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International Journal of Agricultural Studies (IJAS)
ISSN 2958 - 4132 (Online)
Vol.2, Issue 1, pp 21 – 44, 2023

Determinants and Impact of Youth Involvement in Agricultural Sector: Evidence from Young Farmers Beneficiaries of PEA-Youth and PCP AFOP Public Programs Living in Central and Littoral Regions of Cameroon

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Article's History

Submitted: *19th January 2023*
Accepted: *4th February 2023*
Published: *15th March 2023*

Abstract

Aim: Agriculture continue to be an important sector for African countries' development and for Cameroon development in particular. This study aimed at investigating determinants of youths' involvement in agriculture and their impact on agriculture income for different entry mode.

Methods: The study used both qualitative and quantitative data from young farmers' beneficiaries of PEA-Youth and PCP AFOP public programs living in Central and Coastal Regions in Cameroon.

Results: The study found out that age, number of dependent children, matrimonial status, presence of parents in agriculture, education, distance between farm and market, migrate from urban to rural before and the presence of public program for integration in agriculture are keys determinants of the different involvement ways in agriculture in Cameroon. Besides, qualitative analysis shows that farmers declare more pull or positive factors that have led them to entry into agriculture and amongst these factors the reasons such as profitability and autonomy of food security for the family are the most common.

Conclusion: It is more profitable for farmers to adopt agriculture by integration as first work or by mobility, rather than by diversification.

Recommendation: Public programs should promote agriculture by integration as first work or by mobility and target that kind of profile during the selection process of youth.

Keywords*: Agricultural sector, youth, entry mode into agriculture.*

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1.0 INTRODUCTION

The persistence of poverty and hunger in most developing countries, has prompted various works in the scientific community, which has renewed interest in the agricultural sector. According to Timmer (2005), three factors explain this renewed interest in agriculture: first, the development of agricultural biotechnology; then new opportunities for farmers in developing countries to modify low-value crops and new products in order to benefit from supermarket demand; finally, the growth of the agricultural sector will have been an important ingredient for the inclusion of poor in economic growth.

Adoption of this renewed interest in agriculture is visible in Cameroon through the Growth and Employment Strategic Document (GESP) and more recently National Development Strategy 2020 – 2030 (NDS30). The objectives of those strategies include mainly the modernization of the production system, and more specifically at rural sector the launching of a vast program to increase agricultural production in order to satisfy not only the food needs of the population but also agro-industries. This program will: (i) make available and available factors of production including land, water and agricultural inputs; (ii) promote access to technological innovations, notably by strengthening the research/extension link; and (iii) develop the competitiveness of production chains (MINEPAT, 2020).

Concerning particularly employment, demographic characteristics of Cameroon population shows a high number of young people entering the labor market each year. The government have to put these young people to work for seizing demographic dividend. Statistics from Employment and the Informal Sector Survey (2010) highlight the low integration of young people into the labor market with an unemployment rate of 6% in the age group 15-34 years largely above the rate for the entire population at 3.8%. For all age groups, the primary sector, largely represented by the informal agricultural sector, is the largest employer in the country with 53.3% of employed workers. However, young people (15-34 years) are the ones who engage less in this sector with only 46.4% of young people in that sector. Given the agricultural potential available in Cameroon with already available, the agricultural sector is *a priori* more likely to absorb youth unemployment than other sectors and this rejuvenation of the agricultural population could improve the modernization of the sector.

Many studies exist on the determinants of agricultural outcomes in the developing world (Nin-Pratt, 2015). However, people who involves in agricultural sector does not follow the same way when joining the sector and that pace could have a significant effect on agricultural productivity. Indeed, following Pedelahore (2012), having operated in non-farm activities before getting involved in farm activities could increase capacity of farmer to access a more important capital for agriculture than farmer who only knows agriculture since their entry in labor market. Some researchers have investigated the impact of non-farm activities done in association with agriculture on agricultural outcomes (Jiang et al., 2022; Adelekan & Omotayo, 2017; Nasir & Kotu, 2014), few researches have tackled the impact of non-farm activities done before entering in agricultural sector on agricultural outcomes. It is considering those aspects that the current study research is seeking to respond to the question: What are the determinants of involvement into agriculture in Cameroon? And which mode of involvement have the higher impact on agricultural outcomes?

2.0 LITERATURE REVIEW

Job mobility covers several dimensions: change of position, establishment or company, profession or level of qualification for people in employment, or even transition between unemployment, inactivity, employment (Amossé, 2003; Estrade, 2006; COE, 2009 all cited by

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Lainé, 2010). Several facets of professional mobility emerge from this definition and professional mobility towards the agricultural sector since it is intersectoral differs from professional mobility within companies.

A large literature exists on the determinants of job mobility and one can distinguish three main groups: Economics factors, social factors and Environmental of geographical factors. Whatever the type of determinant considered, they could be considered whether as push or as pull factors (Lee, 1966 cited by Mumpasi, 1995; Van den Broeck, 2019) as the disadvantageous or negative situation that caused mobility or as an opportunity that motivated the latter.

2.1 Economics Factors

The analysis of labor mobility has been widely studied in economics and one can distinguish between factors linked to supply and those linked to demand in the labor market.

On demand-side factors, neoclassical economists in the theory of stages of growth argue that labor market forces impose themselves on individuals who automatically move from sectors with low labor productivity to sectors with high labor productivity (Lewis, 1954; Fei & Ranis, 1961; Jorgenson, 1961; Johnston & Mellor, 1961; Schultz, 1964). Thus, according to the formulation of Harris and Todaro (1970) an individual will agree to leave one sector and settle in another if the expected net gain from settling in this new sector is positive. Professional mobility to the agricultural sector will therefore be observed if this sector records a significant increase in labor productivity.

Conversely, there are less favorable situations on the market which push individuals to leave a sector of activity. Following the work of Mumpasi (1995), the study by Gubry et al., (1996) conducted in Cameroon shows that mobility to the agricultural sector located in the countryside takes the form of return migration after failure to enter the highly competitive urban labor market. The agricultural sector presents itself here as the only way out for a young person to enter the labor market.

Moreover, even young people who succeed in finding a job in a modern environment can develop mobility strategies towards other jobs depending on the quality of their job. The job competition model developed by Kalleberg (2007) argues that job characteristics determine the decision to seek another job. This effect of job quality on jobs mobility is highlighted by Fomba, Mboutchouang et Nkoumou (2016) which using data from employment surveys in Cameroon, Democratic Republic of Congo and Chad founded that being engaged in jobs characterized by low earnings, a forced part-time work and a verbal of no contract situations, increases job seeking and intention to change job. Further, Fomba et *al*. (2016) by adding other indicators to measure the quality of employment, found that having a job in the informal sector and not having access to paid holidays increases the intention to change jobs.

The state also intervenes through public policies aimed at improving labor productivity, through mechanization, the provision of improved seeds at low prices, guaranteed price mechanisms and the training of agricultural producers can increase profits in this sector and generate a surge in mobility towards the agricultural sector.

The institutional environment, and in particular labor legislation, also plays an important role in encouraging professional mobility, depending on whether it leans more for flexibility or for the security of workers. Thus, the role played by legislation on professional mobility suggests that strict legislation on job protection increases the costs of dismissal for the employer, thereby reducing professional mobility. Conversely, less strict legislation gives employers more power to change the number of employees in their company as they see fit (Chung, 2005). The

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Cameroonian labor law because it leaves great flexibility (layoffs) to private sector companies to adjust in case of economic recession, is likely to create an environment on the labor market favorable for the proliferation of job mobility.

On the side of factors linked to the labor supply, authors such as Becker (1992), and Lainé (2010), by mobilizing the theory of human capital have supported the idea that education and vocational training have an effect on occupational mobility. Thus, if an individual has received training related more to the agricultural sector, he will have a better chance of moving to this sector than those without any training relating to this sector of activity. Nevertheless, the level of education as it rises can change the perception of agriculture. The time spent in a business can however, influence the mobility chances of individuals in two ways. Indeed, according to Dupray et Recotillet (2009) age operates on professional mobility via two contradictory forces: one associated with biological age which includes the idea of obsolescence, of a deterioration or degradation of aptitudes from a certain threshold, variable according to the profile of the individuals, and the other associated with the experiential age and bearer of know-how.

2.2 Social Factors of Job Mobility

The social science literature highlights two groups of social determinants of professional mobility: those linked to social origin, generally considered by the socialization environment or the socioeconomic position of parents and those linked to other aspects of family life of individuals.

One can classify the role of social origin on professional mobility to the agricultural sector in the theory of structuralist constructivism. According to this theory, most behaviors, aptitudes and social reactions are not natural data but result from a particular position in society, and come under what Bourdieu calls the strategies of reproduction of heirs (Bourdieu, 1993 cited by Mbondji, 2005). Thus, individuals belonging to a social class, or whose parents have a certain level of education or an occupation type tend to develop mechanisms to reproduce the system of the previous generation (Impicciatore & Tosi, 2019).

On the basis of this hypothesis of social reproduction, individuals whose parents work or have worked in the agro-pastoral sector, even if initially they may start their professional career in a non-agricultural sector, the inheritance following the death of parents can lead them to leave their previous employment in order to perpetuate the family farm. Also, Nelson (1976) maintains that the family also facilitates, via the assets it owns, particularly land and access to credit, the establishment of members in the agricultural sector (Nelson, 1976; Shady Gerardo & Pasquier - Doumer, 2008).

If the social origin of individuals is often considered in studies on professional mobility, considering the biographical events experienced by the individual is little or not at all considered. Social science researchers, noting that the professional and extra-professional dimensions all contribute to the job satisfaction of individuals, argue that the latter is considered in the process of professional mobility (Kristensen & Westergaard-Nielsen, 2004;). More precisely, the formalization of Feldman and Ng (2007) advocates that job satisfaction is linked to the capacity of work to integrate perfectly with other aspects of life, which can be broken down into three aspects. The extent to which work complements other areas of the person's life, for example their family situation or interests (“Fit”); the relationship with people and activities at work (“Links”); and the personal costs associated with their abandonment (“Sacrifice”).

Indeed, mobility can have a negative effect on the individual’s perception of job security and the perception of job security affects the plans of individuals and families for the future such as

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(marriage, purchase of a house or decide when to have children ... etc.). The marital status is also a determining element of professional trajectories insofar as couples are subject to joint decision-making processes, which complicate mobility (Bernela, 2017). This development underlines that the mobility decision contains a significant part of subjectivity since it depends on the perception of the agricultural sector and the social and professional aspirations of individuals.

Conversely, to the extent that marriages and births modify the sharing of responsibilities between spouses, and therefore generate direct and indirect costs for the latter, they are also likely to generate professional mobility (Dupray & Recotillet, 2009; Lequien, 2012). Along with the number of children, other authors also highlight the influence of children's age on professional mobility. The work of Azoulay, Gangulin and Graff (2017) on the professional mobility of scientists in the United States show to this effect that the latter are less willing to travel when children are between 14 and 17 years old, for fear of disrupting their social network, and that these provisions are further reduced for mothers than for fathers. Professional mobility can therefore be achieved both in response to biographical events and in preparation for their occurrence.

Alongside the shocks of marriage and births, the literature also highlights the effect of deaths and illnesses of household members among the social determinants of job mobility (Van den Broeck & Kilic, 2019). Indeed, the constraints encountered in employment can be exacerbated by the deaths and illnesses that active and healthy household members have to endure and pushes them to reorient their professional trajectory. Moreover, the occurrence of demographic events is linked to biological and physiological time if we consider the ages of marriage and fertility and age is therefore variable supporting biographical events that come to weigh in arbitrations economic issues around professional mobility (Dupray & Recotillet, 2009).

2.3 Geographical Characteristics: Place of Residence, Access to Markets and Neighborhood Effects

Geographic location is an important variable in job mobility. It can intervene by the spatial discordance or by the neighborhood. From the point of view of the theory of spatial mismatch between places of residence and place of work, the distance between residence and employment can influence the access of individuals to certain jobs (Vandermissen, Villeneuve & Thierault, 2001). Thus, living near an employment area decreases the costs of transport and job prospecting and reduces the duration of unemployment (N'Guessan, 2015).

However, to counter the spatial mismatch between residence and employment is to increase the professional mobility of workers through the availability and use of various means of transport, particularly public transport. This is how a study by Cooke (1997) shows that the temporal and spatial inefficiency of public transport apparently reduces the accessibility of jobs, whether the area of residence is rich or poor in employment. Consequently, the agricultural sector mainly located in rural areas would be more integrated by individuals living in this environment. Transport also plays a role in the flow of crops, and the poor condition or lack of communication between the countryside and the towns would discourage young people from engaging in agriculture.

This theory leads to the spatial confinement thesis which maintains that women, given their roles in households, will tend to choose jobs close to their places of residence even if these jobs are relatively less paid, compared to men who are more able to move (Vandermissen et *al*., 2001). There is therefore an interaction between gender and area of residence in the choice of

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mobility to the agricultural sector and women living in rural areas may have a greater propensity than men to engage in the agricultural sector.

Transaction costs, of which transport is a major component, play an important role in agricultural activity. Thus, the literature in economics distinguishes between the costs of transporting inputs and the costs of transporting products. Zewdie et al. (2020) studying the effects of irrigation on farmers income in Ethiopia shows that irrigation improves cash income from crops, but the latter requires more intensive use of inputs and easier sale of crops. However, he underlines that this more intense use of inputs and this ease of selling products is conditioned by the distance to the markets. Along the same lines, Kopper and Jayne (2019), in an analysis of the effect of rising fertilizer prices on farmers in Kenya, shows that good access to procurement markets for inputs facilitates the adaptation of farmers. In other words, access to markets plays a key role in the profitability of a farm and good market access is likely to encourage the engagement of young people in agriculture.

Also, there may be neighborhood effects between two geographic areas, defined by Decamps and Gaschet (2013) as the existing relationships between the behavior of households or individuals and the socioeconomic characteristics of their living areas. This relationship can have positive or negative effects. While Wahba and Zenou (2005) suggest that the higher the population density of the region of residence, the more information about vacant jobs circulates, Ellen and Turner (1997) argue that neighborhoods where few people find good jobs can have a detrimental effect on the behavior of populations (N'Guessan, 2015).

By exploiting this literature, N'Guessan (2015) finds for the case of the Ivory Coast that the presence of an industrial zone, which represents an employment area in the municipality of residence, increases the intensity of research into use. From this literature, it comes that mobility towards the agricultural sector could be encouraged by a multiplication of success stories in this sector. Following this development, Amare, Mariara, Oostendorp and Pradhan (2019) in their study on the participation of smallholder farmers in the export of avocados in Kenya found that living near a well-organized group of farmers increased the chances of participating in such markets.

3.0 DATA AND METHODOLOGY

This study targeted the age group of 20 - 45 years old at the time of the survey beneficiaries of two programs Young Program for Agricultural Entrepreneurship (PEA – Jeunes) and Program of Support for the Renovation and Development of Vocational Training in the Agriculture, Livestock and Fisheries Sectors, Consolidation and Sustainability Phase (PCP AFOP). The notion of young person is the subject of a different understanding depending on the context. In Cameroon, young people are considered to be people aged between 15 - 34 years. The chosen age group starts at 20 since the starting age of working life in Cameroon is 15, and we considered an interval of five years for mobility in employment. Also, the maximum age is set at 45 for two reasons:

First, the programs chosen often select older age groups in a context of precariousness to help poor populations. Then, the former cohorts of beneficiaries of targeted programs (PEA – Jeunes and PCP AFOP) contain information on people of an age often outside the 15-34 age group from the lived experience of these people can learn lessons for young people. The study used both quantitative primary data and primary data from qualitative collection. The qualitative collection will precede the quantitative survey and the information collected will make it possible to better formulate the questions, as well as the associated modalities, in the

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quantitative questionnaire administered to young farmers. The quantitative survey that was implemented after the qualitative survey and covered a larger sample of farmers.

The study also used a mixed method using both quantitative and qualitative data collected. Qualitative collection precedes the quantitative survey and the information helps to better formulate the questions, as well as the associated modalities, in the quantitative questionnaire administered to young farmers. The quantitative survey that was conducted following the qualitative survey will cover a larger sample. The Center and Littoral regions, which are respectively home to the country's largest cities (Yaoundé and Douala).

3.1 Qualitative Analysis

3.1.1 Data sources and sampling

The qualitative data collection was involved 80 interviews from 70 young farmers and 10 actors involved in the supervision of young people, in particular agricultural delegates, village chiefs and those responsible for supervision young people from the AFOP Programs and PCP. As the PCP AFOP program trained twice as many women as men, this study's analysis was based more on interviews with the latter in order to have all the situations of occurrence of events demographics, either a distribution of 12 women and 22 men. In addition, in order to have regional representativeness in the analyses, the authors multiplied said distribution by two, either 68 young farmers ((12+22)*2) for the two regions, rounded up to 74 interviews and of which 70 finally could be used in the analyses.

Local and administrative authorities, as well as those responsible for the PCP AFOP public program, because of their overview of the deployment of farmers could master the influence of demographic events on mobility to the agricultural sector without being in large numbers. This is how the principle of saturation was not applied at their level and a number of 2 or three was sufficient per actor. At the level of the managers of the PCP AFOP Program, a number of 6 were questioned in order to enrich the developments and with regard to the availability and the will of the latter to give their point of view.

Table 1: Distribution of the sample of qualitative data collection

Type of stakeholders	Composition	Numbers
Local Authorities (administrative and traditional)	Agriculture Delegate	2
	Training Team of PCP AFOP Program Rural Training Centers	6
	Chief of villages	2
Youth engaged in agriculture	Women	23
	Men	47

3.1.2 Method of qualitative data analysis

After data collection, the information collected and transcribed literally. Then, cross-sectional analysis of the data obtained in all the sites and for the categories of respondents was carried out. The qualitative analysis method used in this study was thematic analysis. The relevant verbatim were extracted from the interviews, then codified and related to the issue of professional mobility towards the agricultural sector.

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3.2 Quantitative Analysis

3.2.1 Sampling and data collection

The questionnaire was administered to respondents on Android phones, using the Open Data Kit application (ODK collect). The calculation of the sample size was based on the relationship applicable in the case of random draws without replacement, since an individual was only be surveyed once.

$$n = \frac{z^2 \times P(1-P)}{e^2 + \frac{z^2 \times P(1-P)}{N}}$$

In this relationship:

- *N designates the total number of farmers benefiting from the targeted programs (PEA-Jeunes, and PCP AFOP) in the Center and Littoral regions, 1435 of which 51% (731) in the Center region and 49% in the Littoral (704) people according to the sampling base provided by the program;*
- *e is the fixed margin of error of 3.75% below the threshold of 5% usually used in social sciences;*
- *z is the confidence level (at 95%, z=1.96);*
- *P is the proportion of people who currently practice agriculture but come from another sector of activity. According to statistics from the Employment and Informal Sector Survey in Cameroon (INS, 2010), this proportion is estimated at 14.44%.*

Applying the formula with these parameter values, a sample size of 273 participants was obtained. Multiplying this result by 2 for good representativeness results in both regions, a final sample size of young people at survey was 546 (273*2). The proportional distribution of farmers by region then gives 268 young people for the Littoral region and 278 young people for the Center region. In the end, the survey made it possible to cover 539 young farmers, i.e. an overall survey coverage rate of 98.63% (539*100/546), with a coverage rate of 98.88% (265*100/ 268) for the Littoral region and a coverage rate of 98.56% (274*100/278) for the Center region.

3.2.2 Method for quantitative data analysis

a. Descriptive analysis

The analysis consisted of tabulating the different variables of the study. Indeed, the distribution of each variable suggests recoding. It is at this level of analysis that missing values were detected and treated. When the missing values concern more than 10% of the individuals in the final sample, the variable have been excluded from the analysis and, in the opposite case, only the available observations will be worked on. The variables to be introduced into the model will however be recoded in certain cases in order to facilitate the analysis.

b. Econometric modelling

The multinomial logit model insofar was utilized. The expression of the econometric model, based on the developments of Greene (2011) is as follows: Let P_{ik} be the probability of having migrated to the agricultural sector for individual *i*.

$$P_{ik} = Pr[Y_i = k|X_i] = \frac{e^{\beta_k{}' X_i}}{\sum_{k=1}^{3} e^{\beta_k{}' X_i}} \quad (1)$$

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Where:

Y_i is the entry mode in agriculture chosen by individual *i;*

X_i represent the matrix of individual characteristics of *i;*

and β_k the column matrix of coefficients associated to each characteristics of individual *i*.

The researchers performed a multinomial logit function to connect the relative likelihood of enrolling in the US mode *k* to the independent variables X_i having influenced the input mode of the individual *i* given by:

$$ln\left(\frac{P_{ik}}{P_{i1}}\right) = \beta_k{}'X_i \;\; k = 1,2,3 \; et \; 1 \; modality \; of \; reference \quad \text{.....(1)}$$

Avec $X_i = Z_i + Z_{f,i} + OPPCONST_i + Z_{e,i}$

Two columns matrix have operationalized the socio-demographic characteristics of the respondents: the vector of the individual characteristics and the vector of family characteristics.

Z_i was the column matrix of the individual characteristics at the time of mobility and includes the age group (AGEGROUP), sex (SEX), level of education (EDUC), the field of vocational training (training specific to the practice of Agriculture yes or no) (TRAINAGRI).

$Z_{f,i}$ was the column matrix of family characteristics and social capital composed of the number of dependent children (NBCHILD), change in matrimonial status (MARY), death or the disease of a household member (parent, or spouse) measured by the DMP and DMC variables, the presence of the father in agriculture (FATHERAGRI) and the presence of the mother in agriculture (MOTHERAGRI).

$OPPCONST_i$ represent the column matric of the opportunities and constraints that have led to entry into agricultural sector. It includes the difficulties to find a job elsewhere and the lack of training in other domains (CONST), the expected gain of mobility towards agricultural sector (GAINESP), the support of public programs accompanying young people in their installation in agriculture (PUBSUPP), the presence of relatives in the Sector (OPP) and love or passion for the sector (LOVE).

$Z_{e,i}$ The time set for transporting farm products to the markets (TIME) and the distance between the agricultural market exploitation for the flow of products (DIST). It has also been took into consideration the influence of the change of place of residence on entry into the agricultural sector (CHANRESID).

Most variables before entry in the agricultural sector were also introduced in the model. For the variables of marriage before and after entry into the agricultural sector and the number of dependent children before and after entry into the agricultural sector, included in Z_i and $Z_{f,it}$ vectors, will be Introduced both delayed and projected to compare the influence of the reaction and preparation of demographic events in the process of professional mobility towards the agricultural sector. Nevertheless, we only consider the delays and projections of a year, as follows:

$$Z_i = \beta_{1k}AGEGROUP_i + \beta_{2k}SEX_i + \beta_{3k}MARY_i + \beta_{4k}EDUC_i + \beta_{5k}FORMPRO_i \quad \text{.....(2)}$$

$$Z_{f,it} = \beta_{6k}NBCHILD_{i,Avant} + \beta_{7k}NBCHILD_i + \beta_{8k}DMP_{i,Avant} + \beta_{9k}DMC_{i,Avant} + \beta_{11k}FATHERAGRI_{i,Avant} + \beta_{12k}MOTHERAGRI_{i,Avant} \quad \text{.....(3)}$$

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$$OPPCONST_i = \beta_{13k}OPP_i + \beta_{14k}CONST_i + \beta_{15k}GAINESP_i + \beta_{16k}LOVE_i + \beta_{17k}PUBSUPP_i \quad \ldots\ldots(4)$$

$$Z_{e,i} = \beta_{18k}CHANRESID_i + \beta_{19k}DIST_i + \beta_{20k}TIME_i \quad \ldots\ldots(5)$$

After that estimation, the researchers investigated the impact of the entry in agricultural sector by mode of entry using treatment effect model with propensity score matching method. In this study, the researchers considered the value of the production a farmer has gain in their last commercialization campaign in unit of XAF.

Let Y_i the agricultural outcomes of i[th] subject. The treatment effect is defined by

$$\tau_i = E[T_i(1) - T(0)]$$

And the population average treatment effect (ATE) is defined as**:**

$$\tau_{ate} = E[T(1) - T(0)]$$

The entry mode T_i is here the treatment assignment for i[th] subject (i=1…n) and for each entry mode $T_i = 0$ if the subject is entry in agriculture by this mode and zero whether not. Be given the fact that we have three entry mode here, we have so three treatment for each entry mode.

The average treatment effect among treated (ATT) was defined as:

$$\tau_{att} = E[T(1) - T(0)|Y = 1]$$

In practice, it is impossible to observe both $T_i(1)$ and $T_i(0)$ for the same subject. So in general, the average treatment effect is estimated, using notation of Angrist and Pischke (2009), by

$$E(T(1)|X, Y = 1) - E(T(0)|X, Y = 0)$$

This expression is equal to

$$E[Y(1) - Y(0)|Y = 1] + E(Y(0)|X, Y = 1) - E(Y(0)|X, Y = 0)$$

Where the first term refers to average treatment effect on treated and the second term equal to the selection bias. Under the assumption of Rosenbaum and Rubin (1983) which state that $(T(1), T(0))$ the potential outcome variables are independent of Y $(i.e\ (T(1), T(0)) \perp Y|X)$, the selection bias is zero and $\tau_{ate} = \tau_{att}$. X refers here to the determinants of entry in agriculture identified in literature review. Because the agricultural outcomes here was estimated by a continuous variable and treatment variable is a dichotomous variable, we measured the link between two variables by a one-way tests comparison of means. The propensity score was defined as the conditional probability assignment to treatment group, given the covariates, e(x) = Pr (T=1|X=x).

4.0 RESULTS OF THE ANALYSIS

4.1 Farmers Opinions About the Reasons of Involvement in Agriculture

With regard to the literature on mobility, the reasons for the commitment of young farmers integrated into the PCP AFOP program in the agricultural sector was presented by distinguishing two groups:

Attraction factors or opportunities (pull factors) and repulsion factors or constraints (push factors). The pull factors and index include: (1) Love or passion; (2) the presence of relatives in the sector; (3) state support through the PCP AFOP program, which is an opportunity to facilitate the entry of young people into the agricultural sector and (4) the search for gain, autonomy or food self-sufficiency for the family. Among the push factors or constraints that

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led to entering the agricultural sector and codes, we have: (5) the loss of employment following a dismissal, bankruptcy or restructuring of the company of the previous employment; (6) difficulty finding a decent and stable job and (7) lack of means to continue school or train in non-agricultural fields.

Overall, the analysis of the interviews conducted with farmers shows that the reasons declared are more the attraction factors that have fueled their inclination for the agricultural sector (77.14%) followed by farmers who declared both factors limiting the exercise of another activity and those motivating entry into the agricultural sector (20%). Two (2) farmers mentioned only push factors.

Table 2: Distribution of farmers by factors of mobility toward agriculture declared

Type of factors declared	Number and percentage of farmer by type of factors declared	
	Number	Percentage (%)
Pull factors only	54	77.14
Push factors only	2	2.86
Combination of pull and push factors	14	20.00
Total	**70**	**100**

Sources: Authors' field data

Thus, in the following presentation, we will first present the opinions from farmers who have given as the reason for migration to the agricultural sector push either factors or pull factors, before finally presenting the farmers who have given a combination push and pull factors.

4.1.1 Farmers that only declared pull factors

Regarding the farmers who only declared only pull factors, the analysis of the interviews highlights the highest occurrence of the search for profit, autonomy or food self-sufficiency for the family. The following extracts from interviews with farmers highlight this motivation:

> "*I got into animal husbandry, how can I say that, I have my 500 cents in sewing, I can't spare that, better buy my chicken, my piglet, I start to fatten it up, I know that later it will happen to me.* ". 30-year-old farmer with secondary education and living in the Center region.

> "*So, it was to first create a job for me and avoid working on the threats of a boss, like we pay you, the day we are angry we don't pay you. You see on the other hand if I myself cut my produce I go to the market with it, if we don't pay, I myself can go home with it, you see there I already have my own job, I'm my own boss, I'm free to do what that I want.".* 26-year-old farmer with secondary education and living in the Littoral region.

> "*The agro-pastoral sector, I know that I have spent my whole life there (laughs) because if we don't breed, people won't eat. If we don't cultivate, people won't have enough to eat. We allow it, it's for marketing and self-consumption, so you no longer need to spend.".* Young 28-year-old farmer with secondary education and living in the Center region.

The opinions collected from those in charge of the PCP AFOP program corroborate this primacy of the search for gain and autonomy in the reasons that have pushed young people to

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engage in the agricultural sector. It is in that sense that Mr. Mbar Mbida, head of the PCP AFOP program notes that:

> "*...the majority speaks more about autonomy so they want to be autonomous because when we look in our society, we sometimes see someone even his activities sometimes helped by parents, others want to be autonomous, others find that the activities they carry out are precarious activities, they think that by embarking on agriculture as they see other parents...".* Instructor Integration Advisor, Mbar Mbida, Male, 30 years old and Engineers of Agro-economic Works.

The search for gain, autonomy/independence and food self-sufficiency for the family or farmers also mentioned love or passion for as a reason for engaging in agriculture. This motivation is in fact evident exclusively or in association with other attraction factors for 14 farmers among the 54 concerned. The following extracts from interviews, collected from farmers, give the quintessence of this motivation.

> "*Well the reasons remain positive because here this is what I was taught when I was even little. And I'm not going to say that's the subsection but I liked the thing because I was living off of it.*". Young farmer aged 34, with secondary education and living in the Littoral region.

> "*First, I was born to farmer parents. And what motivated me the most is that when the parents went to the field, I accompanied them all that. The land too.* ". Young farmer aged 25, with secondary education and living in the Littoral region.

After passion and love, the recurrent motivation in the farmers' comments was the presence of close relatives in the agricultural sector. Indeed, the fact for individuals to have grown up in an environment with farming parents predisposed them to move towards this sector either directly after stopping studies for various reasons, or after having encountered difficulties on the market work. This is what emerges from an excerpt from an interview with the following farmer:

> "*…it wasn't conditioned, I already had predispositions, no; he had already formed me he had already given me certain things, the predispositions I already had them when he was not yet dead. Well I already said it; I said it earlier first, my father was already in the field, it is this profession first of all from father to son. That's like our heritage there, it's in our habits, we start there first and then we grow with that, we may not have other activities but agriculture remains the main activity in our family. Those who are civil servants, I don't really know what, everyone always ends up there, even when you retire, it's in the field, it's not elsewhere, it's on a farm. So, if you're lucky enough to start there, you'll always end up there, you're not going to end up elsewhere, that is to say that if we start where the others end up…".* 42-year-old farmer with a higher level of education and living in the Center region.

From the point of view of gender, even if the search for gain remains the most declared attraction factor for both men and women, it should however be noted that women are relatively more numerous than men to declare the love and passion for the sector (4 women against 1 man). They are also more likely to highlight an association between the presence of parents in the sector and the search for gain, or autonomy. This result can be explained on the psychological level by a greater sensitivity of women compared to men to the socialization environment.

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Table 3: Distribution of farmers whose declared pull factors as reasons to enter agriculture by type of pull factors and by gender

Index of Pull factors declared	Gender of farmer		Number and percentage of farmers	
	Male	Female	Number	Percentage (%)
(4)	15	9	24	44.44
(2)	7	2	9	16.67
(1)	0	4	4	7.41
(1+4)	5	2	7	12.96
(3+4)	1	0	1	1.85
(2+4)	2	3	5	9.26
(1+2+4)	3	0	3	5.56
(1+2)	0	1	1	1.85
Total	**33**	**21**	**54**	**100**

Sources: Authors' field data

Moreover, the search for profit is linked to other reasons insofar as the presence of close relatives in the sector facilitates access to the factors of production (in particular access to land) and necessary knowledge, predisposing them to enter the area. The passion and love of the agricultural sector then appear in most cases as the consequences of being in contact with this sector since childhood. Also, for young people who have not been immersed in the activity since childhood, the training received from the PCP AFOP program has been a real way for young people to become aware of the various business opportunities available in the agricultural sector.

4.1.2 Distribution of farmers having declared both push and pull factors

Some young farmers also presented, in addition to the opportunities that led them to enter the agricultural sector, the constraints linked in particular to the lack of means to continue their studies, the difficulties on the labor market, and also family responsibilities and burdens.

Table 4 highlights a recurrence of the association between the search for gain, autonomy/independence and job loss following a layoff, bankruptcy or restructuring of the company of the previous job. Once again, the farmers mentioned profit seeking, but here it follows a difficulty in the previous job that pushed the individual. This association is well described by the comments made by a 36-year-old farmer with secondary education and living in the Center region who states that:

> "*Euhhh there are several reasons first of all, we ourselves know here that competitions are no longer given, it's not something that anyone can do, so the lower classes, so we can't manage to access the competitions here. And since my training in agropastoral and even before the training, if I managed to solve my problems it is in relation to agropastoral. So now I know that I am independent so I work for my own account."*

Or even the words of this young 33-year-old farmer with a higher level of education, previously working in civil society (the formation of GICs) and also living in the Center region, which essentially underlines that:

> "*The motivations that pushed me to migrate in this field, to tell you the truth, it's the precariousness of life, unemployment, and we were promised that we had to have state funding to settle that's it first. Seeing a farmer, you could see that he was*

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someone who wasted his life. But, with the training with the different internships that we had to carry out, we realized that it is not a bad activity, if you put your heart into it and if you also indulge in technology you can get by more than the one who works in the office. Because with the training I got closer to certain organizations. We were only taught certain crops with high profitability such as the French apple, such as the strawberry…".

We thus observe the difficulty of accessing other sectors mainly push individuals to move towards the agricultural sector, attracted moreover by the autonomy and the possibilities of gain in this sector, revealed through AFOP training programs. In isolation or in combination with other pull factors, the role of the presence of parents in the agriculture was also highlighted by farmers and a young 31-year-old farmer living in the central region, which say that:

"*Entry into the agro-pastoral field first came from my parents. Because my mom constantly since my birth took us to the field. We have had a taste, I admit. She took us to the field each time and immediately I immersed myself in the activity that my mother was doing. Because my dad was a carpenter and mason. It's mom being a housewife. She was growing cassava associated with pistachio. That's where I entered this field and I also liked (...) It's because to tell you the truth. It's because my school comes from my mother's cultures, that's how we paid for my school. For example, my mother processed cassava sticks. And I was the one selling it to control. That's when I saw that I said to myself wow this sector must be buoyant...because first of all I wanted to be I want to be independent. Yes, and it is also with the aim of creating an agro-pastoral business and also who will do what will allow me to improve my living conditions. To fight against youth unemployment. Because when I already talk about business you already see that the workforce must be hired at all levels.* ".

From the point of view of gender, women are particularly illustrated by an association of love and passion for agriculture and the presence of parents in the sector on the one hand and on the other hand difficulties in the market for employment. This association is expressed by a young, 35-year-old female farmer with a higher level of education and living in the central region, who tell that:

"*One I was born into a family of farmers. From the same planter and the same cultivator so during my adolescence I had to do field work. It was only the start of the school year, in September, that took you away from that. As soon as June arrived, we knew we had to face the hoe for maybe three months. We are talking about Easter holidays as we are going to give the children there, you know you have to go and do the work for at least two weeks. So it was already if I can say a morning bath for me. (...) No, no, never. It can't even because I wouldn't have anything else to do. It's something I chose, I choose agropastoral out of passion, it's a passion for me. After my university studies I had to do a training in life insurance. So I was already about to even throw in the field but it was really not easy to convince someone to subscribe. When I got the information ... I submitted the files and after the competition I succeeded so it was a passion for me to do agropastoral.*"

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Table 4: Distribution of farmers having declared both push and pull factors as reasons to enter in agriculture

Combination of push and pull factors index declared	Gender of farmer		Number and percentage of farmers	
	Male	Female	Number	Percentage (%)
(4+5)	6	1	7	50
(4+6)	1	0	1	7.14
(4+5+6)	0	1	1	7.14
(2+4+5)	2	1	3	21.44
(2+5)	1	0	1	7.14
(1+2+5)	0	1	1	7.14
Total	**10**	**4**	**14**	**100**

Source: Authors' field data

Opportunities always arise in a favorable context marked by constraints on the labor market and/or family burdens and responsibilities, and the young person seizes the opportunities that arise with the ultimate goal of improving their living conditions (earning income), money and food).

4.2 Results of Quantitative Analysis

For that analysis a sampling of 539 young beneficiaries of PCP AFOP and PEA-Jeunes, have been interviewed with a questionnaire designed to this effect, in Central and littoral regions of Cameroun. Before presenting and discuss results of econometric estimation of the model, we first describe all the variables that were introduced in the model.

4.2.1 Descriptive statistics

a) The dependent variable: The entry mode into agricultural sector

To design dependent variable, the authors make use information about the activity that the young was involved in before agriculture (Q201) and if the young stopped that activity (Q202).

Figure 1 present the number of farmers by groups. From the said graph, we note that most young people (246) enter the agricultural sector after studies or as soon as they reach working age for those not in schools. Besides, 165 young people who enter agriculture by mobility and 127 young farmers have entered the agricultural sector to diversify their activities.

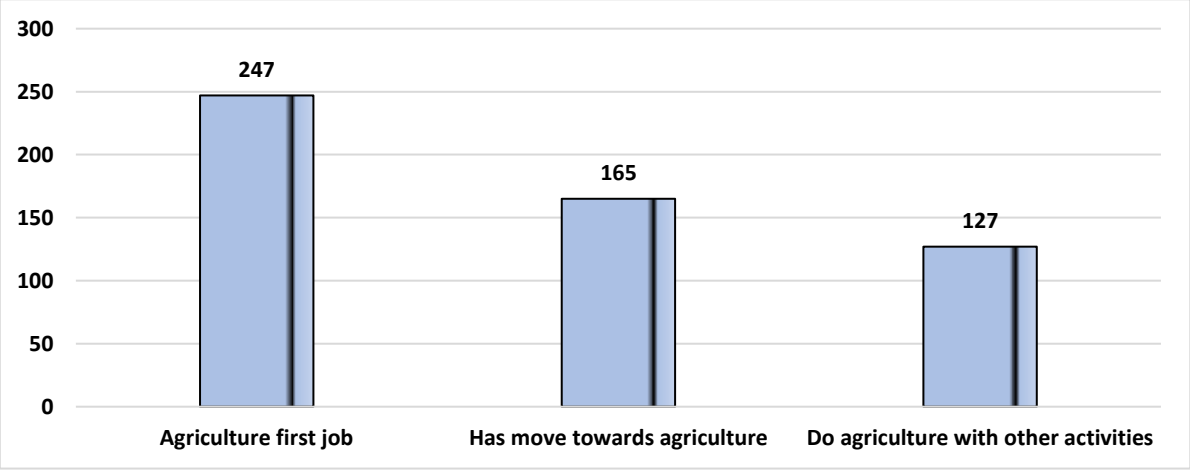

Figure 1: Number of farmers on basis of entry mode into agricultural sector

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b) Presentation of independent variables

Concerning sociodemographic characteristics, we observe that male were more than female, 28.39% of farmer interviewed get married before entry in agriculture and 33.77% are single, the number of children has increase, 42.3% of farmer interviewed have primary education level and 33.95% have secondary and more, and 25.6% have follow a training in agriculture.

Regarding Geographical characteristics, its observed that 53.06% of farmer put less than 30 minutes to transport their harvest from farm to market and in the same way for 48.05% of farmer the distance between farm and market is less than 5 kilometers. We also note that 18.92% of farmer have migrate from urban to rural area. Concerning familial and demographic shocks we note that 20.59% of farmers have live a situation of death of relative before entry in agriculture, and 19.58% have meet sickness of parents before entry in agriculture. Looking finally at others opportunities and constraints, it can be noted that more than 62% of farmers have declare love or passion for entry in agricultural sector, 9% of farmers have declare research of earnings, 20% because of the support of public program, 45% because of presence of relatives in the sector and 28% because of difficulties to integrate another domain.

Table 5: Description of variables

Socio-demographic characteristics	Numbers	%	Cummulative %
Gender			
Male	410	76.07	76.07
Female	129	23.93	100.00
Change in marital status			
Married after entry in agriculture	204	37.85	37.85
Married before entry in agriculture	153	28.39	66.23
Single (No changes)	182	33.77	100.00
Number of children before entry in agriculture			
0	220	40.82	40.82
1	145	26.90	67.72
2	83	15.40	83.12
3 and more	91	16.88	100.00
Number of children during data collection			
0	118	21.89	21.89
1	98	18.18	40.07
2	111	20.59	60.67
3 and more	212	39.33	100.00
Highest education level			
No level	128	23.75	23.75
Primary	228	42.30	66.05
Secondary and more	183	33.95	100.00
Have a training in agriculture			
No	401	74.40	74.40
Yes	138	25.60	100.00
Geographical characteristics			
Time			
Less than 30 minutes	286	53.06	53.06
Between 30min and 1hour	126	23.38	76.44
Between 1hour and 2hours	78	14.47	90.91
More than two hours	49	9.09	100.00

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Distance from market			
Less than 5 kilometers	259	48.05	48.05
Between 5 and 20 Kilometers	180	33.40	81.45
More than one 20 Kilometers	100	18.55	100.00
Change in type of place of residence			
Is stayed in urban area	223	41.37	41.37
Is stayed in rural area	191	35.44	76.81
Has migrate from urban to rural	102	18.92	95.73
Has migrate from rural to urban	23	4.27	100.00
Familial and demographic shocks			
Relative death			
No	428	79.41	79.41
Yes	111	20.59	100.00
Relative sick			
Yes	105	19.48	19.48
No	434	80.52	100.00
Others opportunities and constraints			
Love or passion for agriculture			
No	204	37.85	37.85
Yes	335	62.15	100.00
Seek earnings			
No	486	90.15	90.15
Yes	53	9.85	100.00
Support of Public Program			
No	429	79.59	79.59
Yes	110	20.41	100.00
Relative installed in the sector			
No	293	54.36	54.36
Yes	246	45.64	100.00
Difficulties to seek a job in another domain			
No	387	71.80	71.80
Yes	152	28.20	100.00

Sources: Authors' field data

4.2.2 Results of the estimation

The econometric model presented above is analyzed using STATA software. The results show that the multinomial logit model is globally significant and the variables that influence entry into the agricultural sector are gender, age group, level of education, number of dependent children before entry. in the agricultural sector, marital status before entering the agricultural sector, the time taken to sell the products, the distance between the farm and the market, the fact of having migrated from urban to rural (often return), the death of parents, the presence of parents in the agricultural sector, and the presence of state support programs. The results below are presented in two stages, each time comparing the modality of the dependent variable chosen as reference (which is agriculture as first job) with the two other modalities (change of activity, or diversification of activities).

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a) Mobility vs integration in agriculture as first job

With regard to socio-demographic characteristics, its noted that all other characteristics being equal, women farmers compared to men are 49.7% less likely to enter the agricultural sector by changing activity than following initial entry into the labor market. With respect to age, its observed that with equal characteristics, farmers under 30 compared to farmers aged 30 and over are twice as likely to enter the agricultural sector following a change of activity than to enter it following an initial entry into the labor market. Indeed, older individuals are much more likely to have already exercised an activity before agriculture. Regarding the number of dependent children, we note that with similar characteristics, farmers without any children compared to those with at least one dependent child are 2.294 times more likely to enter the agricultural sector following a change of activity than entering it as your first activity on the labor market.

With regard to the change in marital status, the results reveal that with identical characteristics, farmers who were married before entering the agricultural sector compared to those who were single are more likely to enter the agricultural sector following a change of activity than entering it following an initial entry into the labor market. With identical characteristics, farmers who have suffered the loss of a parent before entering the agricultural sector compared to those who have not suffered this shock, are 59% less likely to enter the agricultural sector following a change of economic activity than to enter it following a first insertion on the labor market.

With identical characteristics, farmers whose parents have worked in the agricultural sector compared to those whose parents have not worked in the sector are 5.58 times more likely to enter the agricultural sector following a change of economic activity than to enter it following an initial entry into the labor market. Finally, its noted that with identical characteristics, farmers who have benefited from a public program compared to those who have not benefited from public support have 60% less chance of entering the agricultural sector following of a change of activity than entering it as a first entry into the labor market.

b) Diversification vs integration in agriculture as first job

There are no significant differences between men and women on the risk of entering the agricultural sector through diversification. Compared to farmers under 30 years old, those with at least 30 years old are more likely to enter the agricultural sector following a diversification of activities than to enter in the sector by a first insertion in the labor market. Regarding the level of education, we note that, with identical characteristics, farmers with a higher level of education are 51% less likely to enter the agricultural sector for reasons of diversification of activities than for a first job.

Regarding the number of dependent children, the authors note that with similar characteristics, farmers with two (02) dependent children compared to those with three or more dependent children are 2.516 times more likely to enter the sector agriculture following a diversification of their activities than to enter it as their first activity on the labor market. With equal characteristics, farmers whose farm is located less than one hour from the market compared to farmers located less than 30 minutes away are 30% less likely to enter the agricultural sector following diversification than to enter it following an initial entry into the labor market. With same characteristics, farmers whose farms were located between 5 and 20 kilometers located more than 20 kilometers from the market, compared to farmers whose farms were located less than 5 kilometers from the market, were respectively 1.8 times and 2.9 times more likely to enter the agricultural sector following diversification than to enter by first integration mode.

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Researchers also observed that, with similar characteristics, farmers who have made an urban-rural migration compared to those who have not made such a migration before, are 46% less likely to enter the agricultural sector following a diversification of activities than entering them following an initial entry into the labor market. With identical characteristics, farmers whose parents have worked in the agricultural sector compared to those whose parents have not worked in the sector are 2.3 times more likely to enter the agricultural sector following a diversification of activities than entering them following initial entry into the labor market.

Finally, it was noted that with identical characteristics, farmers who have benefited from a public program compared to those who have not benefited from public support have 60% less chance of entering the agricultural sector following diversification of activity than entering it as a first entry into the labor market.

Table 6: Relative risk ration of the multinomial logit estimation

VARIABLES	**Entry in agriculture as first integration in labor market**			
	Mobility		**Diversification**	
Sex	**RRR**	**Std.err.**	**RRR**	**Std.err.**
Man	*Reference*			
Woman	0.497**	0.142	0.67(ns)	0.188
Age group				
20 – 30 years	*Reference*			
30 - 40 years	2.333***	0.630	1.316(ns)	0.360
40 years and more	2.224*	0.972	0.675(ns)	0.336
Education level				
No level/primary	*Reference*			
Secondary	0.856(ns)	0.247	0.874(ns)	0.263
Higher	0.704(ns)	0.230	0.51**	0.174
Have a professional training in agriculture	0.881(ns)	0.234	0.988(ns)	0.271
Number of dependent children before the entry into agricultural sector				
0	2.294**	0.772	1.457(ns)	0.527
1	1.176(ns)	0.483	1.754(ns)	0.758
2	0.925(ns)	0.411	2.516*	1.247
3 and more	*Reference*			
Number of dependent children during survey				
0	0.714(ns)	0.302	1.627(ns)	0.723
1	0.506(ns)	0.243	1.88(ns)	0.952
2	1.021(ns)	0.484	1.673(ns)	0.912
3 and more	*Reference*			
Change in matrimonial				
Still single (No changes)	*Reference*			
Got married after joining agriculture	1.443(ns)	0.467	0.818(ns)	0.263
Get married before entry in agriculture	2.955***	1.032	1.273(ns)	0.441

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Time to transports products from the farm to the market				
Under 30 minutes	*Reference*			
Between 30 minutes and 1 hour	1.123(ns)	0.342	0.585(ns)	0.192
More than one hour	0.721(ns)	0.252	0.301***	0.122
Distance between farm and market				
Under 5 kilometers	*Reference*			
Between 5 and 20 Kilometers	1.339(ns)	0.373	1.806**	0.531
More than one 20 Kilometers	1.703(ns)	0.669	2.947**	1.268
Has migrate from urban to rural before entry into agricultural sector	0.843(ns)	0.233	0.46***	0.135
Has lost their parents before entry into agricultural sector	0.597**	0.155	1.101(ns)	0.283
Have lived cases of illness of close relatives before entry into the agricultural sector	0.801(ns)	0.228	1.317(ns)	0.425
Difficult to find a job elsewhere / no training in other areas	0.807(ns)	0.208	1.102(ns)	0.305
Presence of parents in the sector / easy access to land / heritage	5.588***	2.402	2.301*	1.138
Entered the agricultural sector due to love or passion	0.866(ns)	0.261	1.338(ns)	0.394
Entered the agricultural sector in search of gain/ autonomy or to ensure food supply	0.984(ns)	0.228	0.965(ns)	0.237
Entered the agricultural sector because of the presence of public programs.	0.605*	0.163	0.606*	0.172
_cons	0.631(ns)	0.465	0.246*	0.203

(***) Significant 1%, (**) significant to 5% and (*) significant to 10%. The coefficients with (ns) are non-significant.

Sources: Authors' field data

Contrary to what was emphasized in the literature, having migrated from the urban environment in rural areas has no effect on entry into the agricultural sector by mobility and besides, while it decreases the risk of entering into agricultural sector by diversification of activity. The difficulties related to the flow of the products of the farm that are the time taken to transport the products of the farm to the markets and the distance separating the exploitation of the markets.

The number of dependent children before entering the agricultural sector influences the entry into the agricultural sector by diversification of activity rather than following a first integration in the labor market. Compared to young people with low education level, those with higher education are less likely to entry in agricultural sector by diversification of activity, rather than entry by first integration.

4.2.3 The impact of entry mode on agricultural outcomes

Moreover, the comparison of the effect of each entry mode on agricultural outcomes shows that, integration in agriculture as first work or mobility towards agriculture have not a significant effect on agricultural income. However, we can note that integrate agriculture as a secondary activity by diversification has a negative effect on agricultural income.

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Table 7: Effect of involvement in agricultural activities by entry mode

Entry mode in agriculture	Treatment effect	Std. Err.	Z	P>z
Agriculture First work	220421.4	235791.9	0.93	0.350
Has move towards agriculture	4484.102	185723.3	0.02	0.981
Integrate agriculture as a secondary activity for diversification	-357997.3	162512	-2.20	0.028

Sources: Authors' field data

This result indicates that, it would be more fruitful for farmer to encourage involvement of youth of agricultural program by integration in agriculture as first work or by mobility towards agriculture, with agriculture as a main activity.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to measure the influence of demographic events that occurred in the family and personal life of young people on their installation in the agricultural sector. In order to provide response to our research we have carried out in the Center and Coastal Regions in Cameroon of qualitative and quantitative data collections for young beneficiaries of PEA-Youth and PCP AFOP public programs.

With regard to quantitative analysis, it was observed that being a woman, having lost their parents before entry in agriculture and the presence of public program decrease the risk of entry into agriculture by mobility rather than by first integration. While being more than 30 years old, having no child before entry in the sector, getting married before entry in agriculture and having parents being involved in the sector increase the risk to enter in the agriculture by mobility rather than by first integration.

Besides, having higher education level, taking more than one hour for the distribution of farm products, having migrate from urban to rural before and the presence of public program for integration in agriculture decrease the risk to entry in agriculture by diversification mode rather than by first integration. While having two dependent children before entry in agriculture, having parents present in the sector and having a farm far from the market for more than five (5) kilometers increase the risk to entry in agriculture by diversification mode rather than by first integration. The results of the qualitative analysis support the importance of personal and familial aspects because farmers declare more pull or positive factors that have led them to entry into agriculture and amongst these factors the reason of earnings seeking, autonomy of food security for the family is the most common.

Public programs should foster young unemployed youth and youth in precarious previous jobs during the selection process. Especially for young previously in precarious jobs, it is important to target those who get married and who have lost their parent before entry in agriculture.

Institutional Review Board Statement

The study was conducted according to the guidelines of the International Institute of Tropical Agriculture (IITA) Internal Review Board (IRB).

Informed consent statement

Informed consent was obtained from all participants involved in the study.

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Data Availability Statement

The data are available upon request.

Acknowledgments

The authors would like to thank the IITA Socio-economic team for their encouragement during all these years of hard work, the IITA team in Ibadan station, for according to us a mentor. Thanks also go to the IITA, and especially to IFAD, for funding this study. The opinion expressed in this manuscript does not engage authors' affiliations.

Conflicts of Interest

The authors declare no conflict of interest.

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