



Influence of Entrepreneurial Behaviour of Rural Youth and Livelihood Activities in Akwa Ibom State, Nigeria

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HIGHLIGHTS

- Canonical correlation analysis showed a significant association between entrepreneurial behaviour dimensions i.e. persistence, hope of success, risk-taking and feedback usage and key livelihood activities.
- Rural youth exhibited high self-confidence and persistence, but lower scores in innovativeness, persuasibility and hope of success, revealing strengths in internal motivation but weaknesses in creativity and social influence.
- Entrepreneurial traits significantly shape livelihood choices among rural youth in Akwa Ibom State. Enhancing behavioural competencies through tailored capacity-building, mentorship and entrepreneurial training can enhance sustainable livelihoods and rural economic resilience.

GRAPHICAL ABSTRACT

Influence of entrepreneurial behaviour of rural youth



ABSTRACT

Context: This study examined the influence of entrepreneurial behaviour on livelihood activities among rural youth in Akwa Ibom State.

Objectives: Specifically, it examined the level of entrepreneurial behaviour among rural youth and the effect of entrepreneurial behaviour on the livelihood activities of rural youth.

Methods: A multistage sampling technique was used to select 185 respondents from six LGAs in the state. Data were collected using structured questionnaires and were analysed using descriptive statistics and Canonical Correlation Analysis (CCA).

Results: The findings revealed that small business activities (mean = 2.87), crop farming (mean = 2.78) and livestock rearing (mean = 2.72) were the dominant livelihood activities among rural youth. Key entrepreneurial traits like self-confidence (mean = 3.0), persistence (mean = 2.9) and achievement motivation (mean = 2.7) were moderately expressed, while innovativeness (mean = 2.3) and persuasibility (mean = 2.4) were weak. Canonical correlation analysis showed a strong, significant relationship between entrepreneurial behaviour and livelihood activities ($R_c = 0.79$, $p < 0.01$). Persistence and hope of success were linked to crop and livestock farming, risk-taking and feedback usage influenced small business and fishing, while knowledgeability was associated with migration/remittances. These findings highlight the need to strengthen entrepreneurial competencies to support sustainable rural livelihoods.

Significance: Based on the findings, it was recommended that training programs be introduced to improve weak traits like innovativeness, hope of success and persuasibility, while policies should support entrepreneurial education, mentorship and access to business support services.

Keywords: Persuasibility, Knowledgeability, Entrepreneurial behaviour, livelihood activities, rural youth, Akwa Ibom State.

Youth entrepreneurship has emerged as a strategic avenue for addressing poverty, unemployment and economic inequality, particularly in developing countries where formal employment opportunities are limited (Adeniyi *et al.*, 2024; Okoroma *et al.*, 2023; World Bank, 2022). In rural areas of sub-Saharan Africa, young people often rely on informal or subsistence livelihood activities such as small-scale farming, petty trading, or artisanal work (Etuk *et al.*, 2018). While these activities may provide immediate survival, they offer limited prospects for long-term economic advancement or wealth creation (Madzivhandila, 2023; Mulema *et al.*, 2021). Consequently, promoting entrepreneurial behaviour among rural youth is increasingly recognized as a catalyst for sustainable livelihood improvement and rural development.

Entrepreneurial behaviour refers to the combination of attitudes, competencies and practices that enable individuals to identify opportunities, innovate, take calculated risks and mobilize resources for value-creating ventures (Amaral *et al.*, 2024; Etuk *et al.*, 2024; Boldureanu *et al.*, 2020). Unlike traditional livelihood strategies that are often necessity-driven and survival-oriented, entrepreneurial behaviour reflects an opportunity-driven mindset that transforms subsistence activities into scalable, market-responsive enterprises (Tabares *et al.*, 2022; Brown *et al.*, 2020). According to Obot *et al.* (2024) and Al Mamun and Fazal (2018), rural youth with a high level of entrepreneurial orientation tend to diversify income sources, adopt innovative techniques and pursue new market opportunities which are crucial for enhancing economic resilience in marginalized areas.

In Nigeria, youth unemployment remains a major socio-economic concern, with rates exceeding 40% in many regions, especially rural areas (National Bureau of Statistics [NBS], 2023). Although the Nigerian government has launched several youth-focused entrepreneurship initiatives including the National Youth Investment Fund (NYIF), N-Power and the National Directorate of Employment (NDE), the transition from conventional livelihood activities to productive entrepreneurial ventures remains limited. Factors such as lack of access to finance, inadequate business development services, weak entrepreneurial education and socio-cultural norms discouraging innovation and risk-taking continue to constrain youth enterprise (Dragin *et al.*, 2024; Udoma *et al.*, 2024; Etuk, 2022).

These constraints are especially evident in Akwa Ibom State, where a large segment of the rural

population depends on small-scale agriculture and informal trading for sustenance (Etuk *et al.*, 2018; Nkeme *et al.*, 2019). While these activities may help meet immediate household needs, they often lack profitability, growth potential, or scalability. Moreover, the behavioural aspects of entrepreneurship such as initiative, innovation and opportunity recognition are underexplored among youth in rural areas of Akwa Ibom. Most studies addressing entrepreneurship in Nigeria focus on urban centres or formal-sector youth engagement, leaving a significant knowledge gap regarding how entrepreneurial behaviour influences livelihood outcomes in rural areas.

The relationship between entrepreneurial behaviour and livelihood strategies has been widely acknowledged in international literature. However, few empirical studies have examined this relationship from a localized, youth-focused perspective in Nigeria. Understanding how entrepreneurial behaviour affects the livelihood decisions and outcomes of rural youth in Akwa Ibom is important for designing policies and interventions that are both relevant and behaviorally informed. Without such understandings, development efforts may continue to fail in catalyzing long-term economic transformation at the grassroots level. Therefore, this study seeks to examine the influence of entrepreneurial behaviour on the livelihood activities of rural youth in Akwa Ibom State, Nigeria. The specific objectives are to:

- Examine the level of entrepreneurial behaviour among rural youth in Akwa Ibom State; and
- Examine the effect of entrepreneurial behaviour on the livelihood activities of rural youth in Akwa Ibom State.

METHODOLOGY

This study was conducted in Akwa Ibom State, located in Nigeria's South-South geopolitical zone (Between latitudes 4°32'N & 5°33'N and longitudes 7°35'E & 8°25'E). The state is predominantly rural and agricultural in nature, with a substantial portion of its population engaged in farming, artisanal fishing, petty trading and other informal livelihood activities. Given the behavioural and economic focus of this research, a descriptive survey design was adopted. This design enabled the collection of primary data from rural youth in their environments and provided a reliable framework for analyzing patterns of entrepreneurial behaviour and its relationship with livelihood activities.

A multi-stage sampling technique was used in selecting respondents for the study. At the first stage, six Local Government Areas (LGAs) were purposively selected from the thirty-one LGAs in the state. The

selection was based on their predominantly rural characteristics and the high concentration of youth engaged in informal and agricultural-based economic activities. In the second stage, three rural communities were randomly selected from each of the six LGAs, resulting in a total of eighteen communities. Finally, a proportional sampling approach was applied within each community to draw a total of 185 rural youth, who constituted the study's sample size.

Primary data were collected using a structured questionnaire, which was developed based on the study's objectives. The questionnaire was divided into relevant sections to obtain detailed information on entrepreneurial behaviour and livelihood activities. To ensure validity, the instrument was reviewed by experts in Agricultural Extension and Rural Development. A pilot test was conducted in a rural community outside the sampled area and feedback from the pre-test was used to revise and strengthen the questionnaire's clarity and reliability.

Entrepreneurial behaviour was measured across ten behavioural dimensions adapted from Antony and Thomas (2020), namely: risk-taking, hope of success, persistence, feedback usage, knowledgeability, manageability, innovativeness, achievement motivation, self-confidence and persuability. Respondents were required to rate their agreement with behavioural statements using a four-point Likert-type scale, ranging from "Not Positive" (1) to "Very Positive" (4). Aggregate scores from these

dimensions were used to classify respondents into low, moderate, or high levels of entrepreneurial behaviour.

Similarly, livelihood activities were assessed by asking respondents to indicate the frequency of their engagement in a range of economic activities, including crop farming, livestock production, trading and artisanal work. Responses were measured on a four-point frequency scale: "Never" (1), "Rarely" (2), "Often" (3) and "Always" (4).

Descriptive statistics such as frequency distributions, percentages and means were used to summarize respondents' entrepreneurial behaviour and livelihood activities. To examine the effect of entrepreneurial behaviour on livelihood activities, Canonical Correlation Analysis (CCA) was employed. This multivariate technique was considered appropriate because it allowed for the simultaneous analysis of the relationship between two sets of variables: entrepreneurial behaviour dimensions as the independent variable set and livelihood activity indicators as the dependent variable set. CCA provided a deeper understanding of the underlying linear relationships and patterns of influence between these variable sets. Canonical analysis was utilized to explore the multivariate relationship between entrepreneurial behaviour dimensions and livelihood activities. This method identifies linear combinations of variables that maximize the correlation between two sets of variables. The canonical correlation model is expressed as:

$$U = a_1X_1 + a_2X_2 + \dots + a_pX_p$$

$$V = b_1Y_1 + b_2Y_2 + \dots + b_qY_q$$

Where:

U: Canonical variate for entrepreneurial behaviour dimensions

V: Canonical variate for livelihood activities

$X_1, X_2, \dots, X_p$: Predictor variables (e.g., risk-taking, innovativeness, achievement motivation)

$Y_1, Y_2, \dots, Y_q$: Dependent variables (e.g., crop farming, small business activities)

a_j, b_j : Coefficients indicating the contribution of each variable to the canonical variates

RESULTS

Livelihood activities of rural youth in Akwa Ibom State: The results in Table 1, adapted from Archibong (2024) show that rural youth in Akwa Ibom State engage in a diverse range of livelihood activities, with a stronger inclination toward small business ventures and agricultural pursuits. Among agricultural activities, crop farming (Mean = 2.78) and livestock rearing (Mean = 2.72) were prominent, particularly cash crop cultivation (Mean = 2.89) and poultry farming (Mean = 3.00), reflecting a



Map of study area

shift toward market-oriented production. Engagement in fishing and aquaculture was comparatively lower (Mean = 2.50), indicating reduced interest in aquatic livelihoods. Small business activities recorded the highest overall participation (Mean = 2.87), especially in local trading (Mean = 3.14) and shop management (Mean = 3.03), showing a trend toward microenterprise development. Meanwhile, reliance on remittances and migration was moderate (Mean = 2.63), with receiving financial support (Mean = 2.76) slightly more common than temporary or seasonal migration for income. These findings suggest that rural youth prioritize entrepreneurship and commercial agriculture over traditional or migratory livelihood strategies.

Level of entrepreneurial behaviour among rural youth in Akwa Ibom State : The study assessed entrepreneurial behaviour among rural youth in Akwa Ibom State across ten dimensions and found varying levels of expression as shown in Table 2. Self-confidence (mean = 3.0) emerged as the strongest trait, indicating a robust belief in personal entrepreneurial capabilities, followed by persistence (mean = 2.9) and achievement motivation (mean = 2.7), reflecting determination and goal orientation. Moderate scores in risk-taking, feedback usage, knowledgeability and manageability (means = 2.5) suggest a developing but cautious engagement with entrepreneurial activities. However, lower scores in

Table 1. Distribution of livelihood activities among rural youth in Akwa Ibom State (N=185)

Livelihood Activity	Never No. (%)	Rarely No. (%)	Often No. (%)	Always No. (%)	Mean
<i>Crop farming</i>					
I engage in growing cash crops for income	20 (10.8)	35 (18.9)	75 (40.5)	55 (29.7)	2.89
I engage in cultivating vegetables for sale or consumption.	25 (13.5)	40 (21.6)	70 (37.8)	50 (27.0)	2.78
I farm exclusively to produce food for my family, without selling the crops in the market.	30 (16.2)	45 (24.3)	65 (35.1)	45 (24.3)	2.68
Mean					2.78
<i>Livestock rearing</i>					
I engage in raising chickens for eggs or meat.	15 (8.1)	30 (16.2)	80 (43.2)	60 (32.4)	3.00
I engage in rearing goats or sheep for income or family needs.	25 (13.5)	35 (18.9)	75 (40.5)	50 (27.0)	2.81
I engage in keeping pigs for personal or commercial purposes.	45 (24.3)	70 (37.8)	30 (16.2)	40 (21.6)	2.35
Mean					2.72
<i>Fishing and aquaculture</i>					
I engage in fishing in rivers, streams, or other water bodies to earn a living or support my household.	35 (18.9)	45 (24.3)	65 (35.1)	40 (21.6)	2.60
I raise fish in ponds or tanks as a business or livelihood activity.	40 (21.6)	50 (27.0)	60 (32.4)	35 (18.9)	2.49
I engage in catching crabs, shrimps, or other aquatic animals for food or as a source of income.	45 (24.3)	55 (29.7)	50 (27.0)	35 (18.9)	2.41
Mean					2.50
<i>Small business activities</i>					
I engage in selling goods or products in local markets or community areas.	10 (5.4)	25 (13.5)	80 (43.2)	70 (37.8)	3.14
I am involved in managing or running a small shop, kiosk, or roadside stall.	15 (8.1)	30 (16.2)	75 (40.5)	65 (35.1)	3.03
I provide personal or professional services (e.g., hairdressing, tailoring, carpentry, phone repairs, etc.).	41 (22.2)	68 (36.8)	28 (15.1)	88 (47.6)	2.45
Mean					2.87
<i>Remittances and migration</i>					
I regularly receive financial support (remittances) from family members or relatives living elsewhere.	25 (13.5)	40 (21.6)	75 (40.5)	45 (24.3)	2.76
I temporarily migrate to other locations to seek or engage in work opportunities.	30 (16.2)	50 (27.0)	65 (35.1)	40 (21.6)	2.62
I participate in seasonal work activities in locations outside my usual residence.	35 (18.9)	55 (29.7)	60 (32.4)	35 (18.9)	2.51
Mean					2.63
Critical value=2.5					

hope of success (mean = 2.4), innovativeness (mean = 2.3) and persuasibility (mean = 2.4) show areas of weakness, pointing to challenges in optimism, creativity and interpersonal influence. These findings indicate that while rural youth possess foundational entrepreneurial traits, targeted capacity-building is needed to enhance innovation, adaptability and social engagement.

Effect of entrepreneurial behaviour on the livelihood activities of rural youth : Canonical correlation analysis examined the relationship between entrepreneurial behaviour (predictor variables) and livelihood activities (criterion variables) among rural youth in Akwa Ibom State. This analysis identifies the most influential entrepreneurial behaviour dimensions that drive engagement in various livelihood activities, maximizing the relationship between the linear combination of entrepreneurial behaviour dimensions (risk-taking, hope of success, persistence, feedback usage and knowledgeability) and livelihood activities (crop farming, livestock rearing, fishing, small business activities and remittances/migration).

Table 3 presents the canonical correlation analysis

results, indicating that the first three canonical functions were statistically significant. Function 1 ($R_c = 0.79$, $p = 0.001$) explains the strongest relationship, followed by Function 2 ($R_c = 0.73$, $p = 0.003$) and Function 3 ($R_c = 0.65$, $p = 0.005$), suggesting a strong association between entrepreneurial behaviour and livelihood activities.

Table 4 provides standardized canonical coefficients, revealing that persistence (0.63) and hope of success (0.58) strongly influence crop farming (0.55) and livestock rearing (0.51). Risk-taking (0.52) and feedback usage (0.49) are significantly linked to small business activities (0.53) and fishing (0.50). Knowledgeability (0.46) shows the highest association with remittances/migration (0.47). These relationships suggest that entrepreneurial behaviour traits are key determinants in the livelihood activities adopted by rural youth.

Table 5 presents statistical tests of significance, confirming a strong relationship between entrepreneurial behaviour and livelihood activities. The Wilk's Lambda ($p = 0.003$), Pillai's Trace ($p = 0.003$), Hotelling Trace ($p = 0.004$) and Roy's Greatest Root ($p = 0.001$) indicate significant

Table 2. Distribution of entrepreneurial behaviour among rural youth in Akwa Ibom State (N = 185)

Entrepreneurial behaviour	Not positive	Less positive	Positive	Very positive	Mean
<i>Risk taking Ent</i>					
I am not afraid to invest in new opportunities.	20 (10.8)	55 (29.7)	75 (40.5)	35 (18.9)	2.7
I am willing to take risks if there's a good chance of success.	50 (27.0)	40 (21.6)	70 (37.8)	25 (13.5)	2.4
I can work in uncertain conditions if I see potential benefits.	18 (9.7)	85 (45.9)	52 (28.1)	30 (16.2)	2.5
I will consider a risk worth taking only if the probability of success is 60-100%.	30 (16.2)	80 (43.2)	52 (28.1)	23 (12.4)	2.4
Mean					2.5
<i>Hope of success</i>					
I believe challenges can be turned into opportunities.	31 (16.8)	82 (44.3)	53 (28.7)	21 (11.4)	2.4
I don't dwell on the negative consequences of my decisions.	75 (40.5)	50 (27.0)	35 (18.9)	25 (13.5)	2.1
I see the future as bright and promising.	35 (18.9)	50 (27.0)	60 (32.4)	40 (21.6)	2.6
I meet and solve problems as they arise.	35 (18.9)	80 (43.2)	15 (8.1)	55 (29.7)	2.5
I don't think of negative consequences of decisions that I make.	35 (18.9)	80 (43.2)	15 (8.1)	55 (29.7)	2.5
Mean					2.4
<i>Persistence</i>					
I don't let failures stop me from trying again.	30 (16.2)	44 (23.7)	46 (24.9)	79 (42.7)	2.9
Once I start a task, I finish it no matter what.	18 (9.7)	45 (24.3)	70 (37.8)	52 (28.1)	2.8
I work harder when faced with challenges.	15 (8.1)	37 (20.0)	75 (40.5)	58 (31.4)	2.9
When I fill in a goal, I immediately turn my attention to another goal.	30 (16.2)	41 (22.2)	53 (28.6)	61 (32.9)	3.0
I work just as hard as most people I know.	25 (13.5)	50 (27.0)	55 (29.7)	55 (29.7)	2.7
Mean					2.9
<i>Feedback usage</i>					
I handle criticism well and learn from it.	50 (27.0)	40 (21.6)	65 (35.1)	35 (18.9)	2.5
I try to learn from successful entrepreneurs.	22 (11.9)	35 (18.9)	80 (43.2)	50 (27.0)	2.8
I am open to changing my mind based on new information.	61 (32.9)	55 (29.7)	38 (20.5)	31 (16.8)	2.4
I don't get upset when given negative feedback about the way I perform.	71 (38.4)	45 (24.3)	40 (21.6)	29 (15.7)	2.1

Mean					2.5
<i>Knowledgeability</i>					
I have enough knowledge to start my business.	35 (18.9)	55 (29.7)	61 (33.0)	34 (18.4)	2.5
I believe I am more knowledgeable than most people in my community.	50 (27.0)	53 (28.6)	42 (22.7)	40 (21.6)	2.4
I value understanding my market before starting a business.	35 (18.9)	50 (27.0)	60 (32.4)	40 (21.6)	2.6
I don't see the importance of reading the newspaper every day.	25 (13.5)	50 (27.0)	55 (29.7)	55 (29.7)	2.7
I need not waste time and money on "market research" if the product sells, I will go on producing.	35 (18.9)	55 (29.7)	60 (32.4)	35 (18.9)	2.5
Mean					2.5
<i>Manageability</i>					
I seek expert advice on managing my business.	35 (18.9)	44 (23.8)	50 (27.0)	56 (30.3)	2.6
I practice basic management skills to run my business effectively.	50 (27.0)	40 (21.6)	65 (35.1)	35 (18.9)	2.5
I believe in a team approach rather than doing everything alone.	55 (29.7)	60 (32.4)	40 (21.6)	30 (16.2)	2.2
I cannot be away too long from my business because no one else can manage its activities.	25 (13.5)	50 (27.0)	60 (32.4)	50 (27.0)	2.7
I believe the sole proprietorship is the best form of ownership for a business to succeed.	20 (10.8)	40 (21.6)	70 (37.8)	55 (29.7)	2.8
Mean					2.6
<i>Innovativeness</i>					
I think of new ways to improve my products or services.	40 (21.6)	60 (32.4)	50 (27.0)	35 (18.9)	2.4
I can see new business opportunities where others cannot.	45 (24.3)	65 (35.1)	45 (24.3)	30 (16.2)	2.3
I am open to trying new ideas in my business.	50 (27.0)	55 (29.7)	45 (24.3)	35 (18.9)	2.3
I have never tried introducing new products to the market and I don't think I want to try.	50 (27.0)	65 (35.1)	45 (24.3)	25 (13.5)	2.2
I want to earn more money by starting a new economic activity.	50 (27.0)	40 (21.6)	65 (35.1)	35 (18.9)	2.5
Mean					2.3
<i>Achievement motivation</i>					
I enjoy taking on challenges that push me to work harder.	15 (8.1)	30 (16.2)	85 (45.9)	55 (29.7)	2.9
I am more focused on achieving growth than just making profit.	40 (21.6)	60 (32.4)	50 (27.0)	35 (18.9)	2.4
I am motivated to continuously set and achieve new goals.	18 (9.7)	35 (18.9)	80 (43.2)	52 (28.1)	2.8
I do not mind taking unchallenging work on a routine basis if the pay is good.	25 (13.5)	45 (24.3)	65 (35.1)	50 (27.0)	2.7
I like people on the basis of friendship and other relations (for their loyalty) rather than on the basis of competence.	30 (16.2)	50 (27.0)	60 (32.4)	45 (24.3)	2.6
Mean					2.7
<i>Self-confidence</i>					
I believe in my ability to start and run a successful business.	16 (8.7)	31 (16.8)	55 (29.8)	85 (45.1)	3.2
I am confident in making decisions even when unsure of the outcome.	17 (9.2)	37 (20.0)	80 (43.2)	51 (27.6)	2.9
I trust my judgment when identifying business opportunities.	18 (9.7)	40 (21.6)	75 (40.5)	52 (28.1)	2.8
I feel capable of overcoming any challenges that may arise in my business.	17 (9.2)	35 (18.9)	85 (45.9)	58 (31.4)	2.9
I believe that I can inspire and lead others in a business venture.	12 (6.5)	19 (10.3)	61 (32.1)	93 (50.3)	3.3
Mean					3.0
<i>Persuasibility</i>					
I am open to new ideas and suggestions from others.	22 (11.9)	55 (29.7)	70 (37.8)	38 (20.5)	2.7
I enjoy working with others who have different ideas and perspectives.	50 (27.0)	40 (21.6)	65 (35.1)	35 (18.9)	2.5
I am willing to listen to the opinions of others before making a decision.	35 (18.9)	50 (27.0)	55 (29.7)	45 (24.3)	2.6
I do not like to be criticized by others.	45 (24.3)	70 (37.8)	40 (21.6)	30 (16.2)	2.3
I am confident that others will support me in my business.	71 (38.4)	45 (24.3)	40 (21.6)	29 (15.7)	2.1
Mean					2.4
Critical value=2.5					

Table 3. Canonical correlation analysis between entrepreneurial behaviour and livelihood activities

Canonical functions	Canonical correlation (Rc)	Wilk's lambda	p-value	Significance
Function 1	0.79	0.00021	0.001	Significant
Function 2	0.73	0.00032	0.003	Significant
Function 3	0.65	0.00067	0.005	Significant

Table 4. Standardized canonical coefficients for predictor (Entrepreneurial Behaviour) and criterion (Livelihood Activities) Variables

Canonical Functions	Entrepreneurial Behaviour Variables (Predictors)	Livelihood Activities Variables (Criteria)
Function 1	Persistence (0.63), Hope of Success (0.58)	Crop Farming (0.55), Livestock Rearing (0.51)
Function 2	Risk-Taking (0.52), Feedback Usage (0.49)	Small Business Activities (0.53), Fishing (0.50)
Function 3	Knowledgeability (0.46)	Remittances/Migration (0.47)

multivariate relationships. The strongest test, Roy's Greatest Root, suggests that the first canonical function explains the highest variation in the dependent variable.

Figures 1, 2 and 3 visually depict the relationships between entrepreneurial behaviour dimensions and livelihood activities. Figure 1 illustrates the link between persistence and hope of success with crop farming and livestock rearing. Figure 2 shows risk-taking and feedback usage driving small business activities and fishing, while Figure 3 illustrates how knowledgeability is associated with remittances and migration. These visual representations reinforce the findings from the canonical correlation analysis.

DISCUSSION

The findings indicate that rural youth in Akwa Ibom State adopt a diversified mix of livelihood activities, combining traditional agriculture with non-agricultural income sources. A strong shift toward market-oriented farming is evident, particularly in cash crop and vegetable production, supporting earlier observations by Etuk *et al.* (2020) and Sennuga *et al.* (2023). Poultry farming stands out as the preferred livestock venture due to its accessibility and profitability, in line with Ammani and Barau (2023), while lower participation in pig farming may reflect cultural or economic barriers. Fishing and aquaculture remain underutilized, potentially due to environmental

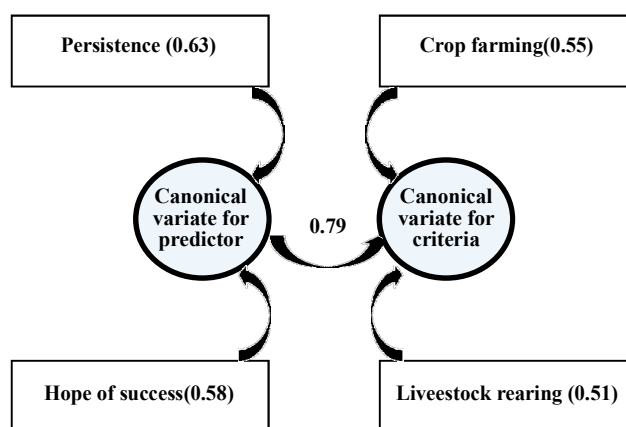


Fig. 1. Canonical function 1 showing the link between entrepreneurial behaviour (Persistence and Hope of Success) and livelihood activities (Crop Farming and Livestock Rearing)

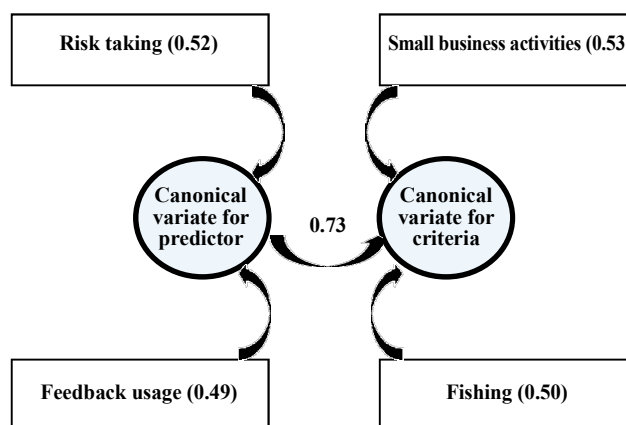


Figure 2. Canonical Function 2 showing entrepreneurial behaviour (Risk-Taking and Feedback Usage) linked to livelihood activities (Small Business and Fishing.)

Table 5. Statistical significance of Canonical correlations

Test	Statistic	Df	F-Value	p-value
Wilk's Lambda	0.00021	244	2.214	0.003
Pillai's Trace	3.05101	244	1.311	0.003
Hotelling Trace	119.14	244	2.076	0.004
Roy's Greatest Root	101.29	9	81.662	0.001

and technical challenges, consistent with Ekpo (2014). The growing prominence of small business ventures, especially trading and shop management, reflects a broader

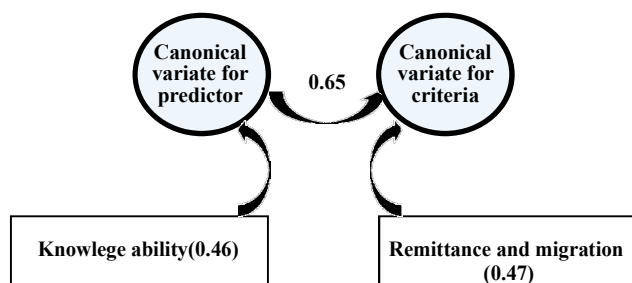


Fig. 3. Canonical Function 3 entrepreneurial behaviour (knowledgeability) linked to livelihood activities (Remittance and Migration)

entrepreneurial shift among youth, aligning with Adeniyi *et al.* (2024) and Human Capital Theory (Goldin, 2016), which emphasizes skill development for improved economic outcomes. Remittances and migration contribute moderately, suggesting a preference for local economic engagement over relocation, as also noted by Adeyanju *et al.* (2023).

The youth exhibited strong self-confidence (mean = 3.0) and persistence (mean = 2.9), indicating a belief in their entrepreneurial abilities and resilience in pursuing goals, consistent with the Theory of Planned Behaviour (Ajzen, 1985) and supported by Amaral, *et al.* (2024) and Ataei *et al.* (2020). Achievement motivation was moderately expressed (mean = 2.7), reflecting a drive for growth beyond immediate gains. However, critical behavioural gaps were identified: innovativeness (mean = 2.3), hope of success (2.4) and persuasibility (2.4) scored low, suggesting limited creativity, optimism and interpersonal influence challenges often linked to poor exposure, marginalization and lack of support (Tabares *et al.*, 2022; Zidane, 2022; Mulema *et al.*, 2021). Risk-taking and feedback usage were borderline (2.5), pointing to cautious decision-making and limited emotional resilience, in line with findings by White *et al.* (2019) and Bouichou *et al.* (2024).

The canonical analysis further reveals a strong and statistically significant relationship between entrepreneurial behaviour and livelihood activities among rural youth in Akwa Ibom State. Traits such as persistence, hope of success, risk-taking, feedback usage and knowledgeability significantly influence youth engagement in farming, small business, fishing and migration-related income strategies. Persistence and hope of success are particularly crucial for sustained agricultural participation, aligning with the Theory of Planned Behaviour (Ajzen, 1985) and supported by Mukwedeya and Mudhara (2023) and Bedru and Motunranyo (2022), who emphasized the role of resilience and optimism in overcoming rural farming challenges. Risk-taking and feedback usage

were associated with participation in small business and fishing, affirming the views of Ataei *et al.* (2020), Eja and Ramegowda (2020) and Hasanah *et al.* (2023) on the importance of adaptability and continuous learning in entrepreneurial success. Knowledgeability was closely linked to migration and remittance strategies, consistent with Simbeko *et al.* (2023) and Kavishe *et al.* (2023), who found that well-informed youth are more likely to pursue economic opportunities beyond their immediate environment. The high canonical correlation coefficient ($R_c = 0.79$, $p < 0.01$) further reinforces the robustness of these findings, supporting Zidane (2022) and highlighting entrepreneurial behaviour as a significant predictor of livelihood diversification and rural economic engagement.

CONCLUSION

The study examined the level of entrepreneurial behaviour and its effect on livelihood activities among rural youth in Akwa Ibom State. The results revealed that the youth are engaged in a variety of livelihood activities, with small business ventures, crop farming and livestock rearing being the most dominant. While respondents showed relatively high levels of self-confidence and persistence, the overall level of entrepreneurial behaviour was moderate. Critical behavioural traits such as innovativeness, hope of success and persuasibility fell below the benchmark, indicating limitations in creativity, future orientation and interpersonal influence.

Canonical correlation analysis confirmed a strong and statistically significant relationship between entrepreneurial behaviour and livelihood activities. Specifically, persistence and hope of success were closely associated with crop and livestock farming, while risk-taking and feedback usage influenced engagement in small businesses and fishing. Knowledgeability was linked to remittances and migration-related strategies. These findings stress the pivotal role of behavioural competencies in shaping the livelihood decisions of rural youth. Based on the findings of the study, the following recommendations are proposed:

Targeted capacity-building programs should be implemented to improve low-performing behavioural dimensions such as innovativeness and risk-taking. These programs should include experiential learning, creativity workshops and simulation-based business scenarios to build youth confidence in taking calculated risks and exploring new ideas.

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policies should incorporate behavioural training modules that promote self-efficacy, feedback receptivity and goal-setting. This will strengthen attributes such as hope of success and feedback usage, which were found to be significant predictors of livelihood engagement.

To address low persuasibility and improve interpersonal and leadership skills, rural youth should be linked to mentorship platforms, cooperative networks and business incubators. These structures can facilitate knowledge sharing, business collaboration and exposure to role models, which are critical for expanding livelihood opportunities and sustaining ventures.

Funding: No specific grant was received for this study.

Conflict of interest: Authors have no conflict of interest.

Data availability: Data available on reasonable request from the corresponding author.

Acknowledgements: The authors appreciate the support of local leaders and youth who participated in the study.

Authors' contributions: First author conducted fieldwork and drafted the manuscript. Second author contributed to the analysis. Third author reviewed the literature and edited the final document. All authors approved the final version.

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How to cite:

Archibong, E. M.; Etuk, U.R., and Akpabio, I.A. (2026). Influence of entrepreneurial behaviour of rural youth and livelihood activities in Akwa Ibom state, Nigeria. *Indian Res. J. Ext. Edu.*, **26** (1): 64-73.