the study was generated in September 2020 covering intervention periods between 2016 - 2019 and again in March 2021 to cover the 2020 intervention period. The data was generated using a structured questionnaire administered to the selected respondents. Based on this questionnaire, scores were assigned according to the major objectives of the study. The work highlights several proxies for enterprises' performance, such as the turnover, sales/turnover ratio, return on investment (ROI), value of production and other enterprise performance indicators.

Results for the periods before and after each intervention were administered to the target group.

3.3 Analytical technique

We achieved the first and second objectives of the study which are to ascertain the level of FGN investment in the GEEP intervention programme in Nigeria and to determine the spread of the GEEP intervention in line with the locations and ages across Nigeria respectively, with simple descriptive statistical tools. Similarly, inferential statistical tools were used to achieve objectives three which is to determine if GEEP interventions trigger positive changes on women's performance in entrepreneurship development in Nigeria. Hence, we measured the effect of GEEP on enterprise development of women with inferential statistical tools. To estimate the effect of the GEEP on enterprises' performance, we used a quasi-experimental difference-in-difference (DiD) analysis where we primarily evaluated the effect of GEEP, focusing on enterprise fixed effect and time fixed effect on the dependent variables. Having established from government records that GEEP significantly increases the entrepreneurship development of young women in mostly rural Nigeria, our data analysed the perspectives of women entrepreneurs to establish the mechanism through which this effect (if any) comes about. Through the DiD, we observed entrepreneurs before participating in the GEEP intervention, to check for the assumption of a parallel trend, as well as after accessing the interventions. For this reason, treated enterprises in our data only included those who participated in GEEP between 2015 and 2018. By doing this, we excluded late participants to ensure that the respondent had at least three years after accessing the intervention because of the length of time required for effective comparison. Hence, we obtained a sample of enterprises that had a minimum of three data points before accessing the GEEP and at least three data point afterwards (including the adoption year). The control enterprises were those

who had not accessed the GEEP intervention. Our estimation follows a standard DiD methodology, with staggered treatment with the standard equation stated as follows:

$$Y_{it} = \alpha + \beta GEEP_{it} + \varphi_t + \lambda_i + \mu_{it}$$

Where λ_i are firm fixed effects, and φ_t is a time fixed effect. GEEP is a dummy that switches on in the year of participation. The dependent variables in our case are either turnover, cost of goods sold, household expenditure, profit, value addition, debt, and RoI. We are interested in confirming the impact of GEEP, firm fixed effect and time fixed effects on the variables. In the latter case, we report results from the linear probability model, as it is effective to estimate a fixed effects model using this methodology. This equation can identify GEEP treatment's effect on the variables after participation, provided that the parallel trend assumption is satisfied. Therefore, to be able to ensure that the assumption holds, we estimated the following equation including the years both pre and post accessing GEEP.

$$Y_{it} = \alpha + \sum_{k=-3}^2 \beta GEEP_{it+k} + \varphi_t + \lambda_i + \mu_{it}$$

As in the previous equation, λ_i are firm fixed effects and φ_t is a time fixed effect, while the dependent variable remains same. $\beta GEEP_{it+k}$ is a dummy equal to 1 if the enterprise is k periods pre/post participation in period t . In this case, if there is no parallel trend, we expect the pre-participation dummies not to be statistically significant. Also, the significance of the post-participation dummies provides a first indication of the effectiveness of the intervention.

4. Results and Discussions

4.1.1 Descriptive analysis

The analysis of the respondents begins with a description of some of their social (education), demographic (age, marital status, household size) and economic (occupation, income) characteristic (Table 2). These characteristics are important in understanding the differences in the status of target group compared with the control group.

Table 2. Socio-economic characteristics of the respondents

Variables	Treatment Group			Control Group		
	Freq	%	Cum	Freq	%	Cum
Primary Occupation						
Fishing	45	6	6	68	10	10
Trading	294	42	48	246	35	45
Farming	211	30	79	231	33	78
Paid Employment	8	1	80	43	6	84
Handicraft	142	20	100	112	16	100
	700	100		700	100	
Age of Respondents						
Less than 20 years	84	12	12	68	10	10
21-25 years	98	14	26	121	17	27
26 - 30 years	126	18	44	115	16	43
31 - 35 years	140	20	64	98	14	57
36 - 40 years	77	11	75	65	9	67
41 - 45 years	63	9	84	99	14	81
46-50 years	63	9	93	58	8	89
Above 50 years	49	7	100	76	11	100
Level of Education						
None	57	8	8	82	12	12
FSLC	202	29	37	195	28	40
WAEC/WASSCE	273	39	76	302	43	83
Degree and above	168	24	100	121	17	100
	700	100		700	100	
Location of Respondents						
Urban	171	24	24	131	19	19
Semi Urban	201	29	53	161	23	42
Rural	328	47	100	408	58	100
	700	100		700	100	
Marital Status						
Single	222	34	34	226	32	32
Married	328	41	75	370	53	85
Widow	83	14	89	39	6	91
Divorced/Separated	67	11	100	65	9	100
	700	100		700		
Household Size						
1-4 Person	478	68	68	474	68	68
5-9 Person	185	26	95	154	22	90
10 and Above	37	5	100	72	10	100
	700	100		700	100	

Source: Authors' compilation based on household Survey.

Analysis (Table 2) shows that there is little difference in the socio-economic characteristics of respondents' from both the treatment and the control group. However, this finding points to

Filmer and Fox's(2014), understanding that in the context of rural urban migration, it is important to consider how policy making in cities may facilitate young women's employment, especially since higher women to men unemployment ratios are predominantly an urban phenomenon.

4.1.2 Level of FGN investment in the GEEP intervention programme in Nigeria.

According to FMHDS (2018), in 2018 the GEEP intervention programme has provided financial support and training to about 725,000 businesses at the bottom of the financial pyramid. On this note, about 683,000 loans were disbursed to individuals and about 42,000 to cooperatives in all the states of the federation combined. We analyzed the distribution of the loans to ascertain the FGN's investment and the spread. Using descriptive statistics, the results show (see Figure 1) that; only about 2% of GEEP participants have received financial assistance worth more than one hundred Nigerian Naira (₦100,000). Other results show that 46% received between ₦61,000 to ₦ 80,000, while 16% received ₦41,000 to ₦ 60,000, and 18% ₦81,000 to ₦ 100,000. While 12% received ₦21,000 to ₦ 40,000, only 6% have received just ₦1,000 to ₦ 20,000. This shows that the federal government has significantly invested in the intervention to boost decent job creation.

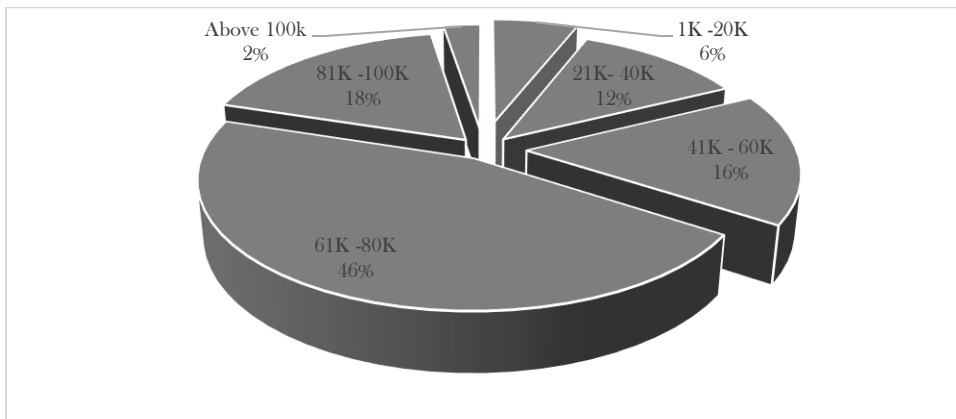


Figure 1. The distribution of the GEEP intervention recipient according to value of receipts.

Source: Author's compilation based on field survey.

4.1.3The spread of the GEEP intervention in line with the locations across Nigeria.

To answer the second research question, we analysed the spread of GEEP in line with the location of recipient enterprises and the result is presented in charts as follows:

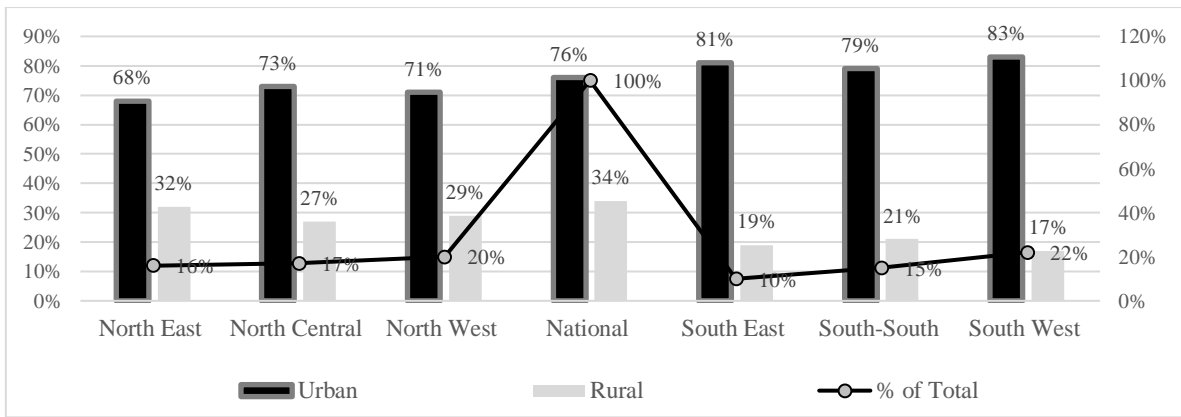


Figure 2. The distribution of the GEEP intervention recipient according to regions and location.

Source: Author's compilation based on field survey.

Analysis (Figure 2) suggests that the GEEP programme has adequate coverage across the geographical regions of Nigeria. However, further analysis shows that an average of 76% of the recipient are located in the urban centres while only 34% are in the rural communities. However, in African Development Review (2015), over 75% of the women live in the rural communities. This implies that, even though GEEP is well intentioned, large populations of the target group still have no access to the programme. The finding correlates with the IMF (2017), observation that sub-Saharan Africa boasts the world's highest rate of women entrepreneurs of small business with little opportunity for growth. Similarly, the African Competitive Report (2017) states that most female-led enterprises in sub-Saharan Africa tend to have no employees and have low growth expectations. But with the right incentives like improving the business environment and creating a level playing field for all sex, as suggested by liberal feminists (Ali, 2018), African women could excel and benefit greatly from the continent's burgeoning enterprises.

4.1.4 The spread of the GEEP intervention in line with the ages across Nigeria.

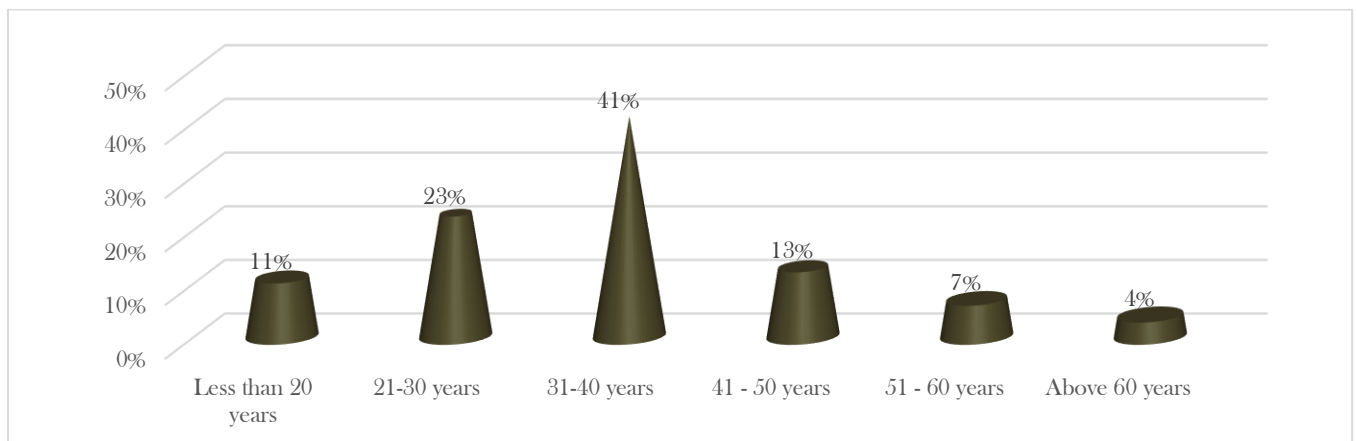


Figure 3. The distribution of the GEEP intervention recipient according to age across Nigeria.

Source: Author's compilation based on the record of the National Social Investment Office/ FMHDS (2018).

Analysis (Figure 3) shows that the majority of the women who accessed the GEEP intervention programme are in their highest active and productive ages. While about 84% are within the ages of 18 to 45 years; only about 16% are more than 45 years of which about 7% are above 50 years. Further breakdown shows that about 44% of the recipients are 30 years and below while, 49% are between the ages of 26-40 years. Others are about 12% who are below 21 years and another 14% between 21 – 25 years. This shows that about 64% of the recipients are between 21 to 40 years. The implication here is that the programme has been well spread to women that will actively make adequate use of it to enhance women's participation in economic, political and social for entrepreneurship development.

4.2.1 Estimating the impact of GEEP intervention on enterprises growth

To estimate the significance of GEEP intervention on enterprises (economic activities) between two periods, we arranged our observations as panel data set and ran a quasi-experimental DiD analysis. Table 2 reports results for the DiD estimation for gross profit. It includes only enterprises with positive gross profit and reports the effect of GEEP on the log of three variables that relate to gross profit. The first column shows the turnover of the enterprises that show an increase of 57% as a result of accessing GEEP intervention. The second column also reported cost of goods sold which increase proportionally but less than sales to the tune of about 20%. The net result is the gross profit which is still positive and approximately 40%. All these effects are statistically significant and economically large. Some degree of cost adjustment is expected when reported sales increase. This implies that the women who have accessed GEEP are likely to be out of poverty within a short period of time a little time and continuing GEEP with ongoing modification on the part of government means pulling more rural women out of abject poverty.

Table 3. The effect of GEEP on Gross Profit declaration: Annual data

	Turnover	Cost of sales	Gross profit
GEEP	0.570*** (0.027)	.193*** (0.069)	0.377*** (0.032)
Years fixed effect	Yes	Yes	Yes
Enterprise fixed effect	yes	yes	yes
Number of observations	1400	1400	1400
Number of firms	950	950	950
Adjusted R ²	.4	.3	.32

Standard errors in brackets

* Significant at 10%, ** Significant at 5%, *** Significant at 1%,

We also found a similar result for net profit as reported in Table 3. While turnover increase by about 27% because of participating in GEEP, the corresponding total cost (cost of goods sold and administrative cost) also increased by about 18%. This implies that net profit recorded about 9% increase. This shows that even though the net profit is qualitatively similar to the gross, it is smaller in magnitude. The GEEP, by increasing access to credit decreases per unit cost of production or procurement thereby enhancing the marginal profit made.

Table 4. The effect of GEEP on Net profit of the Enterprises

	Turnover	Total Cost	Net Profit
GEEP	0.275*** (0.012)	0.178*** (0.042)	0.097*** (0.014)
Years fixed effect	Yes	Yes	Yes
Enterprise fixed effect	yes	yes	yes
Number of observations	1400	1400	1400
Number of firms	950	950	950
Adjusted R ²	.14	.11	.065

Standard errors in brackets

* Significant at 10%, ** Significant at 5%, *** Significant at 1%,

Finally, we look at the probability of reporting positive return on investment, as well as turnover and costs for all the enterprises. Table 4 shows a positive effect of GEEP on all the variables for determining the return on investment. Table 5 shows increased probability of enhancing household expenditure and family welfare due to increase in net profit of the enterprises, while Table 6 points out the probability of reducing the debt of enterprises as a result of accessing the GEEP intervention. This implies that having reduced debt, women who have accessed GEEP are more equipped to demand their rights. Accessing funds to run businesses will reduce the dependency of women on their partners and would limit their vulnerability to violence from their partners.

Table 5. The effect of GEEP on return on investment (ROI)

	Total cost	Net Profit	ROI
GEEP	0.237*** (0.006)	0.122*** (0.006)	0.515*** (0.008)
Years fixed effect	yes	yes	yes
Enterprise fixed effect	yes	yes	yes
Number of observations	1400	1400	1400
Number of firms	950	950	950
Adjusted R ²	.04	.033	.041

Standard errors in brackets

* Significant at 10%, ** Significant at 5%, *** Significant at 1%,

Analysis (Table 5) shows that while the increase in total cost of the enterprises was about 20%, the net profit increased by 10% thereby increasing the return on investment by almost 50% due to GEEP interventions.

Table 6. The effect of GEEP on Household Expenditure: Annual data

	Turnover	Net Profit	Household Expenses
GEEP	0.275*** (0.005)	0.122*** (0.013)	0.134*** (0.043)
Years fixed effect	yes	yes	yes
Enterprise fixed effect	yes	yes	yes
Number of observations	1400	1400	1400
Number of firms	950	950	950
Adjusted R ²	.04	.033	.041

Standard errors in brackets

* Significant at 10%, ** Significant at 5%, *** Significant at 1%,

In our analysis of Table 6, we noted also that due to participation and accessing of GEEP interventions, the increase in turnover of the enterprises was about 30%, and the net profit increased by 10%. These increases therefore increased the probability of household expenditures of the entrepreneurs by approximately 10%.

Table 7. The effect of GEEP on the probability of reducing debt of the Enterprises

	Total Cost	Net profit	Debt
GEEP	0.237*** (0.004)	0.122*** (0.007)	-0.180*** (0.003)
Years fixed effect	yes	yes	yes
Enterprise fixed effect	yes	yes	yes
Number of observations	1400	1400	1400
Number of firms	950	950	950
Adjusted R ²	.079	.0037	.022

Standard errors in brackets

* Significant at 10%, ** Significant at 5%, *** Significant at 1%,

Analysis (Table 7) shows that while the increase in total cost of the enterprises was about 20%, the net profit increased by 10% and the debt of the enterprises reduced by approximately 18% as a result of participating in the GEEP interventions. Apart from adjustments regarding offsetting costs, the DiD results pointed out large increases in sales turnover as well as return on investment because of the introduction of GEEP intervention by the FGN. However, it is less clear whether these results are fully attributable to access to credit only or to proper business coaching and training in financial management. Analysis (Table 8) suggests that both played an active role, but that access to credit potentially plays a more substantial role.

Table 8. Treatment effects on turnover and COG: Main results

	(1) All	(2) Non-GEEP	(3) GEEP	(4) All
Treatment	0.189*** (0.078)	0.284*** (0.117)	0.017*** (0.100)	0.258*** (0.101)
GEEP participants				0.816*** (0.105)
Treat*GEEP				0.15* (0.076)
Observation	1400	700	700	1400

Standard errors in brackets

* Significant at 10%, ** Significant at 5%, *** Significant at 1%,

Analysis (Table 8) shows that overall, the target group had a positive and significant effect on the increase in turnover and reduced cost of goods sold of the enterprises, this is attributable to the availability and access to credit by the entrepreneurs 19% compared to the control group. Also looking at the sub-group of non-GEEP participators in (column 2), this effect increased almost to 29%, and become more significant showing that cost of production of those that participated reduced while their turnover increased. Therefore, GEEP participation and access to credit, created a higher percentage of reduction in marginal cost of goods sold as well as sales turnover of women entrepreneurs. Analysis (Table 8) shows that the treatment effects as regard to profitability and return on investment is high.

Table 9. Treatment effects on profitability and return on investment

	(2) All Enterprises	(3) Non-GEEP Enterprises	(4) GEEP Enterprises
Treatment	0.381 (0.111)	-0.032 (0.237)	0.352 (0.133)
GEEP participants	0.315* (0.107)		
Treat*GEEP	0.075 (0.077)		(0.076)
Observation	1400	700	700

Standard errors in brackets

* Significant at 10%, ** Significant at 5%, *** Significant at 1%,

The results in (Table 9) show that while the treatment effect on the GEEP enterprises increases profitability and return on investment by almost 35%, non-GEEP enterprises at the same time recorded almost 3.2% reductions for the same variables. This result combined with the increase in turnover and the reduction in cost of goods sold highlighted in the above analysis, are highly suggestive that the main mechanism behind the observed increase is an improvement in access to credit provided in the GEEP intervention as implemented by the federal government.

4.2.2 Robustness

We verified the robustness of our results in two ways. First, we re-estimate all our equations using monthly turnover data because we can disaggregate the annual data used into monthly data. This is important to ensure that what the rural women spend monthly does not outweigh their monthly earning. We recorded smaller coefficients which are qualitatively similar. The monthly turnover increases with also a corresponding but lower increase in the inputs (cost of goods sold). This therefore resulted in significant increases in monthly profitability.

Table 10. Treatment effects Profitability of enterprises.

	(1) All	(2) No-GEEP	(3) GEEP	(4) All
Treatment	0.066*** (0.016)	0.079*** (0.024)	0.055* (0.022)	0.072 (0.020)
GEEP participants				0.079*** (0.022)
Treat*GEEP				-0.012 (0.016)
Observation	1400	700	700	1400

Standard errors in brackets

* Significant at 10%, ** Significant at 5%, *** Significant at 1%,

Secondly with t-tests of equal means for turnover and cost of goods sold, we confirmed that GEEP participants are significantly higher in all the enterprises growth indicators measured, even though the magnitude of the difference is moderate. Finally, we checked if the results were affected by the size of the enterprises, by re-estimating the same equations without the top quartile in terms of turnover and adding controls for the size of enterprises. This was also repeated for the location of the enterprises and the results are qualitatively similar.

To ascertain the impact of GEEP on the basis of location of the enterprises, we noted that this may be because most of the enterprises are micro and small. When we ascertained whether the location of enterprises in rural areas impacts GEEP intervention, we found this to be significant. We noted that there is a positive impact of GEEP intervention on the efficiencies of economic activities of enterprises located in the rural communities. Hence, as the descriptive statistics shows that about 34% of the recipients are rural women with an average age of 29 years, we then infer from the result that, the enterprises managed by rural women in the rural communities that have benefited from the GEEP interventions did better than those managed by urban based women. The implication here is that, targeting rural women with interventions of this nature will go a long way in lifting many households out of poverty. This implies that, the women who have benefited from GEEP interventions are doing better than their counterparts who are yet to. This finding shared those of Ogundana *et al* (2021), in that while both male and female entrepreneurs face constraints such as lack of capital, women are specifically impacted by a number of obstacles, such as discrimination and the death of collateral. As a result, female owned enterprises post monthly profits that are lower than those of male-owned enterprises. The fact that rural women in Nigeria have less access to GEEP affects their ability to access loans and, in turn, impacts their participation in entrepreneurship development. This finding

supports the cause of liberal feminists (Unger and Crawford, 1992), in that it typically advocates for laws and regulations that promote gender equality and seek to eliminate practices that are discriminatory towards rural young women in particular.

Our findings mirror a similar study in Rwanda in Rwanda (Byukusenge *et al*, 2016), in that entrepreneurship is an important source of employment for Africans in rural areas; and women involved in informal business in the continent are often self-employed in small-scale retail. Additionally, our findings correspond to experiences in Bangladesh in that women (Sarker, 2015), in that women operate disproportionately in smaller firms, the informal sector and low value-added industries. Often however, this is due to capital constrains in their ability to grow and sustain their business. Our findings also resonate with Fawamba *et al* (2015) on women entrepreneurship in developing countries, in that women's limited access to capital translates into relatively low returns. However, in extension and contribution, our findings show that rural women entrepreneurs have lower start-up capital than their counterparts in urban areas through unequal distribution; as GEEP is more focused on cities. Rural women are less likely to access finance from GEEP resulting in performance disparities(in terms of sale levels and growth) between urban and rural women entrepreneurs. To further elucidate this assertion, the nature and scale of enterprise growth and development are influenced and shaped by a range of traditional norms that are embedded in social, cultural and economic contexts (Filmer and Fox, 2014);and these prevailing norms affect the ability of women entrepreneurs to function and prosper in comparison to their male counterparts; as these inequalities tend to diminish women's aspiration economically and socially, and impact on women's enterprises to varying degrees (Welter *et al*, 2006).

This finding highlights liberal feminist priorities (Ali, 2018; Ahl and Marlow, 2012; Fischer *et al*, 1993) in the context of women's entrepreneurship. If rural women had access to the opportunities of their urban counterparts relative to GEEP financing, they would benefit economically thus alleviating the necessity to migrate to cities for employment.

We contend that empowering rural women through entrepreneurship development would limit their vulnerability to violence from their partners and closing the gender gap in entrepreneurship development could equally be a powerful strategy in addressing violence against women and girls in sub-Saharan Africa. In other words, an inclusive structure of growth, anchored in employment and equal distribution of opportunities and income, would not only reduce poverty but also set the stage for accelerating future growth in Africa. Hence,

embracing adequate training, management experience, information and infrastructural development, financial literacy and good family support for women entrepreneurs, should form the foundation of GEEP practice in Africa; which in turn will mitigate discriminatory practices, low productivity, limited entrepreneurship and leadership skill, and lack of access to resources in the continent.

5. Conclusion and Policy Implication

We set out to assess the impact of the GEEP intervention on enterprise development for women in Nigeria. We developed an enterprise-level empirical analysis to evaluate the impact GEEP intervention has on enterprise performances, especially for both rural and urban communities in Nigeria. While analyzing the general impact of the programme, we also ascertained whether the location of an enterprise plays a major role on the impact of GEEP interventions in Nigeria. Results from the use of DiD indicates that the impact of GEEP is significant in both urban and rural areas; and that having an enterprise in the rural community does not hinder the impact rather, it appears to be a panacea to rural-urban migration especially among the rural women. However, the number of recipients located in rural communities is still significantly low. Our findings suggest that improving GEEP intervention to target more rural women will usher a significant improvement in inclusive empowerment in sub-Saharan Africa. This will also contribute positively to the needs of their communities; and deter the trafficking of women from rural communities to cities, for prostitution, street trading and exploitative domestic work.

There are a number of implications of this research. From the perspective of practice, it is obvious from the results that women's enterprise development in Nigeria can be improved through the GEEP programme. Therefore, a greater proportion of rural women need to make use of the programme to receive the associated benefits. The relevance of the study is premised on the importance of GEEP and how the benefits accruing from it can be leveraged by policy makers in order to provide an interface of entrepreneurship development between the government of Nigeria and rural women. The design and implementation of GEEP needs to be more focused on improving entrepreneurship and gender equality in rural communities in Nigeria. With respect to the implications of this finding, while the study has shown that GEEP has a crucial role to play in terms of bridging the gap of equal access to opportunities with the ultimate aim of boosting women's entrepreneurship in rural communities, it is also relevant to extend this study to undertake research that clarifies if GEEP can be used to enhance

complementary sources of capital in rural communities. However, the principal caveat of this research is its restricted scope to Nigeria. Therefore, the results of the study cannot be generalized to other African countries which are confronted with similar policy issues. Hence, replicating this study in the context of other countries in Africa in particular and the rest of the world in general is worthwhile for future research.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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Appendix

Variables descriptions

Variables	Definition
Gintv	A dummy variable that represent GEEP intervention. This is the main explanatory variable that will explain the changes in any of the dependent variable. The treatment group is the households that have received the GEEP intervention, and control group is households that has not
Yr	A dummy variable for the time difference. While year 0 is the period before GEEP intervention (pre-treatment), year 1 is after the intervention (post treatment period)
HhExp	This stands for the overall expenditure incurred by all household members for food and non-food items per capita per month
Profit	This is the approximate amount (in Nigeria Naira) of profit made after netting out all cost associated with the enterprises (economic activities) during a fiscal year(12 Months)
STover	This is the total estimated amount (in Nigeria Naira) generated by the household in the line of its economic activities by household members (including produce consumed by household). It is calculated for a fiscal year for 12 months
CoGsold	This is the approximate amount (in Nigeria Naira) of total expenses spent by the household for the economic activities during the fiscal years.
Debt	This is the total expenses not paid for, that is outstanding for the household to pay. It is calculated for the fiscal years.
RoE	This is the return on every kobo invested in the economic activities by the members of the household. It is calculated as the net profit divided by the equity contribution of the household member in the economic activities.
Vad	Value addition measures the value added in the economic activities of the enterprises in both the treatment and the control groups.