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EVALUATION OF THE ADOPTION LEVEL OF POULTRY PRODUCTION TECHNOLOGIES AMONG THE BENEFICIARIES OF THE YOUTH AGRICULTURAL ENTREPRENEURS PROGRAMME IN DELTA STATE

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ABSTRACT

The study evaluated the level of adoption of poultry production technologies among the beneficiaries of the youth Agricultural entrepreneurial programme in Delta State. The population of the study comprised of all the 1520 participants across the state and group 140 participants were selected randomly to make the sample size. The data for the study was obtained through the structured questionnaire whose items border on the various poultry technologies. The data analysis was done through the descriptive statistics of percentage and mean deviation. The study revealed among other things that the findings revealed that capital investments which was provided for modern poultry technologies such as automated feeders and drinkers, feed formulation among others were generally in short supply and scarcely made available to participants in the YAGEP programme, this drastically affected the level of participation and adoption of new technologies in the programme. It was recommended among other things that the government of Delta State should encourage the participant to adopt poultry technologies by subsizing the financial cost of the technological materials.

Keywords: Adoption; Poultry Production Technologies; Beneficiaries; Youth Agricultural Entrepreneurs Programme.

Introduction

Youth unemployment is an intricate and serious economic challenge in Nigeria (Ngboawaji et al., 2024). It is a cankerworm that has eaten deep into the system and its unswerving high rates over the last two to three decades has led so many youths into various criminal activities and vices such as cybercrime, oil bunkering, political thuggery, pipeline vandalization, violence, kidnapping of oil workers, armed robbery and internet fraud (Virk et al., 2024). As a matter of fact, these factors conceivably present a significant threat to the security, economic and development of a nation (Olurounbi, 2021). The alarming rate of youth unemployment, ranging from 40.8% in the second quarter to 53.4% in the fourth quarter of 2020 has positioned Nigeria as the second highest country in global ranking (National Bureau of Statistics (NBS), 2020), this increase may be attributed to several factors, such as, a mismatch between education and job market skills, limited infrastructure, inadequate private sector engagement, delayed allocation of capital budget by the federal government, implementation of employment freeze in several public and private sector organizations, and the growing population of recent graduates who are unable to get suitable employment opportunities (Ngboawaji et al., 2024).

In 2023, the National Bureau of Statistics (NBS) estimated that over 60 percent of Nigeria's population, under 30 years of age, about 33 percent of that demographic are unemployed. This upsetting figure reflects the severe certainties of what millions of Nigerian youths face daily and paints a disconcerting picture of a country full of potential but held back by inadequate chances for its youths (National Bureau of Statistics (NBS) 2023).

Youth unemployment hinders Nigeria's economic growth, aggravates poverty, and impends the country's social and economic stability (Sodiq, 2024). The extensive spread of joblessness asphyxiates innovation, efficiency and development, leading to a wrinkle effect that deteriorates the economy (Virk et al., 2024). The absence of decent job opportunities in the country repudiates youth their right to appropriate standard of living, thus putting many into low-paying, casual jobs or illegal activities; this frustration leads into rising crime rates, insurgency, and social unrest, as seen in the EndBadGovernance remonstrations, where Nigerian youths took to the streets, not just against the government but against the systemic letdowns restraining their opportunities (Sodiq, 2024).

Youth unemployment exerts negative influence on various socioeconomic aspects, extending beyond the unemployed youth themselves (International Labour Organization, 2023). Similarly, Adeyanju et al., (2021), averted that lack of job can have an unfavorable effect and convey negative message to individuals at large, as such, this can amount to increase in youth restlessness, increase in poverty, rural-urban migration, low productivity, among other factors (Ibekwe, 2021).

The Federal Ministry of Youth Development (2022), indicated that only a marginal of the youth demographic is employed within the formal sector; though unemployment rates do not often apprehend the adequacy or inadequacy of available employment opportunities since they do not take employment quality into account. The low unemployment and underemployment rate amongst Nigerians and sub-Saharan Africa youths, partly replicates the circumstance that many youths have resorted to insecure and often low-productive jobs in the informal sector instead of remaining unemployed and economically reliant on parents and guardians (International Labour Organization, 2022). Precisely, female youths, face momentous barriers and challenges to unemployment; especially those from economically underprivileged or low-income backgrounds are forced to accept risky, unskilled and low-paid jobs, such as beer/Liquor shops (locally known as beer parlor), Local food joints/shops (locally known as mama put) beer promotion for alcohol producers and marketers, waiters at night club or places where they are vulnerable to sexual harassment from predominantly male patrons (Dumbili & Nelson, 2022).

Eromedoghene et al., (2023), asserted that job creation through specialized innovation, innovativeness, entrepreneurship education, opportunity recognition, and infrastructural improvement increases the economic possibilities to lessen the degree of unemployment, and will support the expectation for everyday indulgences of youths and

drastically diminish the involvement of youths in criminal activities, vices caused by unemployment. Similarly, Amadi & Nnodim (2018) averted the necessity of entrepreneurship development in Nigeria by the fact that entrepreneurship development is a major factor in economic growth and development and most importantly the permanent solution to extreme hunger and poverty. Thus, to curb youth unemployment and its accordant undesirable consequences, the Federal Government of Nigeria introduced entrepreneurship studies in the curriculum of tertiary institutions, an approach and effort which aims at promoting a shift from the predictable formal government provision of employment towards entrepreneurship (Akande, 2019). These efforts were reflected in several agricultural training programmes designed to equip young people with the necessary skills needed as entrepreneurs to boost agricultural production, increase food security and eradicate poverty (Ogunmodede et al., 2020).

Though, in preceding years, various scholars perceived the importance of utilizing entrepreneurship to achieve economic advancement of the country; however, not much resources were devoted to it as the country was over dependent on revenue from oil (Okeke et al., 2020). The unwarranted dependence of Nigeria on oil revenue led to a neglect of other sectors of the nation's economy; it reduced agricultural and industrial productivity, enlarged dependence on imported goods, amplified unemployment, especially among the youths, and knotted the country's economy to the whims of international oil price fluctuations (Ngboawaji et al., 2024). As a result of this, the National income and Nigeria's foreign reserves diminished drastically over the years, thus creating economic difficulties, widespread poverty, joblessness, under-employment and youth restiveness all around the country; in the look of the foregoing difficulties which Nigerian youths currently encounter, developing youths apparently as entrepreneurs seems to be a conceivable solution (Njoku et al., 2020).

Youth entrepreneurship has become the focus of several government authorities (Amadi & Nnodim, 2018). entrepreneurship education, innovative skills, vocational abilities, empowerment, provision of infrastructures and other indispensable variables are very imperative in present dispensation (Eromedoghene et al., 2023). Similarly, Omeje et al., (2020) opined that youth entrepreneurship is a useful tool for Nigerians and other African countries for economy diversification. He further noted that youth entrepreneurship is captured as a premeditated means of recovering from increasing unemployment and boosting the economic growth. In a proposition to address youth unemployment, Nigerian governments both at the Federal and State levels simultaneously over the years, initiated several agricultural development policies, projects and programmes in order to refocus on the nation's potentials of farming, boost food production, reduce unemployment rate and achieve food security (Nwoye & Nwalieji, 2019). At the Federal level, these programmes included but not limited to Agricultural Development Project (ADP) 1974; National Special Programme on Food Security (NSPFS) 2002; Agricultural Transformation Agenda (ATA) 2013; National Directorate of Food and National Fadama Development Programme (NFDP) 1990; Root and Tuber Expansion Programme (RTEP) 2001;

National Economic Empowerment and Development Strategy (NEEDS) 2003; and Implications of Policy and Agency-Based Development Initiative. Whereas at the State level, specifically in Delta State, programmes like Youth Agricultural Entrepreneurs Programme (YAGEP) 2015 and Skill Training and Entrepreneurship Programme (STEP) 2015; were among the job and wealth creation programmes initiated and implemented by the State Government (Adeyanju et al., 2020).

According to Livingstone-Attorneys (2020), these youth agriculture empowerment programmes were targeted to empower the unemployed youth population in order to make them self-reliant and dependent, develop the skills and knowledge through capacity building that will enable them seize control of their lives socially, politically, economically and psychologically. Thus, in the face of the foregoing hitches which Nigerian youths currently encounter, developing youths to be entrepreneurs appears to be a possible solution (Okeke et al., 2020). It is for this reason that the Youth Agricultural Entrepreneurial Programme (YAGEP) was initiated by the Nigeria's Delta State government in 2015 to prepare, train, develop and advance youth entrepreneurship in farming and agribusiness with the sole purpose of equipping participants to establish their own enterprises (YAGEP, 2021).

The YAGEP is an integral part of the Delta State Government's agenda to curb youth unemployment and develop the agricultural economy of the State for wealth creation; It was designed to be trainee-centered, service-oriented and results-oriented with a focus on transforming unemployed youths into entrepreneurs, leaders, and managers. The Programme seeks to engage and motivate the youths to actively participate in agricultural enterprise by providing them with the necessary skills, knowledge, and opportunities. More so, fostering and emphasizing an entrepreneurial mindset among the youth, innovative thinking, problem-solving, and risk-taking (Eboh, 2022).

In YAGEP, the scope of training covers agricultural subject matter, enterprise management, leadership and life skills, group organization and group farming; Participants were supported to establish and run their own enterprises through the provision of starter packs of day-old chicks, feeders, drinkers, provision for warmth equipment, doses of required vitamins and supplements; In addition, participants received, buffer stipends during the enterprise gestation period and some working capital to purchase inputs and/or working materials. YAGEP has ran seven successive cycles from 2015/2016 cycle to 2021/2022 cycle with a total of number of 1,520 YAGEP beneficiaries who were trained, established and supported in various poultry ventures such as, egg and meat production, poultry feed formulation, chicks brooding and hatchery, slaughtering, processing and packaging, poultry health management, pest & disease control and management, among other ventures (Delta State Government, 2021). Salami et al., (2021), asserted that the poultry industry plays a key role in economic development in sub-Saharan Africa especially in Nigeria. Poultry is special because it has the highest feed conversion rates and produces the least expensive and best sources of animal protein. It has been described as the fastest means of solving the problem of protein deficiency in Nigeria. poultry meat

(chicken) and eggs are delectable and widely accepted, with little or no cultural or religious restrictions. As components of a nutritious, well-balanced diet, eggs and chicken (poultry meat) are crucial for kids, expectant and nursing mothers and sick individuals in particular.

Similarly, Andrew (2024) noted that the poultry meat industry earns £9.4 billion in turnover, more than a third (34%) of this was produced by poultry farmers, who raised chickens, turkeys, ducks and geese. The outstanding 66% was produced by poultry processors who slaughtered, cleaned, prepared and created poultry food products. Through these activities, poultry meat industry will be calculated to create an estimated of £2.4 billion gross value, an added contribution to UK GDP. He further explained that, around £1.1 billion of this gross value added (46%) was created by the poultry farming sector. The remaining £1.3 billion (54%) can be attributed to the poultry processors. About 108,100 jobs across the UK in 2022 (35,400 workers; 33%) were employed directly by the poultry meat industry with some 27,100 involved in poultry meat processing, and 8,300 engaged in poultry farming. It was estimated that the total economic output and employment sustained by the poultry meat sector generated £1.6 billion in tax revenues (Udoh et al., 2024).

Delta State Government expects an abundant supply in the poultry production cycle as poultry provides funds in an emergency, serving as a "safety net". It plays a huge part in rural livelihoods of each farm enterprise. Additionally, it offers a high-nutrient source of animal protein in the form of meat and eggs (Andrew, 2024). Udoh et al., (2024), reported that poultry products should be enough to feed the people and enhance their standard of living, generate income and create employment. Although, several unemployed youths are reluctant to embark in agriculture as they scavenge the ecosystem in search of white-collar jobs or engage in various unprecedented vices to make quick cash such as internet fraud, armed robbery, drug addiction and peddling, prostitution, kidnapping, insurgency, human trafficking, vandalization of oil refinery; the consciousness of Governor Okowa's vision on YAGEP to productively empower and engage youths in agricultural enterprises cannot be subjugated (Delta State Government, 2021). Thus, in the light of the above, this study therefore assessed the Youth Agricultural Entrepreneurs Programme (YAGEP) among poultry production beneficiaries in Delta State, Nigeria.

Statement of the Problem

One of the principal challenges that poses an imperative risk to Nigeria's security and socio-economic progression is the lasting issue of youth unemployment (Ngboawaji et al., 2024). Consequently. the issue of unemployment led to a rise in criminal activities and acts of violence among the youth demographic (Okechukwu & Nwekwo, 2020). This was witnessed during the End-SARS protest of October, 2020, where the army of subjugated Nigerian youths served as key actors; the peaceful protest transformed into a resolute and harmonized response to youth marginalization and segregation when the state responded with the use of firearms against defenseless youths who converged at the present notorious Lekki tollgate in Lagos, Nigeria (Akanle & Uzieyi, 2023). Youths bear the effect of democratic inequalities, a condition that

renders them vulnerable to mobilization for violence (Collier & Hoeffler (2004); Virk et al., (2024). The phenomenon of youth unemployment condenses young individuals to be susceptible to radicalization and the proliferation of unlawful activities, as such poses a significant threat to the fundamental pillars of society (Ngboawaji et al., 2024).

In Delta State, Nigeria, unemployment ranked third among the South-South States with an average rate of 40.36% while underemployed rate was at 20.1 % (Chovwen, 2021). In a report addressed by Shimfe et al., (2020), Over 1.4 million youths in the State scrambled for 5,000 job openings advertised by the Nigeria Security and Civil Defence Corps (NSCDC); an evidence of acute unemployment issue. Similarly, approximate fifty thousand applicants applied for one thousand vacant teaching jobs in 2019; only a handful was employed, dismissing a substantial amount of angry youths back to roam the street; yet another loosed end of unfulfilled dreams (Ajaino et al., 2023).

To address this issue of youth unemployment, the Delta State Government's sponsorship through Youth Agricultural Entrepreneurs programme has been emphasized as a strategy established to affect farmers' investment behavior and productivity in agribusiness; though the concrete effectiveness of the programme (i.e. after about seven years of operation; 2015 – 2022) in achieving their intended aims & objectives remained vague, enquiries lingered on the beneficiaries' level to participate in the programme, adopt poultry technologies, their perception on the impact of the programme and the reasons for the limited accomplishment of past initiatives. This study therefore, seeks to fill the knowledge gap by assessing the Youth Agricultural Entrepreneurs Programme among poultry beneficiaries in Delta State. The study was guided by the following research questions.

Objective of the study

The objective of this study is to ascertain the level of adoption of poultry production technology among beneficiaries of the Youth Agricultural Entrepreneurs Programme.

Research question

What is the level of adoption of poultry production technology among beneficiaries of the Youth Agricultural Entrepreneurs Programme?

Population of the study

The population for the study was drawn from 1,520 registered beneficiaries of the Youth Agriculture Entrepreneurs Programme in Delta State.

Sample size

A multi-stage involving purposive and random sampling procedure was used to select two hundred and forty (240) poultry farmers from the registered beneficiaries.

Method of data collection

The data for the study was collected through a validated well-structured questionnaire.

Method of Data Analysis

The descriptive Statistical of percentage and mean call where use to analyse the data.

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Data Analysis and Results

Adoption of poultry production technologies	PR	NA	AR	PA	FA	MDAS	Adoption Quotient (%)	t-ratios
Battery cage system	48 (20.0%)	51 (21.3%)	43 (17.9%)	63 (26.3%)	35 (14.6%)	1.94	48.54	22.04
Deep litter system	0 (0.0%)	64 (26.7%)	67 (27.9%)	51 (21.3%)	58 (24.2%)	2.43	60.73	33.43
Automated feeder and Drinker	42 (17.5%)	42 (17.5%)	51 (21.3%)	56 (23.3%)	49 (20.4%)	2.12	52.92	23.67
Vaccination and Disease Management	0 (0.0%)	0 (0.0%)	74 (30.8%)	85 (35.4%)	81(33.8%)	3.03	75.73	58.31
Feed Formulation Techniques	36 (15.0%)	65 (27.1%)	45 (18.8%)	46 (19.2%)	48 (20.0%)	2.02	50.52	22.9
Waste Recycling and Management	0 (0.0%)	59 (24.6%)	59 (24.6%)	65 (27.1%)	57 (23.8%)	2.5	62.5	35.04
Brooding Equipment	48 (20.0%)	50 (20.8%)	47 (19.6%)	51 (21.3%)	44 (18.3%)	1.97	49.27	21.8
Production Record Keeping	0 (0.0%)	66 (27.5%)	72 (30.0%)	51 (21.3%)	51 (21.3%)	2.36	59.06	33.26
Artificial Incubation	48 (20.0%)	47 (19.6%)	44 (18.3%)	47 (19.6%)	54 (22.5%)	2.05	51.25	21.93
Disposal of birds during severe infections like flu	0 (0.0%)	70 (29.2%)	61 (25.4%)	47 (19.6%)	62 (25.8%)	2.42	60.52	32.29
Use of improved variety of chicken for egg/meat production	0 (0.0%)	60 (25.0%)	68 (28.3%)	70 (29.2%)	42 (17.5%)	2.39	59.79	35.44
Use of Extra calcium for layer birds	0 (0.0%)	66 (27.5%)	58 (24.2%)	55 (22.9%)	61 (25.4%)	2.46	61.56	33.3
Application of fumigation on hatchery and poultry shed	59 (24.6%)	43 (17.9%)	37 (15.4%)	48 (20.0%)	53 (22.1%	1.97	49.27	20.34
Provision of vitamin and mineral mixture to birds to avoid deficiency disease and to boost their immunity	0 (0.0%)	63 (26.3%)	51 (21.3%)	67 (27.9%)	59 (24.6%)	2.51	62.71	34.46
Cleanliness around the Poultry farm	0 (0.0%)	0 (0.0%)	70 (29.2%)	69 (28.8%)	101 (42.1%)	3.13	78.23	57.99
Grand mean differential adoption score						**2.35**	**58.84**	

Result Discussion

The shows the poultry production technologies introduced by YAGEP to the beneficiaries to enhance poultry productivity. The result reveals that battery cage system with the adoption quotient (48.54%), MDAS (1.94) has low adoption level; t-ratio (22.04**);** The Litter System with adoption quotient (60.73%), MDAS (2.43), has moderate adoption level; t-ratio (33.43). The Automated Feeder and Drinker with adoption quotient (52.92%), MDAS (2.12), has low-to-moderate adoption level; t-ratio (23.67). Vaccination and Disease Management with adoption quotient (75.73%), MDAS (3.03) has high adoption level; t-ratio (58.31). Feed Formulation Techniques with adoption quotient (50.52%), MDAS (2.02), has low adoption level; t-ratio (22.9). Waste Recycling and Management with adoption quotient (62.5%), MDAS (2.5) has moderate adoption level; t-ratio (35.04**).** Cleanliness around the poultry farm with adoption quotient (78.23%), MDAS (3.13) has high adoption level; t-ratio (57.99).

The finding of the study is in line with the findings of Wechie and Elenwa (2024), who reported that younger farmers are willing to adopt modern technologies which will enable them make additional income and improve their standard of living. This finding is also in line with the findings of Sophi, (2024), revealed that high level of education plays a significant role in the farmers' adoption of improved technologies; such that, implementing and maintaining sophisticated technologies necessitates specialized knowledge that many poultry farmers may lack. The finding of the study also conforms with the findings of Eromedoghene et al. (2022) who reported that poor distribution of technological inputs could seriously hamper adoption of innovations. He further reported that, awareness and exposure are also vital elements in the adoption of new poultry technologies These findings highlight the extent to which beneficiaries have integrated introduced technologies into their poultry enterprises, providing insights into the program's effectiveness. Literally, the implied capital investments which was provided for modern poultry technologies such as automated feeders and drinkers, feed formulation among others were generally in short supply and scarcely made available to participants in the YAGEP programme, this drastically affected the level of participation and adoption of new technologies in the programme; the assessment of the adoption rates are also essential because it would permit agricultural policymakers to resolve whether or not to invest more in the improvement of the technology's dissemination programmes to make it accessible to the entire target population.

Conclusion

On beneficiaries' levels of adoption of poultry production technologi**es;** grand mean differential adoption score (2.35), adoption quotient (58.84), The findings revealed that capital investments which was provided for modern poultry technologies such as automated feeders and drinkers, feed formulation among others were generally in short supply and scarcely made available to participants in the YAGEP programme, this drastically affected the level of participation and adoption of new technologies in the programme. Findings also shows that poor distribution of technological inputs, awareness and exposure could seriously hamper adoption of programme.

The government of Delta State through the ministry of Agriculture, Agricultural extension agents and other relevant agricultural agencies encourage the youth participants to ensure the adoption of poultry production technologies emphasizing on the need in improving productivity and profit making through public enlightenment programmers. The cost implication of adopting poultry technologies by the youths in the state should be borne by the government at least subsidizing the overall cost.

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