Agripreneurship and Poverty Reduction: Empirical Evidence from Tubah Sub-Division, North West Region, Cameroon

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Research Article

Abstract

Purpose: *The purpose of the study is to investigate how entrepreneurship in the agriculture sector could help in alleviating poverty in the Tubah region of Cameroon. Specifically, the study seeks to explore the potential of agripreneurship in creating job opportunities, increasing income levels, and improving the living standards of people in the region.*

Methods: *Mixed-method design was employed for the study. Data was gathered with the help of a structured questionnaire from 384 households in Tubah-Cameroon and analyzed using the partial least square.*

Results: *Results revealed that attitudes towards agripreneurship, innovative behavior, and* ***the*** *need for achievement had a positive effect on poverty reduction in Tubah Sub-Division. Inheritance of family ventures and start-up motives were found to exert a negative effect on poverty reduction.*

Implications: *The study is expected to contribute to the understanding of how entrepreneurship in the agriculture sector can be leveraged to promote economic opportunities and promote sustainable development in rural areas.*

Keywords: Agripreneurship, Standard of Living, Health, Education, Poverty.

1. Introduction

Modern agriculture has to deal with the effects of globalization and market liberalization**,** food price crises, the depletion of natural resources, climate change, changing patterns of production and consumption, changing demographics, and so on (Capone, Bilali, Debs, Cardone, & Driouech, 2014). Farmers, particularly smallholders, young people, and women, face challenges because of the ways in which these factors influence the dynamics of the market. The importance of smallholder agriculture to national economies and rural communities has led many countries to prioritize market-oriented agricultural policies. This necessitates the need for more agribusiness entrepreneurs in this area.

Agripreneurs are those who enter the agricultural business sector and start a new business or venture, or expand an existing business. In fact, agripreneurship includes the process of taking an idea or vision and turning it into reality (Singh & Misra, 2021). However, the features of those who engage in agripreneurship distinguish them from other forms of self-employment. Agripreneurs are known to be innovative thinkers who seize new possibilities, are comfortable taking calculated risks, and are able to swiftly adjust their plans to meet the needs of their industry. Most of the time, they are the ones who

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create something new (Kahan, 2013). While farmers are known for their ingenuity and creativity, they frequently lack the resources necessary to turn their ideas into successful businesses. External systemic variables, such as economic and social impediments, legislation, and regulations, can have an impact on Agripreneurs (Kahan, 2013). Even though they affect all farmers, and especially all smallholders, women and young people are disproportionately impacted by these limitations.

Farmers who wanted to start successful enterprises found the guidance of rural professionals to be useful. In addition to imparting management and other functional skills, they also provide the farmers with access to information, markets, and financial services. Policies and laws are made more agribusiness-friendly**,** and societal norms are altered with the help of rural consulting services (Barcus, Jones & Schmitz, 2022). With these policies, it is anticipated that agribusiness will play a significant role in alleviating poverty.

Although the incidence of poverty in Africa has dropped from 54% in 1990 to 41% in 2015, the number of people living in poverty has climbed from 278 million in 1990 to 413 million in 2015 (Edem, Agba & Ojong, 2020). This provides strong evidence for well-considered policies that aim to promote economic development as well as social inclusion, environmental sustainability, and equality between the sexes. Many people can't get access to the education they deserve. More than 72 million children of primary school age are not enrolled in school, and 759 million people worldwide are illiterate, meaning that they lack the knowledge to improve their and their children's lives. The United Nations Educational, Scientific, and Cultural Organisation (UNESCO) reports that among African children, over 20% are out of school between the ages of 6 and 11, and among teenagers aged 15 to 17, almost 60% are out of school (Kaledzi, 2022). The crisis in human resources for health mirrors the dismal state of the population's health. The continent of Africa bears 24% of the world's illness load, but only possesses 3% of the world's health professionals. This results in severe shortages of doctors, nurses, technicians, health managers, administrators, and planners (Chauhan, Dessie, Noreddin & El Zowalaty, 2020).

About 70% of Cameroon's working population is involved in agriculture, and about 80% of the country's GDP comes from this industry. It brings in one-third of the country's export money and 15% of the government's total income (WWF, 2022). Despite this great potential, Cameroon's agricultural sector faces a number of challenges that jeopardize the nation's ability to meet its rising food demands**.** Cameroon is a low-middle income nation, but poverty and inequality are becoming worse in the north, especially in the conflict-prone North-West, while improving modestly elsewhere. The northern areas continue to be vastly different from the rest of the nation in terms of rural vs. urban and regional differences. According to a recent government poverty map, the number of people living in extreme poverty rose to 77% in the Far North, 57% in the North West, and 21% in the South West between 2014 and 2019, while it fell to 74%, 55%, and 18% in the rest of the country, respectively (Woode, 2021). In addition, 102,000 Nigerian refugees living in the Far North were displaced again due to the Boko Haram insurgency and the ongoing escalation of violence in Nigeria and the Lake Chad area (Hassan, 2019). Poverty and an already low Human Capital Index (HCI) have been hit hard by the recent violence in the Anglophone areas (0.39, i.e., below the 0.4 average of Sub-Saharan Africa). According to estimates, about 4.2 million people are in critical need of humanitarian aid.

Against this backdrop, this article investigates the effects of agripreneurship on poverty reduction in the Tubah Sub-Division of the North West Region of Cameroon. Specifically this research examines the following research questions in the context of the Tubah Sub-Division of Cameroon:

a. How does the attitude towards agripreneurship affect poverty reduction?
b. How does the need for achievement influence poverty reduction?
c. Is there any effect of the inheritance of family ventures on poverty reduction?
d. What is the effect of start-up motion on poverty reduction?
e. Does innovative behavior have any moderating effect on poverty reduction?

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The rest of this article is organized as follows: Section 2 situates the article in its proper perspective by reviewing literature linking the practice of entrepreneurship in agriculture to poverty reduction, Section 3 discusses the method of analysis, Section 4 presents and discusses the results, and Section 5 concludes the article with some policy implications.

2. Review of Related Literature

2.1 Theoretical Considerations

McClelland's (1971) psychological theory of entrepreneurial supply centers around the concept of achievement in his book "The Achieving Society". McClelland believes that the need for achievement is largely required for economic development. A society with a generally high level of need for achievement will produce more energetic entrepreneurs, who in turn will produce more rapid economic growth. McClelland did not mean "entrepreneur" to imply ownership, as is often associated with the word in modern use. An entrepreneur is someone who directs the means of production for the benefit of others.

A high n-achievement level, according to McClelland, leads to a rise in the number of business owners, who in turn help spur quicker economic growth. The encouragement of success-oriented behavior. McClelland's central argument has been the subject of some theoretical debate. The motivations for the increasing rate of societal n-achievement have been questioned by several academics. Despite skepticism about the data and reservations about McClelland's process of economic development, the theory of n-achievement has advanced the psychological foundation of entrepreneurial theory and provided a new path for the growth of the field. This is especially true in economically developing countries.

The concept of entrepreneurship being a "cure-all" for a flourishing economy is a common one. Most people agree (Acs & Storey, 2004; Fritsch, 2013; Fritsch & Noseleit, 2013) that a successful business has a noticeable effect on the economy as a whole by creating new jobs and bringing in new products and services. When one company benefits, others must change their practices, provide new products, or even close their doors. This Schumpeterian approach to creative destruction from 1934 would lead to economic growth, more jobs, and higher wages in the long run. This shows that even people who aren't entrepreneurs can benefit from the work of entrepreneurs. They may have an effect on the lives of employees all over a given region. So, if politicians want to create more jobs and reduce poverty, they might do well to encourage people to be entrepreneurs (Storey, 1994).

McClelland's (1971) theoretical explanations are discouraging, but the empirical applications he gives give the idea that the basic ideas could be tested in the real world. However, it is found that the empirical counterparts of McClelland's ideas are very questionable. One may wonder how many of the individuals who, according to McClelland's methods, are high achievers could actually apply these concepts in contemporary developing nations without assistance from other factors.

The idea of agripreneurship as a panacea for eradicating poverty is widely held. Proponents claim that it reduces poverty, boosts earnings, and creates jobs in the cities where it occurs. In contrast, critics say that many would-be Agripreneurs are instead establishing locally focused businesses that have a limited output. Despite the ongoing discussion, however, very few studies have examined the link between agripreneurship and semi-urban poverty.

2.2 Empirical literature

Ouko, Ogola, Ng'on'ga, and Wairimu (2022) found that young agripreneurship was a key way to fight poverty and create more jobs in rural areas. Secondary sources like Science Direct, Scopus, CAB Abstracts, MDPI, Springer, Google Scholar, RefSeek, SAGE, John Wiley, and Taylor & Francis were used for this study. The results suggest that if more young people in Kenya become involved in agribusiness, it may lead to a rise in food production. This would not only make sure there is enough food in Kenya, but it would also help with the growing problems of unemployment and poverty among the country's growing population. If we want more young people in rural areas to take up farming as a

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profession, we need to provide them with the tools they need to be successful business owners. Also, the government should figure out a way to provide recent graduates with seed money to invest in agriculturally-focused businesses. In a similar vein, the government could set up a development fund to help Agripreneurs get their businesses off the ground so that they may set up agricultural incubation centers. These will aid in the fight against poverty and the creation of jobs for young people, two of the main tenets of the Sustainable Development Goals (SDGs) and Vision 2030.

Specifically, Nwibo, Mbam, and Biam (2016) looked at what factors influence rural families to become agripreneurs in the Ishielu local government area of Ebonyi state. A standard questionnaire and interview schedule were used to get information from 120 randomly chosen rural homes using a research method called retrospective research. Descriptive and inferential (logit regression analysis) statistics were used to examine the data gathered. The majority of the entrepreneurs were men (64.20%), with an average household size of 7.2 members and a mean productive age of 46 years. Meanwhile, farming production of arable crops, livestock, and fisheries was the main agribusiness activity, providing an annual income of ninety-eight thousand nairas, or 343 nairas, or twenty kobos on average for the locals (N98, 343.20). Farmers' motivation to engage in entrepreneurial activity was found to be affected by factors such as ease of access to credit and loans, tax rates, agripreneurial training, income level, market accessibility, soil fertility, number of competitors, agricultural output volume, social amenity accessibility, and farming system. The research concluded that rural families need to be better informed about how to locate promising agricultural prospects and that important investment facilities like power and decent roads should be made available to them.

For their 2018 study, Jimoh and Ogunsanwo looked at agripreneurship as a primary means of lowering youth unemployment in Nigeria's Yewa South Local Government Area, Ogun State. This study looked at entrepreneurship as a potential solution to the high youth unemployment rate in Ogun State, Nigeria. A descriptive research strategy was used for this investigation. One hundred and twenty (120) workers were chosen at random from a subset of farms in the Yewa South local government area. They utilized regression to test our two working hypotheses. The findings of this study highlight the potential of entrepreneurship as a broad economic strategy for addressing unemployment, particularly among recent college graduates. According to the findings, which showed a statistically significant relationship between entrepreneurship and job creation, entrepreneurship has the potential to support economic growth by generating employment and financial security for a country's thronging youth.

Kareem (2015) looked at the role of entrepreneurship in reducing poverty. The study employed a non-parametric approach to analysis, consisting of the Chi-Square test, descriptive statistics, and correlation analysis, to achieve the aims set forth for it. Entrepreneurs who responded to the survey were mostly male, young, and unmarried, with the vast majority holding a BSc or HND and having fewer than five years of experience in the business. The majority of entrepreneurs polled preferred paid work to starting their own businesses, with the bulk of those in the business world getting started due to a lack of other employment opportunities or out of pure curiosity. Most of these people also earned less than N5,000 weekly through a range of self-employment or small business activities. In the meantime, the majority of respondents said that the many taxes imposed by local, state, and federal governments are a hindrance to their businesses.

In 2019, Sutter, Bruton, and Chen did research on entrepreneurship as a means to solve global poverty. This research included a study and suggestions for more research. The importance of entrepreneurship in alleviating extreme poverty has been widely argued. However, there are divergent viewpoints on how to reduce poverty, and this has hampered research in various research fields. Over 200 articles on entrepreneurship and poverty alleviation were identified in this study, which looked at 77 leading scholarly journals from 1990 to 2017. The research presented in this article uncovered three main points

of view on how to alleviate poverty through entrepreneurship: remediation (actions that resolve immediate resource concerns), reform (actions that lead to meaningful institutional changes), and revolt (actions that lead to fundamental institutional changes) (actions that change the underlying capitalist-based assumptions of business). Analyzing the document opened up a wealth of research opportunities.

Shepherd, Parida, and Wincent's (2020) study on the link between entrepreneurship and reducing poverty focused on the health and education of the children of slum entrepreneurs. The authors of the research set out to examine how business ownership may help reduce poverty. But the long-term systemic and structural effects of entrepreneurship did not match the short-term effects that entrepreneurs saw when they used their own money to fill urgent resource gaps. So, for this report, they asked entrepreneurs what they thought about how entrepreneurial action can end poverty. To do this, they did a qualitative analysis of entrepreneurs in Indian slums to find out how important aspirations, role models, and their children's schooling were to them in their efforts to reduce poverty. High-density, low-quality housing can bring people together and help them work together, and slum entrepreneurs take advantage of this.

Ogidi (2014) carried out a study on people's entrepreneurship and poverty reduction. This said that the study area's female entrepreneurs were highly imaginative, able to quickly produce ideas, start businesses, and develop them to maturity. Women entrepreneurs should be aided with low-collateral business loans because they are more likely to repay those loans due to their responsible and trustworthy character. The following recommendations are relevant as a result of their previous conclusion: Women entrepreneurs should be assisted with business loans with no collateral assurance because they are more likely to repay those loans due to their accountable and credible nature; this would go a long way towards reducing poverty in the study region. Finally, the government should provide an enabling environment for women to fast-track business opportunities.

Sarker, Rahman, Cao, and Xu (2019) looked at how small businesses help people get out of poverty and how long street vendors can stay in business. In this analysis, a quantitative-qualitative hybrid approach was used. The work states that street vendors have a substantial impact on the economy of Bangladesh via their direct and indirect labor. There were three main ideas to take away from this examination. Starting off, street entrepreneurship was made possible by the fact that a large number of individuals were making money via street sales. Second, many street sellers' long-term sustainability and poverty were greatly aided by this little enterprise. Finally, the difficulties faced by street sellers in Bangladesh were investigated. The informal nature of street selling, the absence of a proper management system, the abundance of trash on the sidewalk, and the congestion it creates are all problems that city residents must deal with. If a well-thought-out plan for municipal administration were put into action, street vendors might serve as a model for the whole nation's economy.

3. Materials and Methods

In June 2022, a survey was done on the households in the Tubah Sub-Division of Cameroon's North-West Region to find out how agripreneurship (ENT) affected the reduction of poverty. The goal was to find out how agripreneurship helped people get out of poverty. The area of study is the Tubah Sub-Division of the North-West Region of Cameroon. Tubah Sub-division is located between latitudes 4°50' and 5° 20 N and longitudes 10°35' and 11° 59 E of the Green Wish Meridian (Ndenecho, 2009). The researchers adopted a mixed research design (survey and causal approaches were used to express future predictions of the phenomenon under study). Data was gathered with the help of a structured questionnaire and analyzed using both descriptive and inferential statistics. More specifically, this survey elicited information on the demographic profile of households, the innovative behavior of households towards their activities, attitudes towards agripreneurship, inheritance of family ventures, the need for achievement, and start-up objectives.

The causal relationships between the different aspects of agripreneurship and poverty reduction were captured using an effective model. The functional form of the model is given by:

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$PR = f(ENT)$ (1)

Where;

PR is poverty reduction, and

ENT is agripreneurship.

Equation 1 shows the direct functional relationship between poverty reduction and agripreneurship. In other words, equation 1 shows that agripreneurship does affect poverty reduction in Tubah Sub-Division.

$PR = \beta_1 SM_i + \beta_2 IFV_i + \beta_3 ATE_i + \beta_4 NA_i + \beta_5 M_{oi} + \varepsilon_i$ (2)

Where;

PR = poverty reduction

SM = Start-up motives

IFV = Inheritance of family venture

ATE =Attitudes toward agripreneurship, and

NA = Need for achievement.

M_o = moderating variable (innovativeness behavior)

Where ε_i is the idiosyncratic term that captured other possible factors that can affect poverty reduction; it is assumed to be constant.

Where β_1, β_2, β_3, β_4, and β_5 are parameters that measure the extent to which start-up motives (to make a living, personal achievement, to be own boss, to make more money, to be innovative, to be unable to find a paid job, etc), attitudes towards agripreneurship (admiration, embrace risk, handle uncertainty well, persuasive behavior, imaginative and creative behavior, etc.), the inheritance of family ventures, and the need for achievement (goal-oriented, job oriented, high profit-oriented, etc) relate to poverty reduction. The dependent variable, poverty reduction, was measured using the socio-economic dimensions of poverty (standard of living, health, and education). The models are specified without intercept because the Z score of any constant is zero. The theoretical expectations of the sign of the coefficients a priori are positive.

The Cronbach's alpha coefficients present the internal consistency coefficient for all the constructs**,** revealing that all the Cronbach's alpha coefficients are above 0.7, indicating that all the latent variables have good levels of internal consistency and hence reliability. In SEM, composite reliability is used to replace Cronbach's alpha (Bagozzi & Yi, 1988). It shows the degree to which the manifest or observed variables or indicators used to measure a latent variable effectively reflect the concepts being measured is determined by reliability. The dependability of this article was assessed using a composite Cronbach's alpha coefficient. Fornell and Larcker (1981), as well as Nunally and Bernstein (1994), advocated a reliability cut-off criterion of 0.7. Composite reliability is the most robust measure of internal consistency. These tests are commonly used to assess the degree of reliability between the items used in measuring the constructs. The paper has been analyzed using structural equation modeling.

4. Presentation and Discussion of results

4.1. Reliability of the Constructs

The measurement model adopted in this article was reflexive. The test result is presented in the table below.

Table 1: Construct Reliability and Validity Test Result

	Cronbach's alpha	rho_A	Composite reliability
ATE	0.789	0.791	0.840
IFV	0.825	0.771	0.858
IN	0.927	0.960	0.947
NA	0.863	0.860	0.880

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PR	0.885	0.914	0.928
SM	0.867	0.875	0.904

Source: Field Survey, July (2022)

The composite reliability for all constructs was substantially above the minimum cut-off requirements, indicating strong evidence of internal consistency (see Table 1). This result implies that the factors employed to measure the construct, such as attitudes towards agripreneurship, inheritance of family venture, innovativeness behavior, need for achievement, start-up motives, and poverty reduction were accurate.

4.2. Convergent Validity

Again, convergent validity is how well a group of measured items shows the theoretical latent concept that they were meant to test. The Average Variance Extracted (AVE) for each factor was examined for evidence of convergent validity. According to Fornell and Larcker (1981), converging validity exists when the average variance extracted exceeds 0.5. Only when using loading factors for reflexive measurement is convergent validity important. The test result is presented in the table below

Table 2: Test Result for Convergent Validity

	Average variance extracted (AVE)
ATE	0.517
IFV	0.612
IN	0.817
NA	0.602
PR	0.812
SM	0.655

Source: Field Survey, July (2022)

As the AVEs were much greater than the 0.5 thresholds suggested by Fornell and Larcker (1981), they should be considered statistically significant. The finding provides supporting evidence for the convergent validity of the article's constructs. This implies that the summed score for the constructs of attitudes towards agripreneurship, inheritance of family venture, innovativeness behavior, need for achievement, start-up motives, and poverty reduction reflect the theoretical latent construct they were designed to measure. In other words, the result of the convergent validity shows strong evidence of construct validity.

4.3. Discriminant Validity

Discriminant validity means that two latent variables that represent different theoretical concepts are statistically different.

Table 3: Fornell-Larcker Criterion

	ATE	IFV	IN	NA	PR	SM	IN x ATE	IN x NA	IN x SM	IN x IFV
ATE										
IFV	0.662									
IN	0.148	0.120								
NA	0.570	0.187	0.102							
PR	0.255	0.206	0.700	0.152						
SM	0.644	0.434	0.244	0.211	0.468					
IN x ATE	0.457	0.195	0.397	0.276	0.182	0.196				
IN x NA	0.202	0.271	0.099	0.085	0.108	0.139	0.103			
IN x SM	0.218	0.281	0.437	0.170	0.138	0.363	0.540	0.332		
IN x IFV	0.316	0.187	0.104	0.271	0.069	0.202	0.412	0.008	0.424	

Source: Field Survey, July (2022)

This type of validity, called "discriminant validity" (Carmines & Zeller, 1979), looks at how well different constructs can be told apart by using indicators that are more strongly linked to their respective latent variables. The diagonal components are the square root of the AVE for each of the constructs, while the off-diagonal elements are the pairwise correlation between constructs. By comparing the square of the

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average variance extracted (AVE) and the correlation (r^2) between the two constructs, that is, if AVE squared $>r^2$, therefore there is evidence of discriminant validity in the article. This discovery lends credence to the notion that the construct's indications are one-of-a-kind. That is to say, the indicators serve simply to indicate the theoretical construct under investigation and not any erroneous readings or other notions.

4.4. Bootstrapping Construct Result

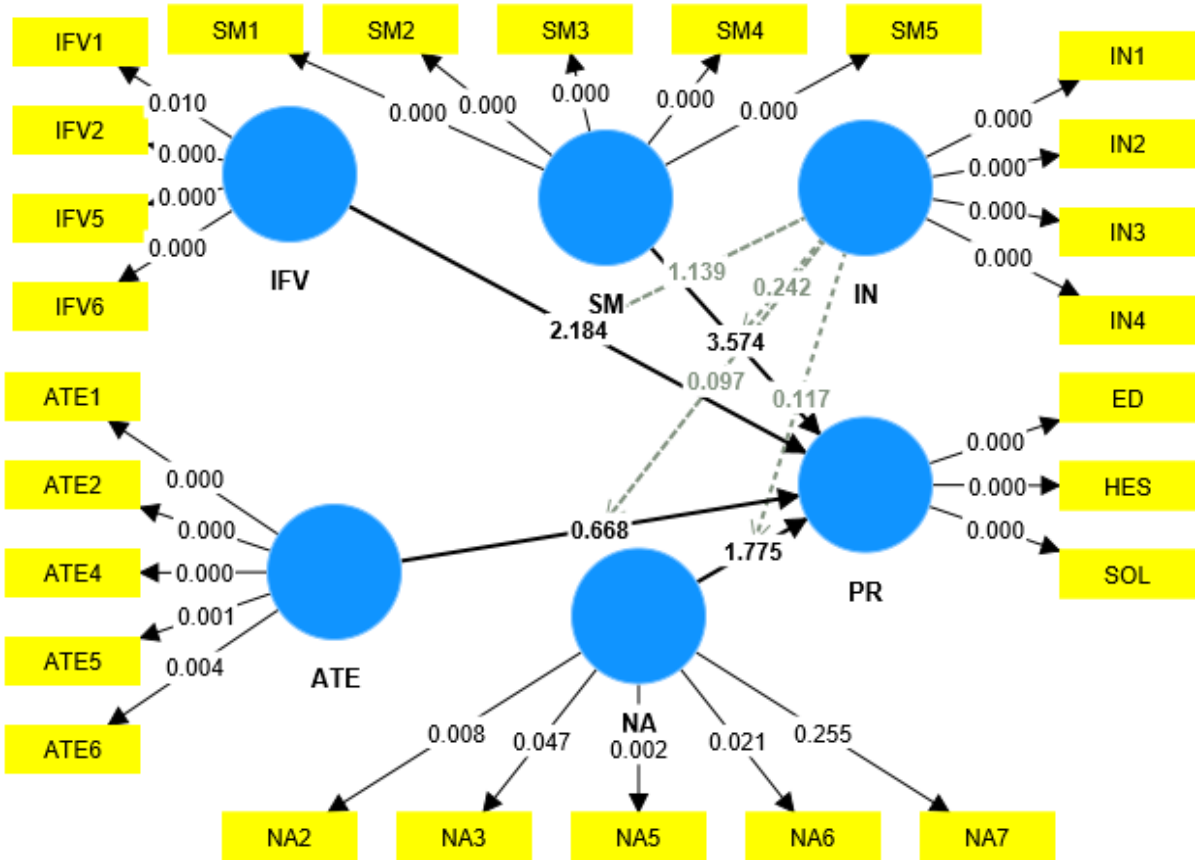

Fig. 1: Bootstrapping Construct Results

Source: Field Survey, July (2022)

Using a technique called bootstrapping, SmartPLS uses t-statistics to assess the importance of the inner and outer models. The endogenous factor in this model is poverty reduction, while the exogenous factors are attitudes towards agripreneurship, inheritance of family ventures, innovative behavior, need for achievement, and start-up motives. The bootstrapping t-statistics estimates were used to evaluate the suggested model further. It is observed from the construct that inheritance of a family venture, need for achievement, and start-up motive were statistically significant at 1%, 5%, and 10%.

4.5. Bootstrapping Path Coefficients Results

Source: Field Survey, July (2022)

Results from the construct showed that attitudes towards agripreneurship have a positive coefficient value, meaning there is a positive effect of attitudes towards agripreneurship on poverty reduction in Tubah Sub-Division of the North West Region of Cameroon. This result is statistically insignificant with a p-value of 0.504. This finding contradicts that of Kareem (2015), who revealed that the majority of the respondents

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(Agripreneurs) favored a salaried career over becoming an agripreneurs and that the majority of the respondents were into agripreneurship because of a lack of work options and personal curiosity, which made it simple for them to start their companies. Naminse, Zhuang, and Zhu (2018) revealed that entrepreneurship and poverty alleviation in China have a statistically meaningful and favorable relationship. According to the results, the positive effect of entrepreneur growth on RP alleviation is greater than that of quantitative growth, and the socio-cultural skills of respondents, rather than their educational level and financial resources, play a significant role in the success of farmers' businesses.

Table 4: Path Coefficients (Mean, STDEV, T-Values, P-Values)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
ATE -> PR	0.049	0.044	0.073	0.668	0.504
IFV -> PR	-0.121	-0.138	0.055	2.184	0.029
IN -> PR	0.661	0.652	0.063	10.460	0.000
NA -> PR	0.138	0.133	0.078	1.775	0.076
SM -> PR	-0.242	-0.251	0.068	3.574	0.000
IN x SM -> PR	0.032	0.021	0.132	0.242	0.809
IN x NA -> PR	0.009	0.023	0.081	0.117	0.907
IN x IFV -> PR	-0.069	-0.075	0.060	1.139	0.255
IN x ATE -> PR	0.011	0.016	0.116	0.097	0.923

According to Goel and Rishi (2012), neither markets nor governments, particularly in India, are enough to completely eliminate poverty. Instead, it may be essential to achieve the common goal of increasing capacity among India's poor via a tri-sectoral approach that acknowledges the complementarities between the public sector, the business sector, and the citizens' sector and fosters cooperation between these sectors. Okolie, Ehiobuche, Igwe, Agha-Okoro, and Onwe (2021) provided a basis for Igbo woman entrepreneurs' poverty alleviation and demonstrated proof of entrepreneurship for poverty alleviation viewpoint that differed from the mainstream entrepreneurship literature on poverty alleviation.

In the North West Region of Cameroon, the Tubah Sub-Division, it was found that inheriting family businesses made it harder to get out of poverty. If everything else stays the same, a one-unit increase in the inheritance of family businesses will cause poverty to go down less in the Tubah Sub-Division of Cameroon's North West Region. This finding is in line with our prior expectations. The finding is found to be statistically significant at 1%. This finding is not in line with Sarker, Rahman, Cao, and Xu (2019) revelation that small businesses contributed significantly to the elimination of poverty and the long-term viability of many street vendors.

It was also observed that innovativeness behavior has a positive coefficient value, meaning there is a direct effect of innovativeness behavior on poverty reduction in the Tubah Sub-Division of the North West Region of Cameroon. In Cameroon's North West Region, Tubah Sub-Division, an increase of one unit in innovative behavior will lead to an increase in the reduction of poverty. This result is statistically significant at 1%. Omoruyi and Chima (2020) revealed that increasing degrees of aggression, defensiveness, futurity, and proactiveness were all shown to improve organizational performance (aggressiveness = 0.65, proactiveness = 0.87, and proactiveness = 0.999, respectively). Gurhan et al. (2011) showed that innovations had a beneficial impact on business performance in the industrial sector. As a result, business leaders were urged to focus more on innovation as a means of gaining a long-term competitive advantage.

More results from the data analysis showed that the need for achievement has a significant and positive effect on reducing poverty in the Tubah Sub-Division of Cameroon's North West Region**.** This is an indication that a unit variation in need for achievement will vary poverty reduction in the Tubah Sub-Division of the North West Region of Cameroon, everything being equal. This is in line with the findings of Sutter, Bruton, and Chen (2019), who identified three main approaches to reducing poverty through entrepreneurship: remediation (actions that address immediate resource concerns), reform (actions that

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lead to meaningful institutional changes), and revolt (actions that lead to fundamental institutional changes) (actions that change the underlying capitalist-based assumptions of business). The authors of this article, Lee and Rodrguez-Pose (2021), employed an instrumental variable technique to confirm their claim that entrepreneurial activity involving tradable goods reduces poverty and increases earnings for non-entrepreneurs. However, the researchers found that the economic benefits from non-tradeable entrepreneurial activity were insufficient to significantly reduce poverty levels.

It was also found that the coefficient for start-up motives is negative, which means that start-up motives indirectly helped reduce poverty in the Tubah Sub-Division of Cameroon's North-West Region. This finding is however statistically significant at 10% given that the p-value is 0.076. Shepherd, Parida, and Wincent (2020) revealed that poor-quality, high-density housing has the potential to foster neighborhood engagement and collaboration, and slum entrepreneurs take advantage of this. Adebayo and Nassar (2014) showed that individuals engaged in micro- and small-business entrepreneurship in the Ibadan metropolis had a 39 percent higher chance of earning more than US$1.25 per day with exp (3) = 1.385. The effect may have been greater if not for certain socioeconomic, infrastructure, and management problems, according to the report. The article suggests, among other things, that youth entrepreneurship be encouraged, that government market development and support services be made more widely known, that access to and use of business premises be liberalized, that manufacturing costs be reduced, and that infrastructural facilities be improved. According to Vukenkeng and Almut (2019), female entrepreneurship was also seen as a crucial element in Cameroon's national poverty reduction efforts.

In the Tubah Sub-Division of Cameroon's North-West Region, it was found that inheriting family businesses had a negative effect on how innovation helped people get out of poverty. Everything being equal, a unit increase in the moderation effect of innovation on the inheritance of family ventures will bring about a decrease in poverty reduction in the Tubah Sub-Division of the North West Region of Cameroon. This finding is not in line with our prior expectations. The finding is found to be statistically significant. Vukenkeng and Mbella (2014) revealed that entrepreneurship has a substantial negative effect on poverty in Cameroon and that entrepreneurship and poverty reduction have a significant bi-directional positive causality.

Results from the construct also showed that the moderation effect of innovation on attitudes towards agripreneurship has a positive coefficient value, meaning there is a positive effect of attitudes towards agripreneurship on poverty reduction. This result is statistically insignificant with a p-value of 0.504. More results from the data analyses revealed that the need for achievement exerts a positive moderation effect of innovation on poverty reduction. This is an indication that a unit variation in the moderation effect of innovation on the need for achievement will vary poverty reduction, everything being equal. It was also observed that start-up motives show a positive moderation effect of innovation on start-up motives for poverty reduction. This finding is, however, statistically insignificant. Sarker, Rahman, Cao, and Xu (2019) revealed that small businesses contributed significantly to the elimination of poverty and the long-term viability of many street vendors. Francis, Nassar, and Mehta (2013) indicated that informal lending processes would gradually expand and formalize venturing. Entrepreneurs, lending companies, and development agencies may use the information in the article to create innovative market and collaboration plans that will inspire enterprising individuals in disadvantaged communities.

5. Conclusion and Policy Implication

This article set out to determine the effects of agripreneurship on poverty reduction in the Tubah Sub-Division of the North-West Region of Cameroon. The analysis from the construct showed that the need for achievement and innovative behavior in agriculture have a significant positive effect on poverty reduction in the region at 10% and 1%, respectively, while attitude towards entrepreneurship and the start-

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up motive have positive but insignificant effects on poverty reduction. On the other hand, the inheritance of family ventures has a significant negative effect on poverty reduction in the sub-division**,** at 1%. In terms of the moderation effect of innovation, attitudes towards agripreneurship, the need for achievement, and the start-up motive, they portray an insignificant positive effect on poverty reduction. Also in this regard, the inheritance of family ventures shows a negative, insignificant effect on poverty reduction in Tubah.

The researchers, therefore, conclude that these findings are important and should not be ignored when looking at how agripreneurship helps reduce poverty in Tubah Sub-Division and Cameroon as a whole. From a policy perspective, a number of policy implications emerge.

Firstly, attitudes towards agripreneurship in the subdivision can be shaped toward encouraging entrepreneurship through practical entrepreneurship education. In this situation, households should be encouraged to turn their activities for survival into things they can sell for money. Members of households with paid jobs should be intelligent enough to keep these jobs besides their own businesses, which they run in the evenings and on weekends. People, families, nongovernmental organizations, and government agencies in the subdivision should start and take part in entrepreneurship training in areas like spotting opportunities, making business and development plans, and learning the basics of running a business.

Secondly, inherited family ventures influenced poverty reduction in the sub-division negatively. Recalling that sometimes services and products are beyond the reach of the people living in the sub-division, innovation and inclusive business models offering affordable products and new jobs could be a way out. Such business models need the support of all development stakeholders in the sub-division and beyond. To strive for a desired level of success, there is a need for persistence, giving priority to urgent problems, and proper allocation of resources during start-up.

Micro, small, and medium enterprises, youth empowerment, and the collaboration of government, university, and industry are the key tools for agripreneurship development, which is stimulating employment and eventually reducing poverty. It is suggested that agripreneurs be helped by giving them easier access to bank loans and other forms of financing in the form of "soft loans." To better equip the public with the entrepreneurial skills necessary to contribute to economic growth, the government should create and fund additional entrepreneurship and vocational training centers. Lastly, security of life and property, provision of infrastructural facilities like a constant power supply, good health care services, good roads, and drinkable water, among others, should be guaranteed by the governments of Cameroon for better performance of agripreneurs at reduced cost and to minimize losses.

6. Limitations and Direction for further study

The factors affecting poverty reduction are many, and the researchers have concentrated on a few only. They also concentrated on a very small area of the Tubah Sub-Division of the North West Region of Cameroon, implying that the focus of this study is limited to a small geographical scope. The researchers, therefore, suggest that other studies be done with the same variables on poverty for a wider context. In addition, other variables can be added to the model to make it more comprehensive.

Authors' Contribution:

Paul Akumbom came up with the idea and made the tools for collecting the data. Peter Ngek Shillie wrote the introductory paragraphs and did the literature review. Mary Juliet Bime Egwu and Paul Akumbom worked on the methodology, data collection, and analysis. Peter Ngek Shillie did the first review of the draft manuscript, and Mary Juliet Bime Egwu did the second review. Paul Akumbom did the final review and submitted the manuscript for consideration.

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