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Entrepreneurial intention among undergraduate agricultural students in the Republic of Benin

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Abstract
This study aims at investigating the determinants of entrepreneurial intentions of undergraduate students in agriculture to start self-employed agribusiness after graduation in the Republic of Benin. A sample of 351 final year agricultural students was selected from four universities both public and private in the Republic of Benin using a cluster sampling method. The data were collected through a structured questionnaire and analyzed using descriptive statistics and a binary logistic regression. The results reveal that an important of respondents (44.16%) were willing to start their own agribusiness venture as self-employment after graduation with a preference for agro-processing enterprises (35.48%) and crop production enterprises (26.45%). Significant factors that influence agricultural students' willingness to take up self-employment in agribusiness were age, students major, type of university attended, experience in agribusiness, friend role model, and overall perception towards agribusiness environment.The study recommends incorporation of entrepreneurial education in the curriculum for all majors, involvement of agribusiness professionals/entrepreneurs in the training programs, establishment of entrepreneurship clubs, visibility of successful youth entrepreneurs in agribusiness, and creation of conducive agribusiness environment for youth graduates.

Key words: entrepreneurial intentions; agribusiness; youth; self-employment; Republic of Benin.

1. Introduction

Youth unemployment remains a critical challenge in developing countries, especially in Sub-Saharan Africa (SSA) where the rate of youth unemployment is one of the highest in the world (Page 2012; Pieters 2013). This rate is 3.5 times higher, compared to the adult unemployment rate, reflecting the disadvantage of this cohort (15-24 years old) in the job market in SSA

(AERC 2014). The figures are even worse when gender is considered (Chakravarty *et al*. 2017). The case of the Republic of Benin showed that young people constitute a high proportion of the population, with more than 50% of the country's population between the ages of 18-35 years (United Nations, 2015). Unfortunately, 72.4% of this youthful population is unemployed (INSAE 2016). Furthermore, despite the high rate of youth unemployment in Benin, there are currently many universities bothpublic and private owned producing yearly thousands of graduates without employment (USAID 2011), leading to a double labor crisis: the lack of jobs for youth and the increase in the number of young people seeking jobs.

Agriculture becomes a good avenue to provide self-employment and livelihood to unemployed youth of Benin. This is possible through the creation of entrepreneurial activities in agriculture (FAO 2013). Agricultural sector, the largest employment sector in Benin, offers opportunities in terms of employment and economic prosperity. It accounts for 25% of GDP (World Bank 2017b), and employs over 47% of the workforce (INSAE 2016). Agribusiness– was identified as critical to jump-start economic transformation in Africa through the development of agro-based industries that bring much-needed jobs and incomes (Byerlee *et al*. 2013). Therefore, agribusiness is projected to be a US$ 1 trillion industry in SSA by 2030 compared to US$ 313 billion in 2010 (World Bank 2013). Hence, World Bank report recommended agribusiness to be at the top of the agenda for economic transformation and development in Africa.

Despite the importance of agribusiness in the Republic of Benin, the sector focuses mainly on farm-level production neglecting other aspects of the agricultural value chains. Besides, agricultural production in Benin is mainly done by school drop outs, illiterates and very few people of high academic standing are engaged in agribusiness (PNUD 2015). It is crucial that the youth graduates be empowered to take active part and benefit from such big and growing business opportunities.

The option of agricultural entrepreneurship to tackle youth unemployment can also solve the problems of food insecurity (Abdullah & Sulaiman 2013). However, despite huge opportunities for self-employment in agribusiness, most young graduates in Benin continue to look for clerical jobs that are no longer available, implying that these youth graduates are turning away from self-employment in agribusiness (Baba-Moussa 2017) including graduate students in the field of agriculture. Understanding the key factors that influence the interest of undergraduate students in agriculture to venture into agribusiness could be critical in shaping recommendations that would help get youth into the agribusiness. The present study is thus in alignment with policy formulation, and aims to identify the key determinants behind undergraduate students' willingness to start own agribusiness as self-employment venture after graduation in the Republic of Benin.

2. Theoretical framework

The entrepreneurial intention was considered as the key element in understanding the new-firm creation process (Bird 1988). Therefore, the theory of planned behavior (Ajzen 1991) and the theory of entrepreneurial event (Shapero & Sokol 1982) guided the theoretical framework of this study.

The Theory of Planned Behavior (TPB) is based on the premise that any behavior requires a certain amount of planning. Hence, intentions are shaped by three elements (Ajzen 1991): (i) the subject's attitudes toward the behavior (perceptions of personal desirability of performing the behaviour), (ii) subjective norms (reflects perceived social pressure to perform or not the behavior), and (iii) the subject's perception of behavioral control (the perception that the target behaviour is within the decision maker's control). According to the theory, attitudes, subjective norms and perceived control predict intentions, while intentions and perceived control predict behaviour.

The Theory of the Entrepreneurial Event (TEE) considers firm creation as the result of the interaction among contextual factors, which would act through their influence on the individual's perceptions. In this model, entrepreneurial intentions depend on three elements: (i) the perception of the desirability; (ii) the perception of feasibility; and (iii) the propensity to act (Shapero 1982; Shapero & Sokol 1982). The perceived desirability is defined as the attractiveness of starting a business; perceived feasibility as the degree to which the individual feels capable of starting a business; and propensity to act as the personal disposition to act on one's decisions. According to these models, intention precedes action. Apart from routine acts where the action may precede the intention, the intention can predict intentional behavior to have a given behavior.

Both the TPB and TEE models provide comparable interpretations of entrepreneurial intentions (Krueger 2000). Krueger demonstrated that attitudes and subjective norms in the TPB model are conceptually related to perceived desirability in TEE, while perceived behavioral control in TPB corresponds to perceived feasibility in the TEE model. Essentially, perceived desirability and perceived feasibility are fundamental elements of intentional behavior.

The willingness of undergraduate agricultural students to venture into agribusiness as self-employment after graduation will be even stronger than the action (i.e. entrepreneurship) will be perceived as desirable and feasible. These two dimensions (perceived desirability and feasibility) are themselves reflections of student beliefs. These beliefs are therefore important if one wants to understand the factors that determine the entrepreneurial intention of students.

The above theories do not take strong prior relationship between potential variables and it needs to be proved by statistical analysis involving structure equation modeling. Therefore, a logit/probit regression model is appropriated given the nature of the dependent variable (i.e. the student's willingness or not to take up agribusiness as self-employment after graduation) (Pindyck and Rubinfeld, 1998). This regression model is given by:

$$y_i = \alpha + \beta x_i + \mu_i$$

Where:

$\boldsymbol{Y}$=dependent binary variable;

$\boldsymbol{\alpha}$ = Constant;

$\boldsymbol{\beta}$ = Regression coefficients;

$\boldsymbol{X_i}$= Explanatory variables;

$\boldsymbol{\mu_i}$ = Stochastic error term.

3. Methodology

3.1. Sampling and data collection

The sample was selected using a two-stage cluster sampling procedure. The first stage of sampling was done by selecting universities with agricultural programs both public and private. A total of four universities was considered in Benin comprising all three public universities and one private university. These universities include: University of Parakou (UP) located in the Northern Benin; and University of Abomey-Calavi (UAC), National University of Agriculture (UNA), Catholic University of West Africa (UCAO), all located in Southern Benin. The second stage involved random sampling of 351 final year undergraduate students from faculties and universities of agriculture since they are at the doors of making actual choice in entering the labour market. The sample size was determined in each of the selected faculty/university using the formula of Kothari (2004) and distributed to reflect their numbers according to the various majors. The formula is given by:

$$n = \frac{Z^2 pqN}{e^2(N-1) + Z^2 pq}$$

Where:
n is the sample size per faculty/university,
N is the population size (i.e. total final year undergraduate students in the faculty/university of agriculture),
Z is the standard variate at 95% confidence interval (1.96), *e*=5% (0.05) = level of precision,
p (0.5) and *q* (0.5) are sampling distribution of proportion of success and failure respectively.
A structured questionnaire was used as data collection instrument for this study. The information collected includes: socio-demographic characteristics (sex, age, previous experience, academic background, parental background), influence of friend role model, career path envisaged after graduation, and broad perception about agribusiness environment.

3.2. Data processing and analysis

The descriptive statistics (frequencies and percentages) were used to characterize the profile of respondents and access their willingness towards agribusiness as self-employment. A binary logistic regression model (logit) was used to determine the factors influencing students' willingness to venture into agribusiness as self-employment after graduation. The empirical model is specified as follows:

$$P(Y=1) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots + \beta_{15} X_{15} + \beta_{16} X_{16} + \varepsilon$$

Where:
Y=Dependent binary variable (1= Willing to venture into agribusiness after graduation; 0= Otherwise);
P (Y=1) = Probability to venture into agribusiness after graduation; β_0= Constant; β_1-β_{12}= Regression coefficients;
X_1-X_{16}= Explanatory variables;
ε = Stochastic error term.

(P/1-P) = Odd ratio (odds in favor of willingness to venture into agribusiness). Chi-square was used to measure goodness of fit.The explanatory variables of the model and expected signs are presented hereafter.

Type of university attended

This variable refers to the private/public character of the university. According to Philie & Bagheri (2013), students from private university are more willing to be entrepreneurs compared to those of public university. Therefore, this variable was used in the model of this study as binary with the assumption that students from private university will likely have more entrepreneurship intentions (Table 1).

Major of students

The major of students was found to have either positive or negative influence on the entrepreneurship intention of students (Looi & Khoo-Lattimore 2015) implying that the entrepreneurship intention of students depends on the major in which they are enrolled. The various majors of students were used each as binary in the model (Table 1).

Sex of students

Many studies on entrepreneurship intention found that male generally have stronger entrepreneurial intention than females (Xavier *et al*. 2013; Looi & Khoo-Lattimore 2015; Barau

et al. 2016). It is then a binary variable with the assumption that male will be more willing to venture into agribusiness after graduation (Table 1).

Age of students

The age is subject to contradictions in entrepreneurship intention researches. Findings across studies showed that mostly people decide to establish their own enterprises between the age of 25 to 34 years-old (Langowitz & Minniti 2007; Xavier *et al*. 2013). However, these findings were contradicted by some authors (Hatak *et al*. 2014; Halvorsen & Morrow-Howell 2016; Israr & Saleem 2018) who found entrepreneurship intention among the youngest people. This variable was used as categorial in the model (Table1).

Occupation of students' parents

The assumption for this variable is that parents' occupation has positive influence on the career choice of their wards. Previous studies (Looi & Khoo-Lattimore 2015; Tarling *et al*. 2016; Ozaralli & Rivenburgh 2016) showed that youths whose parents are self-employed in agribusiness have greater predicted probability of engagement in agribusiness. A positive relationship of this variable with students' willingness to take up agribusiness as self-employment venture is then expected. The variable was used as a dummy variable in the model (Table 1).

Experience in agribusiness activities

The basic assumption is that students with experience in agribusiness activities will be more attracted to agribusiness as a future career. According to Bosompem *et al.* (2017) youths' participation in agribusiness activities motivates them to take up agribusiness as self-employment. This variable was used as binary in the model (Table 1).

Parental educational level

Parental education includes father's education and mother's education. The parental educational level was found to have influences on individuals' career choice (Bosompem *et al*. 2017). Unlike most of the previous studies that consider parental educational level (father and mother) as a binary variable (no matter the level reached), this study considered each level of parental education as a sub-variable of a binary nature to really capture the relationship with the entrepreneurial intention of students (Table 1).

Friend role model

Friend role model was found to have an influence on students' willingness to take up agribusiness as career (Van Auken *et al*. 2006; Ernest & Awuah 2013; Karimi *et al*. 2013). The assumption is that students who have a successful friend entrepreneur will be more willing to venture into agribusiness. This variable was used as binary in the model (Table 1).

Perception of agribusiness environment

The agribusiness environment is particularly influenced by the outcome of the policies by government and other stakeholders in the sector (May *et al*. 2011). Therefore, the willingness of youth to start own agribusiness depends on their perceived feasibility in the environment (Bosompem *et al*. 2017). The assumption is that those with a positive perception of the agribusiness environment will be willing to venture into agribusiness as self-employment after graduation. This variable captured the broad perception of students towards agribusiness environment (Table 1).

Table 1: Description of independent variables, measurement and *a priori* expectations

Explanatory variables	Measure	a priori expectation
Type of university (X_1)	0 if public, 1 if private (Public= reference category)	+
Major of students (X_2-X_4)	Science and Technique of Production and related sciences (1 if yes; 0 otherwise) Nutrition/food science and related science (1 if yes; 0 otherwise) Economics/Management (1 if yes; 0 otherwise) (Forestry and related sciences= reference category)	+/-
Sex (X_5)	1 if male, 0 if female (female= reference category)	+
Age (X_6)	1 if 18-21, and 0 if 22-34 (18-21= reference category)	+/-
Occupation of student parents (X_7)	1 if at least one of the parents is self-employed in agribusiness, and 0 otherwise (none of the parents is self-employed in agribusiness= reference category)	+
Experience in agribusiness (X_8)	1 if student take part in agribusiness activities, and 0 otherwise (student does not take part in agribusiness activities= reference category)	+
Father's education (X9-X11)	Primary (1 if yes; and 0 otherwise) Secondary (1 if yes; and 0 otherwise) University (1 if yes; and 0 otherwise) (No formal education=reference category)	+/-
Mother's education (X_{12}-X_{14})	Primary (1 if yes; and 0 otherwise) Secondary (1 if yes; and 0 otherwise) University (1 if yes; and 0 otherwise) (No formal education=reference category)	+/-
Friend role model (X_{15})	1 if friend own an agribusiness, and 0 otherwise (friend does not own an agribusiness= reference category)	+
Perception of agribusiness environment (X_{16})	1 if student perceived the agribusiness environment favorable for youth entrepreneurship, and 0 otherwise. (student perceived the agribusiness environment unfavorable for youth entrepreneurship = reference category)	+

4. Results

4.1. Socio-demographic characteristics of respondents

Most of the students (70.94%) were aged between 22 and 34 years old; and female represented one quarter of the respondents (Table 2). The major of respondents was characterized by the predominance of Science and Technique of Production and related sciences (52.71%) which

include animal production and crop production. The sample also included a small proportion (11.40%) of forestry and related sciences (Table 2).
Regarding parent's education level, most of the fathers had formal education at secondary school level (38.75%) and a university degree (28.49%). However, most of the respondents' mothers had no formal education (32.76%). A minority of mothers (6.84%) had a university degree (Table 2).
As main occupation, most of the respondent fathers were government employees (40.46%) followed by those who were self-employed in agribusiness (20.80%). As for their mothers, a minority (4.56%) were self-employed in agribusiness, while nearly half (45.58%) of them were self-employed in others fields than agribusiness (Table 2).
Regarding the diploma obtained by respondents to enter university, two types were encountered. These include professional diploma in agriculture (10.26%) and general teaching qualification (89.74%). Even though most of them obtained general teaching qualification which is not focused on agriculture, more than three fifths (64.10%) of them have experience in agribusiness meaning that they take part in agribusiness activities either at home or elsewhere (Table 2).

Table 2: Socio-demographic characteristics of respondents

Variables	Modalities	Frequency (n=351)	Percentages (%)
Sex	Female	87	24.79
	Male	264	75.21
Age	18-21	102	29.06
	22-34	249	70.94
Students' major	Science and Technique of Production and related sciences	185	52.71
	Nutrition/food science and related science	68	19.37
	Economics / Management	58	16.52
	Forestry and related sciences	40	11.40
Father's education	No formal education	49	13.96
	Primary	66	18.80
	Secondary	136	38.75
	University	100	28.49
Mother's education	No formal education	115	32.76
	Primary	108	30.77
	Secondary	104	29.63
	University	24	6.84
Main occupation of father	Self-employed in agribusiness	73	20.80
	Self-employed in others sector	62	17.66
	Government employee	142	40.46
	Private sector employee	31	8.83
	Others	43	12.25
Main occupation of mother	Self-employed in agribusiness	16	4.56
	Self-employed in others sector	160	45.58
	Government employee	47	13.39
	Private sector employee	14	3.99

	Housewife	96	27.35
	Others	18	5.13
Experience in agribusiness	Participate in agribusiness activities	225	64.10
	Do not participate	126	35.90
Diploma to enter university	Professional diploma in agriculture (DEAT)	36	10.26
	General teaching qualification (BAC)	315	89.74

4.2. Undergraduate students' willingness to start own agribusiness venture after graduation

Less than half of the respondents (44.16%) were willing to start own agribusiness venture as self-employment after graduation (Table 3) showing that most of them preferred clerical jobs that are no longer available. Moreover, although females were less represented, 41.38% of them were willing to take up agribusiness as self-employment after graduation.

Regarding the preferred enterprises along the agribusiness value chains, agro-processing and crop production were the most preferred enterprises by students (Table 4). Only about 0.66% of these students were willing to engage in agricultural services as self-employment (Table 4).

Table 3:willingness of agricultural students to start own agribusiness venture after graduation

Willingness	Students (%)	Males (%)	Females (%)
Willing	44.16 (155)	45.08 (119)	41.38 (36)
Not willing	55.84 (196)	54.92 (145)	58.62 (51)
Total (%)	100 (351)	100 (264)	100 (87)

bracketed figures are the frequencies

Table 4: Students' preference of agribusiness enterprises

Agribusiness enterprise of interest	Frequency	Percentages (%)
Production of agricultural inputs	4	2.58
Supply of inputs	5	3.23
Crop production enterprises	41	26.45
Livestock and poultry enterprises	21	13.55
Fishery and aquaculture	6	3.87
Agro-processing	55	35.48
Trade of agricultural products	22	14.19
Agricultural services	1	0.66
Total	155	100

4.3. Factors affecting undergraduate students' willingness to start own agribusiness after graduation

The overall binary logistic regression model was statistically significant (Prob > chi2 = 0.000) implying that the regression results can be validly taken into consideration (Table 5).

The results showed a significant relationship between agricultural students' willingness to venture into agribusiness as self-employment and the following variables: age, major of students, type of university attended, experience in agribusiness, friend role model, and overall perception towards agribusiness environment (Table 5). Students with the age group of 22-34

were about two times willing to venture into self-employed agribusiness as compared to the age group of 18-21. This finding implies that the higher the age of students, the more likely they will venture into self-employed agribusiness. The majoring of agricultural students in Science and Techniques of Production (crop production and livestock production) (STP) and Nutrition and Food Sciences (NFS), were each about two times more likely to positively influence their willingness to venture into self-employed agribusiness. Given that a student is from the public university, the probability that he/she will take up an agribusiness venture increases by 0.32, otherwise decreases if a student is from private university. The participation of agricultural students in agribusiness activities was about two times more likely to positively influence their decision to start up self-employed agribusiness. Given that a respondent has a friend entrepreneur as role model, the probability that he/she intend to venture into self-employed agribusiness increase by 3.24. The positive perception of respondents toward agribusiness environment increases the likelihood that a respondent takes up a self-employed agribusiness by 3.24.

Table 5: Factors influencing agricultural students' decision on self-employment in agribusiness

Variable	Coefficient	Std. Error	Odds Ratio	P-Value
Sex	0.107	0.293	1.114	0.713
Age***	0.777	0.287	2.175	0.007
Major of students: STP**	0.887	0.422	2.428	0.036
Major of students: NFS**	1.073	0.487	2.926	0.027
Major of students: ecomomics	0.823	0.497	2.279	0.098
Type of university **	-1.128	0.461	0.323	0.015
Father's education: primary	0.001	0.440	1.001	0.997
Father's education: secondary	0.000	0.417	1.000	0.998
Father's education: university	-0.335	0.482	0.715	0.487
Mother's education: primary	0.169	0.318	1.184	0.595
Mother's education: secondary	0.295	0.356	1.344	0.407
Mother's education: university	0.214	0.558	1.239	0.701
Occupation of student parents	0.274	0.279	1.315	0.327
Experience in agribusiness***	0.776	0.261	2.173	0.003
Friend role model ***	1.175	0.358	3.241	0.001
Perception of agribusiness environment**	1.176	0.456	3.242	0.010
Constant	-4.321	0.847	0.013	0.000
Log likelihood= -208.48509 Number= 351 LR chi2 (12) =64.82 Prob > Chi2=0.0000 Pseudo R2=0.1345				

Significance level = *** 1% and ** 5% respectively

5. Discussion

5.1. Profile of agricultural students in Benin

This study revealed that most of the respondents were in their youthful age (22-34). This is consistent with Vorkeh (1990) who showed that most university students are in the late teens to middles thirties, the most critical period to make sound decisions on their career path after

graduation. Furthermore, the lowest representation of female among respondents implies that both genders were not adequately represented in the admission of agricultural students in the universities. This disparity could be inferred to either the lowest interest of female in the pursuit of tertiary education in agriculture.

Most respondents' parents had at least a primary education, and more than one quarter attended University. This implies that agricultural students come from well-educated elite parents who understand the value of education and professional careers. Although parental education was high, fathers were more educated than mothers. Parents' high level of education might also explain why they sponsored their children's higher education (Keng 2004). However, parents who did not attend school or with a lower level of education could have other opportunities of capacity building which might have an influence on the willingness of their children to choose agribusiness as self-employment after graduation.

The students' parents were involved in various activities as occupation including self-employment in agribusiness. This is expected to affect the choice of students of agribusiness as career. Parents play then a significant role in the career choice of their children (Looi & Khoo-Lattimore 2015).

Most of the respondents (64.10%) took part in agribusiness activities either at home or elsewhere. This is an indication that they have experiences in practicing agribusiness activities. It is expected that their relation with agribusiness activities will boost their morale in choosing a career in agribusiness as self-employment (Davey *et al*. 2011; Bosompem *et al*. 2017).

5.2. Undergraduate students' willingness to start own agribusiness venture after graduation

The lowest interest of agricultural students in agribusiness as self-employment after gradation is consistent with the findings of Bosompem *et al*. (2013) who showed that less than half (49.4%) of agricultural undergraduates were willing to start agribusiness after graduation in Ghana. However, previous studies showed that a huge number of agricultural students with entrepreneurship courses in their curricula were willing to go into agribusiness after graduation (Tessema & Dugassa 2012; Mahtab 2015; Ebewo & Rugimbana 2017). Therefore, the implementation of entrepreneurship courses by universities, to some extent, boost the willingness of students to venture into entrepreneurship (Sondari 2014; Zhang *et al*. 2014; Rengiah & Sentosa 2016), even though willingness to start own agribusiness does not necessarily translate to actual starting of business (Harding 2007). The low interest of agricultural students to venture in agribusiness is also supported, at least partly, by their negative perception of the agribusiness environment in Benin. Future research could attempt to determine the conservation rate of student entrepreneurial intention into actual entrepreneurial action embodied by agribusiness enterprise.

The interest of undergraduate agricultural students in agro-processing enterprises and crop production enterprises as self-employment right after graduation is not in line with Ojebiyi *et al*. (2015) and Ayanda *et al*. (2012) in Nigeria who showed agricultural students' interest in livestock enterprises. This could be inferred to the agribusiness opportunities available for youths in each country for entrepreneurship.

5.3. Factors affecting undergraduate students' willingness to start own agribusiness after graduation

The findings on the influence of the age group 22-34 are consistent with previous studies that found that the highest rates of entrepreneurship are in the cohort of 25-34 years-old (Langowitz & Minniti 2007; Xavier *et al*., 2013) although some also noticed a trend towards entrepreneurship at a younger age (Hatak *et al*., 2014; Halvorsen & Morrow-Howell 2016; Israr

& Saleem 2018). Therefore, any entrepreneurship programs towards students should not focus only on supporting young but also focus on the age group depending on the action.

The results also showed that potential entrepreneurs are more likely to come from the following majors: Science and Techniques of Production (crop production and livestock production) and Nutrition and Food Sciences. This finding confirms previous studies showing that the entrepreneurship intention of students depends on the major in which they are enrolled (Looi & Khoo-Lattimore 2015). This could be inferred to the fact that youth are concentrated on business opportunities related to production activities (primary production and processing), ignoring opportunities related to marketing and agricultural services. Therefore, to develop a large pool of potential entrepreneurs, agribusiness teaching should highlight the opportunities available in other segments of the agricultural value chains.

As for the type of university attended by students (public/private), the results of this study did not support previous studies (Philie & Bagheri 2013), that argued that students from private universities are more willing to be entrepreneurs than their counterparts from publicuniversities. This situation could be explained by the fact that most students from private universities come from wealthier families and parents that are often ready to pay for their children to pursue studies abroad after completionof the bachelor's degree, hence their lower interest to self-employment. The exposure of students to success stories in agribusiness including the provision of agricultural services and marketing should be done for both public and private universities.

The positive influence of student's participation in agribusiness activities on their willingness to start own agribusiness after graduation is in line with the findings of Bosompem *et al.* (2017). The positive attitude is that a potential entrepreneur's past and present experience acts as an incubator that exerts a central influence on their capability to effectively engage in opportunity recognition and exploitation (Cooper & Park 2008). The establishment of entrepreneurship clubs for agricultural students is a good option to strength and create entrepreneurial intention among students.

Besides the work experience in agribusiness, the positive relationship of the fact that students have a friend entrepreneur as role model, and their willingness to venture into agribusiness is consistent with others findings (Karimi *et al*. 2013) implying that individuals tend to learn from others who are role models for them. Therefore, there is a high possibility that by exposing students to successful entrepreneurs, their willingness to start own agribusiness in the future will increase.

The influence of the positive perception of agricultural students towards agribusiness environment is consistent with the findings of Bosompem *et al.* (2017) who showed that the entrepreneurial intention of agricultural student in Ghana depends on their perception of the various aspects of the agribusiness environment. Therefore, one of the good options to change the mindset of students and attract them in agribusiness as self-employment after graduation, is the creation of a conducive agribusiness environment for the successful integration of young graduates through the restriction of taxes for youth entrepreneurs, improved access to inputs (land, credit), and structural investments to improve the competitiveness of the economy (roads, market) (ACED 2017; World Bank 2017a; World Bank 2017b).

The no significant relationship observed between the agricultural students' willingness to venture into agribusiness as self-employment and their sex as well as their parent's education and their parent's occupation, was surprising. The aforesaid factors were found to be significant predictors (Bosompem *et al*. 2017; Barau *et al*. 2016; Tarling *et al*. 2016; Looi & Khoo-Lattimore 2015). By referring to these variables and the analytical framework from the study of Looi and Khoo-Lattimore (2015), it seems that undergraduate students' entrepreneurial intentions in the Republic of Benin are more likely made than born. A research agenda could

deal with the question does intention truly evolve to decision to venture in agribusiness and how?

6. Conclusion and recommendations

The focal target of this study was to identify the factors that influence entrepreneurial intentions in agribusiness among agricultural university students in the Republic of Benin. The study finds out that an important of respondents were willing to start own agribusiness venture as self-employment after graduation with a preference for agro-processing enterprises and crop production enterprises. Further results showed that the undergraduate agricultural students' willingness to enter into agribusiness as self-employment venture after graduation is associated with age, students' major, type of university attended, experience in agribusiness, friend role model, and overall perception towards agribusiness environment. Future research might attempt to determine the conversion rate of students' entrepreneurial intention into actual entrepreneurial action. Such a study could adopt longitudinal time frame to determine the extent to which entrepreneurial intentions have been translated into action.

Based on the findings and conclusion drawn from this study, recommendations are put forward.

Agricultural faculties and universities should incorporate entrepreneurial education in the curriculum for all majors rather than imparting only traditional courses which are less relevant in the current labor market. However, the design of entrepreneurial curriculum should focus on the important aspects of entrepreneurial knowledge and skills required.

Agricultural faculties and universities should involve agribusiness professionals/entrepreneurs in the training programs.

The visibility of successful youth entrepreneurs in agriculture should be encouraged. This is possible through national competitions from youth entrepreneurs in agribusiness and visible events such as "Agric-Enterprise Weeks" at university and the showcased of successful youth entrepreneurs (role models) during entrepreneurship lectures.

Agricultural faculties and universities should encourage and establish entrepreneurship clubs in order to foster and inspire students to engage in entrepreneurial activities even before the completion of their studies.

There should be creation of a conducive agribusiness environment by the government for youths to minimize risk and constraints associated with agribusiness. This is possible through the restriction of taxes for youth entrepreneurs, improved access to inputs by youths (land, credit), and structural investments to improve the competitiveness of the economy (mainly roads and market).

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