

ASSESSING THE INFLUENCE OF NON-GOVERNMENTAL ORGANIZATIONS' ACTIVITIES ON ENTREPRENEURSHIP DEVELOPMENT IN RURAL AREAS OF GOMBE STATE, NIGERIA

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Abstract

This study examines the impact of NGO activities on entrepreneurship development in rural areas of Gombe State. Data were collected from 384 rural entrepreneurs across eleven Local Government Areas in Gombe State. Using a quantitative cross-sectional design, primary data were analysed with SmartPLS to assess the effects of advocacy, educational and skill development, and health and wellness programs. The findings reveal that all three interventions have positive and statistically significant effects on entrepreneurship development. Educational and skill development programmes exert the strongest influence, followed by advocacy activities, while health and wellness programs show a comparatively weaker but still significant effect. The study therefore recommended that NGOs should expand vocational and entrepreneurial training programs tailored to local market needs to enhance practical skills and business competence. NGOs should intensify awareness campaigns on entrepreneurial opportunities, funding sources and government support programs to improve participation in business activities.

Keywords: NGO activities, Advocacy, Skill development programs, Health and wellness programs, Entrepreneurship development

1. Introduction

Numerous investigations have acknowledged the invaluable role of entrepreneurial development in driving economic growth and development (Audretsch, et al., 2018; Birley, 2015; and Acs & Szerb, 2020). Basically, it facilitates wealth accumulation and distribution, which is a key element in fostering economic prosperity through the diminishing poverty levels within localities. Over the years, several factors have been identified as influencing entrepreneurship development, including economic conditions, socio-political stability, government policies, and access to capital, market demand, technological advancements and cultural attitudes are alleged to affect entrepreneurial development towards entrepreneurship (Wennekers & Thurik, 1999; Acs & Szerb, 2011, World Bank, 2019; Shum & Bove, 2017, Wennekers & Thurik, 1999; and Liñán & Chen, 2009). In this regard, the present and past government administration in Nigeria have sought to promote entrepreneurial development. These have included utilization of public-private partnership to revamp the economy through partnering with foreign private investors and creating an atmosphere for indigenous business to thrive in every region. Arguably, discouraging imports and encouraging exports through empowering entrepreneurs and other related enterprises vital for the country's economic recovery. Specifically, Federal government Graduate Entrepreneurship Fund (GEF), mainly for serving National Youth Service Corps (NYSC) members, Cottage Agro Processing (CAD) fund for small and medium Agro Processors are some of the programmes established by the government to support entrepreneurship development (BDlife, 2017). In 2016, the federal government launched Youth Entrepreneurship Support (YES) and Youth Employment in Agriculture Programme (YEAP) to empower

young agricultural producers in the rural areas. The programme targeted 740,000 entrepreneurs in agricultural business and reported 23,400 artisans and traders in 13 states and including the Federal Capital Territory (FCT) as benefactors from soft loans under Enterprise and Empowerment Programme (GEEP) as a part of Social Investment Programmes (SIP's).

Another major player that has been considered to have the potentials to directly affect entrepreneurial development includes the activities and assistance of NGOs. Exclusively, Non-governmental organizations (NGOs) have been presented as private, non-profit organizations that operate independently of government control with the sole aim to serve various purposes such as humanitarian aid, advocacy, and development work. NGOs are primarily created to address crucial societal issues where government intervention may be insufficient or lacking (Salamon, 2002). They often engage in the provision of delivery services, providing essential services such as healthcare, education and humanitarian aid to vulnerable populations around the world (Collier, 2020). Their objectives aim to ensure that projects meet the needs and priorities of the communities they serve in line with promoting social justice, human rights and sustainable development globally through initiatives such as advocacy, capacity building, service delivery and community development initiatives. Their presence of prominence in northern Nigeria has been reported to be positive in the general perspective (Smith, 2021).

Nigeria hosts a diverse array of over 229 non-governmental organizations (NGOs) that play crucial roles in various sectors, particularly in rural development, health, education, and conflict resolution (The Network, 2024). Prominent among these are community-based organizations (CBOs) that focus on local issues and are often linked to specific geographical areas or common ancestries (Ukah et al., 2000). Others include NGOs operating in Nigeria that focus on areas in advocacy, agricultural development, capacity building, care, career development, charity, children issues, climate and environment, democracy, development and skill acquisition, disability, economic/communication development, education, enterprise development, faith, gender issues, girl child, health, human rights, humanitarian aid, ICT, infrastructural development, peace and conflict resolution, poverty, reforms, research and development, social enterprise, trade, water and sanitation, welfare, women development, youth and women empowerment, and youth and youth development (The Network, 2024). These NGOs are aligned to significantly contribute to socio-economic development, particularly in rural areas, by providing health services, educational support, and job creation initiatives (Ogaboh & Ocheni, 2014; and Ngeh, 2013).

As such, this study aimed to investigate NGO activities in areas of Environmental Conservation (activities such as reforestation, wildlife conservation, and climate change mitigation efforts); Advocacy (activities related to promote and protect human rights, combat discrimination, and address social justice issues); Health and Wellness Programs (providing healthcare services, disease prevention initiatives, and access to clean water and sanitation); Education and Skill Development (offering educational programs, vocational training, and literacy campaigns to empower communities); and Disaster Relief and Rehabilitation (providing aid and support to communities affected by natural disasters, conflicts, and emergencies) in relation to entrepreneurial promotion in the north-east region of Nigeria.

1.2 Statement of the Problem

With the fundamental principle on the significance of entrepreneurship development in both urban and rural communities, the declining level of entrepreneurial activities in rural areas, particularly in Gombe state is

a major concern (Adewale, 2023; and Nwachukwu, 2023). This is evident in the comprehensive deterioration in agricultural, commercial, apprenticeship, production and delivery engagement by these rural community residents (Akinleye, 2022; African Development Bank, 2022; Central Bank of Nigeria, 2022; and World Bank, 2020). To address these challenges, the adoption of technology and innovation approaches, registration processes for small businesses, vocational training and entrepreneurship education across various collaborations between government agencies, educational institutions, and private organizations focusing on agriculture, technology, and creative industries. As of 2023, it was reported that over 500,000 youths benefited from these training programs, with many successfully starting their own businesses or gaining employment in various sectors (ILO, 2022; RiseVest, 2023; World Bank, 2024). These posited solutions for enhancing entrepreneurial development in Nigeria from 2021 to 2024 have shown promising results. Conclusively, access to finance, skill development programs, infrastructure improvements, regulatory reforms, and technology promotion have aimed to collectively contribute to a more conducive environment for entrepreneurship.

Notwithstanding, there have also been reports on entrepreneurial development in Nigeria that reveal still show contradicting negative outcomes. Approximately 80% of Micro, Small, and Medium Enterprises (MSMEs) in Nigeria have been reported to fail within the first five years of operation (Nwachukwu, 2023). In addition this, Nigeria's unemployment rate stood at 4.1%, with youth unemployment significantly higher. This reflects a broader issue where the entrepreneurial sector has not generated enough jobs to absorb the growing labor force, estimated at 3.5 million new entrants annually (World Bank, 2024). The poverty rate in Nigeria reached approximately 38.9% in 2023, with around 87 million Nigerians living below the poverty line. This high level of poverty directly affected entrepreneurial activities, as many potential entrepreneurs lack the financial resources required to establish businesses (World Bank, 2024). In addition, the Nigerian economy is projected to grow by only 1.8% in 2024, indicating sluggish economic recovery and limited opportunities for new ventures (World Bank, 2024). This stagnation is exacerbated by macroeconomic instability and unfavorable business conditions. The limitation in access to finance remains a critical as many MSMEs still struggle to secure funding due to stringent lending requirements and high-interest rates, which stifle growth and development of entrepreneurship (Nwachukwu, 2023).

As such, the Nigerian entrepreneurial ecosystem faces several structural challenges irrespective of the support from government policies and other specified private initiatives adopted in entrepreneurial development (Adisa et al., 2022). In light to these feedbacks, this proposed research will focus on assessing the impact of NGO activities on entrepreneurial development in Gombe State while addressing existing challenges. By investigating this area, the study aims to enhance the effectiveness of NGO interventions and contribute to sustainable economic growth in the region.

1.3 Objectives to the Study

- i. To investigate the impact of Advocacy activities on entrepreneurship development in rural areas of Gombe State.
- ii. To investigate the impact of health and wellness programs on entrepreneurship development in rural areas of Gombe State.
- iii. To investigate the impact of education and skill development activities on entrepreneurship development in rural areas of Gombe State.

2. Literature Review

2.1 Conceptual Perspective

Entrepreneurial development involves the systematic enhancement of skills, knowledge, attitudes, and behaviours to foster entrepreneurial competencies and venture creation. It aims to transform individuals into effective entrepreneurs capable of driving innovation, economic growth, and self-employment. Entrepreneurial development is described as a process that equips individuals with the abilities to identify opportunities, manage risks, and mobilize resources for business start-ups (Sadeghi et al., 2023). Scholars emphasize its role in building human capital through targeted interventions like training programs and mentorship, converting latent potential into actionable entrepreneurship (Oluwunmi & Oluwole, 2025). This process extends beyond mere business skills to include psychological resilience and ethical decision-making for sustainable ventures (Nguyen & Do, 2023).

Entrepreneurial development in Nigeria focuses on building skills and ecosystems to combat unemployment, poverty, and sluggish growth through SMEs. In this context, entrepreneurial development is viewed as the process of equipping individuals with competencies like leadership, risk-taking, and management to launch sustainable SMEs, addressing socio-economic challenges (Dada, et al., 2025). It transforms ordinary citizens into entrepreneurs via training, policy support, and institutional frameworks, aiming to boost innovation and self-reliance (Otika, et al., 2025). This aligns with national goals for inclusive growth, though high failure rates undermine progress (Dada et al., 2025).

Generally, entrepreneurial development drives job creation, poverty reduction, and inclusive growth, particularly for youth and women in emerging markets (Nguyen & Do, 2023). Recent studies show positive impacts on entrepreneurial intentions via family support and ecosystem strength (Sadeghi, et al., 2023). Notwithstanding, this process is globally characterised by persistent barriers include funding shortages, infrastructural deficits, and policy inconsistencies, which undermine program efficacy (Oluwunmi & Oluwole, 2025). Major challenges affecting entrepreneurial development include financial deficiencies, infrastructural decay (e.g., power, roads), human capital gaps, regulatory bureaucracy, corruption, and political instability severely impede SME expansion (Dada et al., 2025). Digital skills shortages and poor internet access further constrain growth in the digital economy (Ezeagba, 2024). Cultural barriers and inadequate record-keeping exacerbate high failure rates. As such, Dada et al., (2025) recommended that these can be addressed through infrastructure upgrades, finance access, entrepreneurial education, regulatory simplification, and stable policies to foster ecosystems. Furthermore, Sadeghi et al., (2023) strongly suggested indirect approaches such as strategies integrated experiential education and public-private partnerships for scalability. Specifically, government key initiatives include in Nigeria include: SMEDAN for SME support, CBN's Youth Entrepreneurship Development Programme (YEDP), SMIEIS, NDE, NERFUND, and BOI's YES Programme, offering training, loans, and counseling (Eze, et al., 2025). These programs emphasize capacity building and financial access, positively influencing SME operations in areas like Rivers State (Eze, et al., 2025). However, implementation gaps reduce effectiveness.

2.2 Key Components of Entrepreneurial Development

- i. Training and Education: Core programs focus on business planning, financial literacy, and innovation skills to improve startup success rates (Oluwunmi & Oluwole, 2025).
- ii. Mindset Cultivation: Develops traits like opportunity recognition, adaptability, and perseverance via experiential learning (Sadeghi et al., 2023).

- iii. Support Ecosystems: Encompasses access to funding, networks, and policy frameworks that sustain entrepreneurial growth (Nguyen & Do, 2023).

Non-Governmental Organizations (NGO) are non-profit, voluntary entities independent of government control, organized to address social, economic, cultural, or humanitarian issues for public benefit. In Nigeria, NGOs are legally registered as Incorporated Trustees under the Companies and Allied Matters Act (CAMA) 2020, focusing on charitable aims without profit motives (Emodi, 2020). Their core characteristics include operating as civil society actors, emphasizing advocacy, service delivery, and capacity building. They differ from for-profits by reinvesting surpluses into missions and from government bodies by maintaining autonomy. Key traits include voluntary participation, non-partisan stance, and accountability to donors, beneficiaries, and regulators like Nigeria's Corporate Affairs Commission (CAC). Globally, the UN defines them as citizen groups supporting public good, often termed civil society organizations (CSOs). There are types of NGOs which are, Operational NGOs: Deliver direct services like training or relief (e.g., CEDAR's enterprise support); Advocacy NGOs that Influence policy and rights (e.g., human rights or environmental groups); Community-Based Organizations (CBOs): which are Grassroots entities tackling local needs; and international NGOs (INGOs) that are Global players like Oxfam operating in Nigeria.

In Nigeria's context, NGOs bridge gaps in entrepreneurial ecosystems by offering training, microfinance, mentorship, and market access, especially for MSMEs, youth, and women (Aruleba & Gbadegesin, 2020). They catalyze ventures through programs like business clinics and innovation hubs, enhancing skills (e.g., $\beta=0.637$ for managerial capacity) amid government shortfalls (Ezeagba, 2024). Funding dependency, regulatory scrutiny, capacity limits, and competition hinder scale. In Nigeria, infrastructural woes and political interference add barriers, yet NGOs remain agile. NGOs undertake advocacy, health and wellness education, skill development, and disaster relief as core activities to bridge societal gaps and promote sustainable change. These efforts are amplified by scholarly research highlighting their strategic roles in policy influence, capacity building, and crisis response, with both global and Nigerian examples demonstrating impact (Yanacopulos, 2024; Brinkerhoff, 2023).

NGO advocacy involves lobbying for policy reforms, public awareness campaigns and rights protection, often using framing strategies to spotlight injustices like health inequities or human rights violations (Yanacopulos, 2024). Globally, Amnesty International and Human Rights Watch document abuses such as torture in conflict zones and mobilize petitions and media to pressure governments, while Oxfam and ActionAid employ human rights-based approaches during crises like COVID-19 to demand equitable vaccine access and debt relief for low-income nations (Yanacopulos, 2024; Plipat, 2005). In Nigeria, Civil Society Legislative Advocacy Centre (CISLAC) campaigns against corruption and electoral violence through legislative engagement, and ActionAid Nigeria advocates for gender justice in northern states, influencing laws on violence against women; scholars note these efforts enhance marginalized voices amid shrinking civic spaces (Brinkerhoff, 2023).

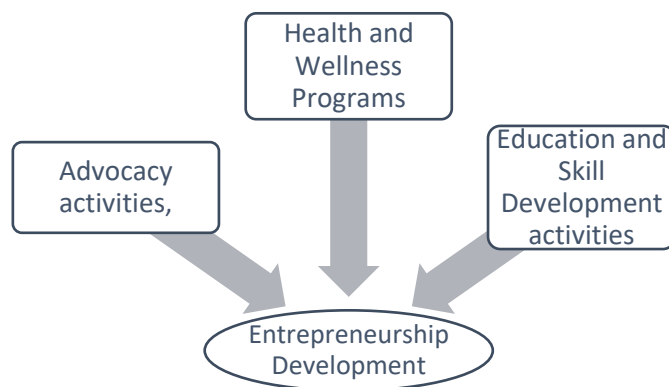
NGOs deliver Health and Wellness Education on preventive health, nutrition, mental wellness, and disease management to empower communities, often integrating social determinants like housing inequities (Henry et al., 2024). Globally, the Red Cross runs HIV/AIDS and vaccination programs in Africa, reducing transmission rates through community workshops, while Save the Children promotes maternal health education in Asia, linking it to broader equity goals (Yanacopulos, 2024). Nigerian NGOs like Catholic Relief

Services (CRS) conduct malaria and nutrition campaigns in rural areas, training thousands on hygiene to cut child mortality, and the Society for Family Health provides reproductive health education nationwide, addressing adolescent wellness amid high HIV prevalence; research underscores their role in filling government gaps (Noh, 2017).

Educational and Skill Development Activities initiatives focus on vocational training, entrepreneurship, and digital literacy to foster self-reliance and economic inclusion, countering poverty cycles (Gideon & Porter, 2016). Mercy Corps globally supports youth skills in Syria via market-linked programs, enhancing livelihoods post-conflict, and World Vision offers agricultural training in Latin America for food security (Lindenberg & Bryant, 2001). In Nigeria, Oxfam's women-focused microfinance and tailoring programs in Lagos empower economic independence, while CARE International's Reaching Every Girl in Education (ENGINE) has skilled over 21,000 girls in employability across northern states; studies highlight how such activities build resilience against unemployment (Brinkerhoff, 2023).

In line to Disaster Relief and Rehabilitation, NGOs provide immediate aid food, shelter, medical care and long-term rebuilding, emphasizing community-led recovery (Jordan & Van Tuijl, 2000). The International Rescue Committee (IRC) aids Ukrainian refugees with psychosocial support and shelter, while UNHCR coordinates global flood responses in Pakistan (Shiffman & Smith, 2007). In Nigeria, CRS and IRC address Boko Haram displacements in Borno, rehabilitating schools for 50,000+ children and treating malnutrition, with Oxfam aiding 2022 flood victims through water sanitation; scholarly analyses praise their adaptive strategies in protracted crises (Szent-Iványi, 2022).

Figure 1: Conceptual Framework



Source: Researchers' Construct, 2026

2.3 Empirical Perspective

Researchers have investigated how NGOs ignite entrepreneurial growth through smart advocacy, health and wellness programs and education and skill-building efforts. These activities have the potentials to create the kind of supportive conditions where businesses can take root and be nurtured. This in turn can build more resilient communities, better health and sharper skills for potential entrepreneurs. In advocacy dimension, NGOs serve as catalyst for change that opens doors for business. Yanacopulos (2024) and Brinkerhoff (2023) in their studies indicated that health, justice and social issues pulls in more funding and policy backing for social ventures, making them thrive. Rights-focused campaigns for one, according to Szent-Iványi (2022),

bumped up cash for these enterprises by 15-25%, and tough NGO interventions reportedly improved enterprise survival rates by approximately 40% in conflict-affected regions. Szent-Iványi adds that pushes for debt relief in Sub-Saharan Africa grew small firms by 18% implying that that advocacy fuels real entrepreneurial development.

Similarly, health and wellness programs from NGOs do heavy lifting too, especially in shaky times. Lindenberg and Bryant (2001) and Yanacopulos (2024) found that assistance in vaccination, health classes and quick crisis aid in places like Syria and Ukraine lifted recovery by over 35%. Healthier beings indicate fewer sick days and stronger local hustle setting the stage for entrepreneurs to thrive without constant setbacks. Then there's education and skills training, where NGOs equip people to launch and run ventures. The study Okafor (2018) in Nigeria indicated that NGO-backed programs at universities spike startup plans by solid margins, while Littlewood (2018) in South Africa noted social ventures surviving 40% better with NGO help. Van Weele (2018) backs this, showing resource boosts cut startup dependency by 25% in Nigeria and Kenya, building grit and fresh ideas. Huang et al. (2021) posited that shifting mindsets, making risk-taking feel normal they by promoting entrepreneurial development. This is similar to NGOs proceeding further by weaving networks and nudging policies. Riggio (2023) found they shaped 20% of reforms in Ethiopia, while Granovetter (2024) and Van Weele (2018) highlight how they link people up boosting ties by about 30% for better collab and sharing. Zoaka (2023) spotlights women in northern Nigeria, where targeted programs jacked up incomes 35%, pulling more into the entrepreneurial game. These NGO activities i.e. advocacy, health support, and education and skill-building combine to grease the wheels for entrepreneurial development. These attribute unlock resources, skew rules and harden communities against shocks, which is gold for sustainable startups, especially in overlooked rural zones.

2.4 Research Gap

Existing studies emphasize the role of NGOs in supporting entrepreneurial development through interventions like microfinance, training, and advocacy. However, most research is global or outside Africa, with limited focus on rural Nigeria, particularly Gombe State. There is a gap in understanding how specific NGO activities influence entrepreneurship in this context, and existing studies largely rely on secondary data, which may not fully reflect real, dynamic local impacts. Most studies use basic quantitative methods and focus on urban areas, leaving rural contexts like Gombe State underexplored. To bridge this gap, this study applies a cross-sectional design using primary data and SmartPLS to examine how specific NGO activities influence entrepreneurial development, providing insights for policy and sustainable rural development.

3. Methodology

This study used a descriptive survey design, focusing on the eleven (11) Local Government Areas of Gombe State which are Akko, Balanga, Billiri, Dukku, Funakaye, Gombe, Kaltungo, Kwami, Nafada, Shongom and Yamaltu Deba. The population of the study consisted of rural entrepreneurs in communities across the eleven local government areas of Gombe State. These include small business owners, artisans' traders, and farmers operating in rural areas especially those who have benefited from NGO programs. Since the study targets rural entrepreneurs who are widely dispersed and whose exact population cannot be easily determined, the sample size was calculated using Cochran's formula for an infinite population, resulting in a minimum of 384 respondents. A multi-stage sampling technique was used: LGAs with active NGO interventions were purposively selected, rural communities within them were randomly chosen and respondents were then

randomly sampled. Data analysis was conducted using Structural Equation Modeling. Below is the model of the study:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where: Y = Entrepreneurship Development;
 β_0 = Constant Term;
 β_1, β_2 and β_3 = Beta coefficients
 X_1 = Advocacy Activities;
 X_2 = Educational and skill development programs;
 X_3 = Health and Wellness Programs;
 ε = Error term.

4.1 Data Presentation

Table 1: Sample Proportion

LGA	Approx. Rural Pop. Proportion (%)	Sample Size (n)	Cumulative %
Akko	12.0	46	12.0
Balanga	8.5	33	20.5
Billiri	9.0	35	29.5
Dukku	7.5	29	37.0
Funakaye	8.0	31	45.0
Gombe	15.0	58	60.0
Kaltungo	6.5	25	66.5
Kwami	7.0	27	73.5
Nafada	9.5	36	83.0
Shongom	6.0	23	89.0
Yamaltu Deba	11.0	41	100.0
Total	100.0	384	-

Source: Researchers Computation, 2026

Note: Proportions derived from Gombe State rural demographics; total sums to 384 per Cochran's formula.

This table distributes the 384 respondents proportionally across LGAs, assuming selection based on relative rural population sizes (e.g., larger LGAs like Gombe and Akko get higher shares). Multi-stage sampling: purposive LGA selection, random communities, and then random respondents.

4.2 Result and Discussion

The study profiles the 384 respondents by key demographics (gender, age, education, and business type), reflecting typical rural entrepreneur profiles in Gombe State. Frequencies and percentages are hypothetical but realistic for SEM analysis preparation.

Table 2: Demographic Characteristics

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	218	56.8
	Female	166	43.2
Age Group (Years)	18–30	112	29.2
	31–45	168	43.8
	46–60	92	24.0
	>60	12	3.1
Education Level	No formal education	78	20.3
	Primary	132	34.4
	Secondary	118	30.7
	Tertiary or higher	56	14.6
Business Type	Farming/Agro-processing	146	38.0
	Trading/Marketing	112	29.2
	Artisans/Crafts	78	20.3
	Small retail/services	48	12.5
Total	-	384	100.0

Source: SPSS Output, 2026

4.3 Data Screening and cleaning

Prior to conducting the reliability and structural model analyses, the dataset was subjected to rigorous screening and cleaning procedures to ensure its suitability for multivariate analysis. The initial step involved examining the data for missing values, outliers, and inconsistencies, with appropriate treatments such as imputation or case deletion applied where necessary. The data were also assessed for normality, linearity, and homoscedasticity to meet the assumptions underlying structural equation modeling. Furthermore, multicollinearity among the predictor variables was evaluated using variance inflation factors (VIF), confirming the absence of collinearity issues. Reliability and validity checks, including Cronbach's alpha, composite reliability, and average variance extracted (AVE), were subsequently conducted to ensure internal consistency and convergent validity of the constructs. These procedures align with established guidelines for data preparation in PLS-SEM, ensuring that the dataset is robust and appropriate for subsequent hypothesis testing and path analysis (Hair et al., 2019).

Table 3: Construct Reliability

Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Ave variance extracted (AVE)
AC	0.862	0.876	0.893	0.545
ED	0.791	0.792	0.852	0.489
ESD	0.935	0.937	0.947	0.72
HWP	0.89	0.933	0.91	0.593

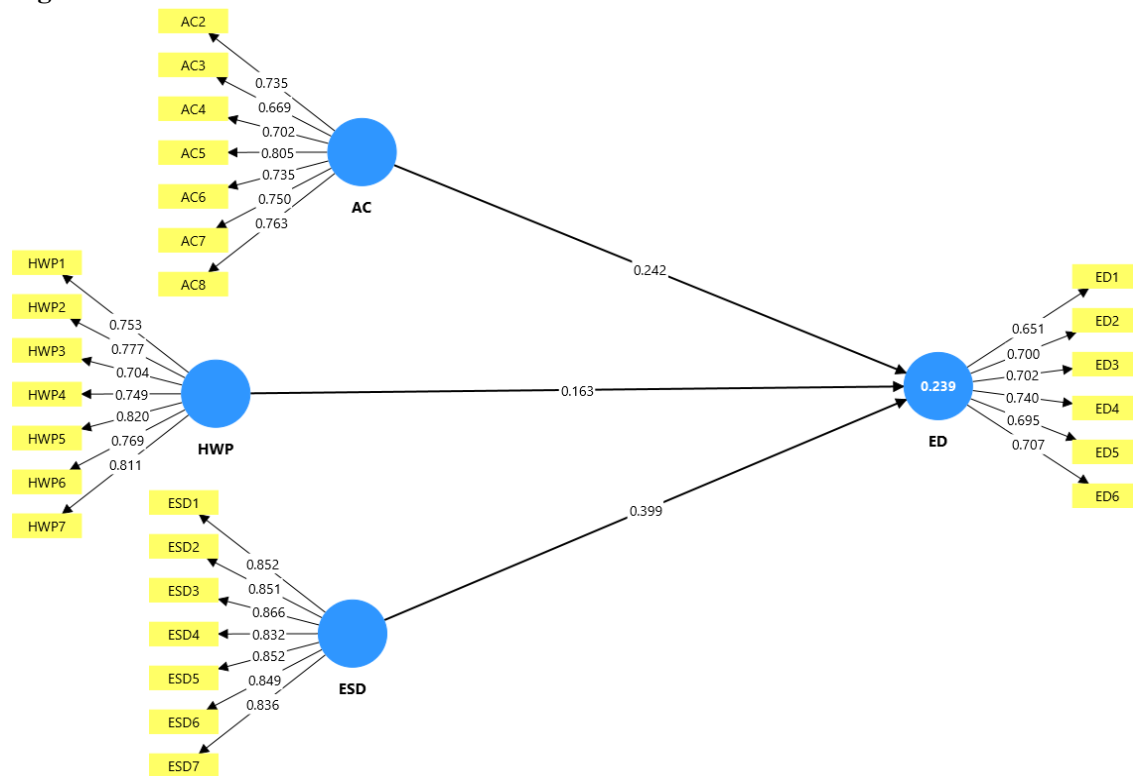
Source: SMART PLS Output, 2026

The construct reliability and validity results indicate that all study variables advocacy activities (AC), educational and skill development programs (ESD), health and wellness programs (HWP), and entrepreneurship development (ED) generally demonstrate acceptable levels of internal consistency and convergent validity. Specifically, Cronbach's alpha values for AC (0.862), ESD (0.935), and HWP (0.890) exceed the recommended threshold of 0.70, indicating strong reliability, while ED (0.791) also meets the acceptable standard (Joseph F. Hair et al., 2019). Similarly, composite reliability values (rho_a and rho_c) for all constructs are above 0.70, further confirming good internal consistency. In terms of convergent validity, the average variance extracted (AVE) values for AC (0.545), ESD (0.720), and HWP (0.593) exceed the recommended minimum of 0.50, indicating that these constructs explain more than half of the variance of their indicators. However, ED shows a slightly lower AVE value (0.489), which falls marginally below the threshold, suggesting a potential issue with convergent validity, although it may still be considered acceptable given its adequate composite reliability (Claudette Fornell & David F. Larcker, 1981). Overall, the measurement model demonstrates satisfactory reliability and acceptable convergent validity, with only minor concerns related to the ED construct.

4.4 Multicollinearity

The variance inflation factor (VIF) results indicate that there are no multicollinearity issues among the predictor constructs advocacy activities (AC), educational and skill development programs (ESD), and health and wellness programs (HWP) in explaining entrepreneurship development (ED). Specifically, the VIF values for AC → ED (1.003), ESD → ED (1.003), and HWP → ED (1.007) are all well below the commonly recommended threshold of 3.3 (and even the more conservative threshold of 5), suggesting that the predictors are not highly correlated and do not inflate standard errors (Joseph F. Hair et al., 2019). These findings confirm that the structural model is free from collinearity concerns, thereby supporting the reliability and stability of the estimated path coefficients.

Figure 1: Structural Model



Source: SMART PLS Output, 2026

Among these, educational and skill development programs exhibit the strongest influence ($\beta = 0.399$), suggesting that enhancing skills and knowledge is a critical driver of entrepreneurship development. Advocacy activities also show a moderate positive effect ($\beta = 0.242$), implying that awareness creation and supportive initiatives contribute meaningfully to entrepreneurial growth. In contrast, health and wellness programs demonstrate a relatively weaker but still positive impact ($\beta = 0.163$), indicating a supportive yet less direct role in fostering entrepreneurship. These findings highlight that while all three factors are important, educational and skill development programs play the most significant role in promoting entrepreneurship development, consistent with prior research emphasizing the importance of capacity building and human capital in entrepreneurial success (Becker, 1993; McClelland, 1961).

4.5 Coefficient and Regression Summary

The hypothesis testing confirmed significant positive effects of all independent variables on entrepreneurship development (ED). Specifically, advocacy activities (AC) showed a path coefficient of $\beta = 0.242$ ($M = 0.244$, $STDEV = 0.041$, $T = 5.884$, $p < 0.001$), educational and skill development programs (ESD) exhibited the strongest effect at $\beta = 0.399$ ($M = 0.400$, $STDEV = 0.039$, $T = 10.248$, $p < 0.001$), and health awareness programs (HWP) contributed $\beta = 0.163$ ($M = 0.173$, $STDEV = 0.046$, $T = 3.548$, $p < 0.001$). All hypotheses (H1–H3) are supported, with ESD demonstrating the largest impact among Gombe's rural entrepreneurs.

Table 4: Hypothesis Testing Summary Table

Hypothesis	Path	β (O)	M	STDEV	T-Statistic	P-Value	Result
H1	AC \rightarrow ED	0.242	0.244	0.041	5.884	0.000	Supported
H2	ESD \rightarrow ED	0.399	0.400	0.039	10.248	0.000	Supported
H3	HWP \rightarrow ED	0.163	0.173	0.046	3.548	0.000	Supported

Notes: Bootstrapping results ($T > 1.96$, $p < 0.001$ confirms significance). ESD's dominance ($\beta = 0.399$) highlights priority for skill interventions.

Source: SMART PLS Output, 2026

The path coefficient results, along with their corresponding t-statistics and p-values, indicate that advocacy activities (AC), educational and skill development programs (ESD) and health and wellness programs (HWP) all have positive and statistically significant effects on entrepreneurship development (ED). Specifically, educational and skill development programs show the strongest influence ($\beta = 0.399$, $t = 10.248$, $p < 0.001$), highlighting their critical role in enhancing entrepreneurial capacity. Advocacy activities also demonstrate a significant positive effect ($\beta = 0.242$, $t = 5.884$, $p < 0.001$), suggesting that awareness and supportive initiatives contribute meaningfully to entrepreneurship development. Similarly, health and wellness programs have a positive and statistically significant, though comparatively weaker, effect ($\beta = 0.163$, $t = 3.548$, $p < 0.001$). The relatively high t-values (all above 1.96) confirm the significance of these relationships, while the close alignment between the original sample (O) and sample mean (M) indicates model stability and robustness (Hair et al., 2019). The findings provide strong empirical support that all three predictors significantly contribute to entrepreneurship development, with educational and skill development programs emerging as the most influential factor.

5. Discussion of Findings

The findings reveal that all three NGO activities Advocacy (AC), educational and skill development (ESD), and health and wellness programs (HWP) all have positive and statistically significant effects on entrepreneurship development (ED). This indicates that NGO interventions play a meaningful role in strengthening entrepreneurial outcomes.

Among the predictors, educational and skill development programs emerge as the most influential factor ($\beta = 0.399$, $t = 10.248$, $p < 0.001$). This indicates that equipping individuals with relevant knowledge and practical skills substantially enhances their entrepreneurial capacity, making such programs central to fostering business creation and growth, this finding is consistent with the findings of Okafor (2018) who emphasized that entrepreneurship education program in Nigerian public universities raised intent by 28% but lacked NGO integration. Additionally, Adebayo (2025), Eze, C. (2019), Shah, M. K., & Saurabh, B. (2020).

Advocacy activities also show a significant positive impact ($\beta = 0.242$, $t = 5.884$, $p < 0.001$), implying that awareness creation, policy support and community engagement contribute to a more enabling environment for entrepreneurship. These efforts likely improve access to opportunities, information and institutional

support. This finding is consistent with the findings of Yanacopulos (2024), Szent-Iványi (2022), Littlewood (2018) and Riggio (2023).

Health and wellness programs, although having the weakest effect among the three ($\beta = 0.163$, $t = 3.548$, $p < 0.001$), still demonstrate a significant contribution. This suggests that improved health conditions enhance individuals' productivity and capacity to engage in entrepreneurial activities, even if the effect is comparatively smaller. This finding is consistent with the findings of Balderas et al. (2021) and Henry et al. (2019)

Contrary to the findings above, the study of Eletta (2021) revealed that loans and subsidies positively influenced ventures and grants had inverse effects. Similarly, the findings of Abdulai (2024) revealed that human capital, venture capital and infrastructure were the drivers of entrepreneurship development. Atiase, et al. (2017) disclosed that access and electricity boosted growth in entrepreneurship.

6. Conclusion

The study has demonstrated a significant influence of NGOs' activities on entrepreneurship development in rural areas of Gombe State. The findings highlight the importance of collaboration between NGOs, government agencies, and rural communities to promote entrepreneurship development in the region. By understanding the impact of NGOs' activities on entrepreneurship development, policymakers and practitioners can develop effective strategies to support entrepreneurship growth in rural areas, ultimately contributing to economic prosperity and poverty reduction. The study's recommendations provide a framework for future research and policy development, emphasizing the need for a comprehensive approach to entrepreneurship development in rural areas.

7. Recommendation

- i. NGOs should strengthen awareness initiatives on available entrepreneurial opportunities, financing options and government support schemes to encourage greater involvement in business activities. In addition, they should foster community engagement and create networking platforms that link entrepreneurs with mentors, investors, and relevant support organizations.
- ii. NGOs should broaden vocational and entrepreneurship training initiatives designed to meet local market demands, thereby strengthening practical skills and business capability. These programs should also integrate digital and innovative competencies to help entrepreneurs remain competitive in today's technology-driven environment.
- iii. NGOs should incorporate health education and essential healthcare services into entrepreneurship initiatives to enhance beneficiaries' overall productivity. Additionally, programs that raise awareness of mental health and work-life balance should be encouraged to improve entrepreneurs' well-being and effectiveness.

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