



## ASSESSMENT OF AGRICULTURAL STUDENTS OF UNIVERSITY FOR DEVELOPMENT STUDIES INTENTION TO TAKE UP SELF-EMPLOYMENT IN AGRIBUSINESS

Hudu Zakaria<sup>1</sup>, Hamza Adam<sup>2</sup> and Afishata Mohammed Abujaja<sup>3</sup>

E-mail: [azakariahudu@gmail.com](mailto:azakariahudu@gmail.com)

### Abstract

*The success of Ghana's drive to modernize agriculture cannot be realized without harnessing the quality human resource base of the youth, especially graduates from agricultural faculties. This paper therefore examined factors influencing agricultural students of the University for Development Studies (UDS) Intention to take up agribusiness as an avenue for future self-employment. Data for this paper was obtained from a field survey of 292 final year students of the University. A descriptive and Chi-square statistics were used to analyse the data obtained. Results of the analysis found students' perception regarding the prospects of agribusiness enterprises in Ghana to have a statistical significant influence at both 1% and 5% levels of significance on students' intention to take up agribusiness as a future self-employment avenue. Also age, marital status, place of domicile, parental educational background of students, practical agricultural experience and risks tolerance were found to have significant influence on students' intention to take up agribusiness as a source of future self-employment avenue or not. It is recommended that tertiary students pursuing agriculture and agricultural related programmes should be exposed to practical training in agriculture and be properly oriented on the prospects of agriculture as an avenue for self-employment upon graduation.*

**Key Words:** *Intention, Agribusiness, Self-employment, Students, Perception*

### INTRODUCTION

Agribusiness which have been defined as all business-oriented entities involved in the production, input supply, agro-processing, marketing and distribution of agricultural commodities GTZ (2001) is arguable the largest source of employment among rural populates in many developing countries (FAO, 2010a ). In spite of the fact that Ghana is now oil exporting country, the nation's economy is still depended on the agricultural sector as a major source of employment providing direct and indirect jobs to about 80% of the nation's workforce (MOFA, 2012). As such in the national development agenda, agriculture is expected to lead the growth and structural transformation of the economy; providing jobs, ensuring food security and producing the needed raw materials to propel the country's

industrialization agenda (George, 2008; MOFA, 2007). Significant improvements in the productivity of the agriculture sector are required to raise the average real incomes of Ghanaians, thereby reducing poverty and providing job security and sustainable rural livelihood (MOFA, 2010).

Smallholding, mostly family-operated farm unit of production is the dominant agricultural production in Ghana, where producers generally used rudimentary technology to produce about 80% of the country's total agricultural output (MOFA, 2012). Notwithstanding the fact that majority of Ghana's labour force, especially in the rural areas and the informal sector, are employed in the agricultural sector (MOFA, 2007), nationwide review of the implementation of the Food and Agricultural Sector Development Policy (FASDEP), found that the



country produces 51% of its cereal needs, 60% of fish requirements, 50% of meat and less than 30% of the raw materials needed for agro-based industries. This situation poses a challenge to the country's attainment of food self-sufficiency and production of the needed raw material to fuel the country's industrialization agenda. Also the national goal of modernizing agriculture is being hindered by the lack of commercialization of agricultural production, and the aging and illiterate farmer population, in spite of programmes and initiatives to attract the youth into agriculture (MOFA, 2007). This situation is setback to the adoption of improved technologies and large scale production of agricultural commodities. As such the success of Ghana's drive to modernize agriculture and encourage commercial farming and large scale production of agricultural commodities cannot be realized if the quality human resource of the youth, especially graduates from agricultural faculties and colleges is not harnessed.

However, there is existence little empirical evidence, established through research, regarding how students pursuing agriculture or agricultural related programmes at the university level perceived agribusiness enterprises as a future self-employment option and factors that influence their intention to take up such enterprises upon completion or otherwise. This paper, therefore examined factors influencing agriculture students of UDS intention in taking up future self-employment in agribusiness upon completion of their course of studies.

This paper adopted the Ajzen's (1991) Theory of Plan Behaviour (TPB) which postulate that decisions such as engaging in self-employment or not is a determinant of individual's intention, however, intention is determined by three antecedents namely attitudes, subjective norms and perceived behaviour control. Early, Ajzen (1988) argues that intention is a good predictor of the strength of an individual willingness to perform behaviour and the manner, efforts and plan to exhibit the said behaviour. Ajzen's (1991) TPB emanates from the Reason Action Theory (Fishbein and Ajzen, 1975) which state that intention originates from two determining factors. The first factor is personal attributes which reflects individual's attitude. The second factor is subjective norms which reflect social influence. Intention presented in the TPB by Ajzen as an

outcome of interactions between personal attitudes, perceived behavioral control and socio-cultural context referred to as subjective norm, is a critical component in explaining the probability of an occurrence of a behaviour and/or exhibition of actual behaviour. According to Fishbein and Ajzen (1975) intention is a person's subjective probability dimension that connects that particular person to a particular behaviour.

Attitude is a psychological evaluation of the degree to which an individual favour or disfavour an issue or action (Eagly and Chaiken, 1993). This psychological tendency is inherent in every individual in the form of evaluation covering all types and categories of evaluation, such as overt and covert, or in cognitive, affective and conative forms (Nurul *et al*, 2012). Shook and Bratianu (2010) argue that individual forms their attitudes based on their beliefs or perception of the likely outcomes. As such the more favourable the possibility is to an individual, the stronger their intention to do the behaviour will be, and vice versa. This paper therefore proceeds with the argument that students intention to take up self-employment in agribusiness is expected to be influenced by their perception regarding agribusiness, their experience and training in agriculture which will shape their attitude and how they perceived the social and economic environment providing support to agribusiness enterprise development.

### **Youth and Graduate Unemployment in Ghana**

The youth are more likely to suffer the greatest burden of unemployment problem of every nation as compared with the adult population. For instance, the unemployment rate of the youth globally ranked 12.6% compared with 4.8% as the rate of the adults in 2010 according to International Labour Organization (ILO) report on global youth employment trend (ILO, 2010b) and this does not auger well for the sustainable and collective development of the nations' economies.

Despite the impressive growth of Ghana economy over the last decade (ISSER, 2013, ISSER, 2010; 2012 Budget Statement and NDPC, 2010), unemployment has continued to be a major



development challenge of Ghana (Otoo *et al*, 2009; Asante, 2011; Business Guide, 2011; Owusu-Ansah *et al*, 2012 and Mensah, 2012) . Within a span of two decades it has been estimated that unemployment rates among Ghanaian youth had doubled moving from 14.8% in 1992 to 16.4% in 2000 and came close to 29% in 2009 (ISSER, 2010). In spite of the implementation of employment initiatives and interventions by government such as the National Youth Employment Programme (NYP) now the Ghana Youth Employment and Entrepreneurial Development Agency (GYEDA), Youth in Agriculture Project, Skills Training and Job Placement Programme among others, the situation of joblessness among the youth appeared to be in the rise. Institute of Social Statistics and Economic Research (ISSER) 2009 'state of the nation's economy report' revealed that about 250,000 young people enter the labour market annually, however, the formal sector is able to take on only 2% leaving 98% to strive to survive in the informal sector or remain unemployed (ISSER, 2010).

The formal sector have therefore proven incapable of absorbing the teeming masses of young people entering the job market annually, making the informal sector the only option that can offer some level of opportunity for job seekers. With agriculture and agribusiness related enterprises being the largest informal sector in Ghana, government employment policies have identified the sector as key in job creation and employment generation initiatives. As such, the National Youth Policy aims at promoting youth participation in agriculture, through the following policy objectives: (1) Promotion of the participation of the youth in modern agriculture as a viable career opportunity for the youth and as an economic and business option. (2) The provision of resources for the participation of the youth in modern agriculture (MYS, 2010).

The problem of youth unemployment in Ghana had hit all segments of youth regardless of their educational level and this poses a threat to national security and sustainable development and effective utilization of human resource based of the country. Ransford, (2012) lamented that, for the first time in the history of Ghana, the Unemployed Graduates Association of Ghana was launched in 2011 to protest against the alarming rate of youth

unemployment among all segments of the youth in Ghana.

Several policies and programmes aimed at entrepreneurial training and orientation of tertiary graduates such as the Internship for Skills and Entrepreneurial Training and Youth-in-Agribusiness modules of the Ghana Youth Employment and Entrepreneurial Development Agency (Ransford, 2012) and the introduction of entrepreneurship education in some tertiary institutions such as the Universities and Polytechnics as a way of creating awareness and encouraging graduates to consider self-employment as a career option Owusu-Ansah (2012) have been implemented. Despite these laudable policies and programmes aimed at encouraging tertiary graduates to consider self-employment venture creation as viable employment option, graduate unemployment appeared to be on the raise. For instance, according to unemployment rate estimates by Otoo *et al* (2009), while national unemployment rate reduced from 11% in the early 2000 to 5.8% in the late 2000, graduate unemployment rates increased from 14.7% in 1987 (Boateng *et al*, 2002) to over 40% in 2011 as observed by Business Guide, (2011) and Mensah, (2012).

### Background of Ghana's Agribusiness Sector

In spite of the significant role agriculture plays in the economies of most African countries, few of them have been able to capitalize on the sector's considerable potential to contribute to economic development through modernization and agribusiness enterprise development and its linkage with industrialization (World Bank, 2012). Unleashing the huge potential of the agricultural sectors, Government of Ghana, through its Food and Agriculture Sector Development Policy (FASDEP II), has highlighted the importance of inter-sectoral collaboration for developing the agricultural sector and partnering with the private sector in developing and managing agribusiness clusters through the value chain approach (MOFA, 2011 and FOA, 2013).

Ghana with a land area of some 240,000 square kilometres, produces a variety of crops in its three ecological zones, ranging from dry savannah in the north through transitional zone in the middle melt to



the wet forest south and the coastal savannah with annual rainfall varying between 800mm and 2,400mm (MOFA, 2007). The agriculture sector is made up of five major sub sectors, namely the food crops, livestock, fisheries, cocoa and forestry. The aim of the agricultural sector has always been to ensure national food security and facilitate the production of raw materials for the industrial sector and agricultural commodities for export.

The main food crops grown in the country include cassava, yams, plantains, maize, rice, peanuts, millet and sorghum, among others, with cocoa, timber and wood products, fish and fish products, shea nuts and coffee being the main export crops IFPRI (2011). Other industrial crops include cotton, oil palm, rubber, coconut and sugarcane. Government through Ghana Export Promotion Council is promoting the exportation of non-traditional export crops as part of government's export diversification programme. These efforts have resulted in an increase in the production and export of horticultural produce such as fruits and other agricultural commodities. It has attracted large commercial private companies to the production of pineapple, mango, cashew and other agricultural produce solely for export, creating an enclave of small producers supplying large export oriented companies through out-grower schemes and contract farming arrangements (NDPC, 2010). This among others further enhanced the prospects of agribusiness as an avenue for self-employed private enterprise creation. University graduates with training in agriculture can take advantage of this opportunity by establishing self-employed agribusiness enterprises to engage in the production and/or marketing of these non-traditional export commodities.

Also in spite of the fact that most of the Ghanaian labour force in the informal sector are engaged in the production, marketing and distribution of agricultural related commodities (ISSER, 2010), the country domestic agricultural production falls short of meeting the demand offers by the domestic market. Ghana's domestic agricultural production meets only 50% of domestic cereal and meat needs, 60% of domestic fish consumption and less than 30% of the raw materials needed for agro-based industries (MOFA, 2012). Ministry of agricultural review of the performance of agricultural sector for 2010 reported

that, the level of self-sufficiency in food items varies from about 30% for rice to 92% for maize, 115% for plantain, 117% for cocoyam, 214% for cassava to 350 % for yam. This production gap in relation to market demand presents market opportunity for prospective entrepreneurs in agribusiness enterprise creation; particularly graduates from the country's tertiary institutions with the requisite technical competence in agriculture and agribusiness management are better placed in harnessing this opportunity for agribusiness enterprise development.

The livestock sub sector presents yet another opportunity for agribusiness enterprise creation and provision of viable self-employment opportunities for the teeming jobless youth, bring with it economic prosperity and wealth creation. Cattle, sheep and goats, pigs, and poultry constitute the major types of livestock produced in Ghana, with the poultry industry being the largest and most successful (MOFA, 2012). In spite of the impressive growth of commercial production of farm animals over the past five years, as observed in the 2012 Ministry of Food and Agriculture Review of the Performance of the Agricultural Sector, from 2006 to 2012, meat production in Ghana is insufficient in meeting the growing local demand. Although the livestock sub sector face challenges such as low genetic material of livestock breeds, poor management practices, poor storage and preservation technologies and facilities (ibids), it offers a huge opportunity for agribusiness enterprise development and job creation.

A study by the World Bank to assess the performance of Ghana's agribusiness sector set up indicators covering the following areas: (i) access to and availability of certified seed; (ii) availability of and access to fertilizer; (iii) access to farm machinery, particularly tractor hiring services for land preparation; (iv) access to agricultural and agro-enterprise finance; (v) cost and efficiency of transport; (vi) measures of policy certainty and the orientation of the enabling environment as perceived by the private sector; and (vii) various policy, trade, and fiscal measures (World Bank, 2012).

Findings of the World Bank's assessment of the performance of Ghana's agribusiness sector, indicates that few farmers have access to improved seeds and seeds of high-yielding hybrid crops. The



assessment cited data of the Ministry of Food and Agriculture (MOFA) which indicated that, just 19 percent of the area used for maize production in 2010 was cultivated using certified seed, and only 8 percent of the area used for rice production. Report of this assessment however, noted that a number of recent government initiatives such as the enactment of national seed law referred to as the Plants and Fertilizer Act are promising.

With regard to availability of and access to fertilizer, the report noted improvement in access to and usage of fertilizer over the years. The assessment report indicated that, in the five years of 2006 to 2010, the country's fertilizer imports increased from 189,878 metric tons to 308,786 metric tons, an increase of more than 60%. Fertilizer consumption has also increased to 40 kilograms per hectare, which is just 10 kilograms per hectare short of meeting the Abuja declaration on fertilizer. Improvement of farmers' access to farm machinery was also implied in the assessment report conducted by the World Bank. The report observed that agricultural production in Ghana is labour intensive, with little use of machinery. In recent years, however, the demand for tractors has been on the rise, owing to an expansion in the amount of land that is cultivated by large commercial farms.

With regard to agricultural and agro-enterprise finance, the assessment reported that access to agricultural finance in Ghana is difficult to obtain, and where it is available, it is usually expensive (World Bank, 2012). The report also noted that agribusiness policy environment have made for a more enabling environment for the private sector and market development as captured in the Food and Agriculture Sector Development Policy (FASDEP II) (MOFA, 2011) and Private Sector Development Strategy (PSDS II) which emphasizes the need to foster public-private agro-enterprise development and management. Government recent initiative such as the subsidy on fertilizer and mechanization has been noted to play effective role in reducing cost of agricultural production in the assessment report.

## METHODOLOGY

The survey which culminated into this paper was conducted in the Nyankpala Campus of the University for Development Studies (UDS). The

University whose mission is 'to be a Home of World Class Pro-Poor Scholarship' was established by PNDC Law 279 in May 1992 to 'blend academic work with community engagement through community out-reach in order to facilitate the total development of Northern Ghana, in particular, and Ghana as whole'. The UDS was borne out of the new thinking in higher education and research which emphasizes the need for universities to play a more active role in addressing problems of the society, particularly in the rural areas (Effah, 1998). It operates a multi-campus and currently run four campuses namely the Nyankpala and Tamale campuses both in Northern Region, Wa campus in the Upper West Region and Navrongo campus in Upper East Region.

The University began academic work in September, 1993 with the first batch of thirty-nine (39) students admitted into the Faculty of Agriculture, (FOA), in the Nyankpala campus. Currently the Nyankpala campus housed three academic faculties namely, Faculty of Agriculture (FOA), Faculty of Agribusiness and Communication Sciences (FACS) and Faculty of Renewable Natural Resource Management (FRNRM). The three faculties put together currently have student population of 1,725 pursuing various disciplines of undergraduate and postgraduate courses.

## Sampling and Data collection

All final year students of 2012/2013 academic year of the Faculty of Agriculture and the Faculty of Agribusiness and Communication Sciences of the Nyankpala campus of the University for Development Studies were the target population for this study. Due to time and resource constraint, 60% of the 521 final year students of the two faculties were sampled through lottery method of the simple random sampling techniques. However, 292 questionnaires representing 93% of the target sample size were properly filled and usable. As such the sample size for this study is 292, which made up of 42 agribusiness students and 250 agricultural technology students.

The data obtained were entered into SPSS version 16.0 and analysed using descriptive statistics such as frequency counts, means, standard deviations with F-



statistics and Chi-square used to test for statistical significant differences. The results were then presented in tables

### Demographic Characteristics of Students

The 292 final year (level 400) students surveyed for this paper were generally in their youthful age with a

mean age of about 23 years old (Standard deviation of 3.69). Whilst the oldest among them was 35 years old, the youngest was 21 years old, with majority (88.7%) of the respondents being 30 years old or younger. Also more than two-third (69.7%) of the students interviewed were male with more than half of them (58.9%) coming from urban areas. Also, as shown in the Table 1, most of the students interviewed (89.4%) were single whilst only 10.6% were married.

**Table 1: Demographic Characteristics of Respondents**

Demographic Characteristics	Frequency	Percentage (%)
<b>Age (Years):</b>		
21 – 30 years	259	88.7
Above 30 years	33	11.3
<b>Mean Age = 23.13 years ( N = 292; std deviation = 3.69; Range = 21 - 35 years )</b>		
<b>Sex :</b>		
Male	204	69.9
Female	88	30.1
<b>Total</b>	<b>292</b>	<b>100.0</b>
<b>Status Of Current Place Of Resident:</b>		
Rural	120	41.1
Urban	172	58.9
<b>Total</b>	<b>292</b>	<b>100.0</b>
<b>Marital Status of Students</b>		
Single	261	89.4
Married	31	10.6
<b>Total</b>	<b>292</b>	<b>100.0</b>

Source: Analysis of field survey data, 2013

### Students Job Preference after Graduation

On a three points Likert Scale as ‘Not prefer at all’, ‘somewhat prefer’ and ‘most prefer’ the students’ job preference after graduation was assessed and the results of the analysis presented in the Table 2. The various employment types students could engage in, after finishing their course of study in the university were categorised in this paper as ‘self-employed in agribusinesses’, ‘self-employed in others sectors’ and ‘employed by Public/Private Sector’. Results of the analysis revealed that more than half (54.8%) of

the 292 students interviewed do not prefer agribusiness at all, as an avenue for self-employment after graduation, with only 8.6% of them ranking self-employment in agribusiness as their most preferred job after graduation. With regard to students’ preference in other areas of self-employment apart from agricultural related enterprise, about 54.1% and 31.8% ranked their preference as ‘somewhat prefer’ and ‘most prefer’ respectively. The findings confirms the that of Ayanda *et al*, (2012) that most agricultural students of Kwara State University prefer to be employed in



areas outside their field of study such as banks and international organizations.

The results also established that undergraduate students' preference of being employed in either the

public or private sector after graduation is high. With about 61.3% of the 292 students interviewed ranking being employed in either private or public sectors as their most prefer job type after graduation, in spite of the escalating graduation unemployment rate the country is currently experiencing (see Mensah, 2012; Owusu-Ansah, 2012 and Business Guide, 2011).

**Table 2: Distribution of Students Job Preference**

Job Type	Level of Preference						Total
	Not prefer at all		Somewhat prefer		Most prefer		
	Freq.	%	Freq.	%	Freq.	%	
Self-employed in Agribusiness	160	54.8	107	36.6	25	8.6	292
Self-employed in others Enterprises	41	14.0	158	54.1	93	31.8	292
Employed by Public/Private Sector	85	29.1	28	9.6	179	61.3	292

Source: Analysis of field survey data, 2013

**Students' Preference of Agribusiness Enterprises**

In spite of their background as students of agriculture, out of the 292 students interviewed for this study, only 132, representing 45.3% ranked their job preference in agribusiness as either somewhat prefer or most prefer and as such indicated their intention to take up agribusiness as self-employed enterprise after completing their studies. However, they mentioned various agribusiness enterprises they preferred to take up after graduation. Table 3 presents the distribution of students' preference in the various agribusiness enterprises.

From Table 3, about 31.8% preferred livestock and poultry production, while 24.2% preferred crop production as agribusiness enterprise they wish to engage in as Self-employed enterprise. Also 17.4% of the 132 students who preferred self-employment in agribusiness wish to engage in agro-processing and agricultural marketing as their preferred enterprise upon graduation while only 8.3% preferred to engage in fishery and aquaculture as self-employment enterprise after graduation. Agro-forestry and tree crop production was preferred by 17(12.9%) respondents while 7 (5.3%) respondents also preferred bee keeping/snail/mushroom production as a self-employment enterprise.

**Table 3: Distribution of Students' preference of Agribusiness Enterprises**

Agribusiness Enterprise	Frequency	Percent (%)
Crop Farming	32	24.2
Livestock and Poultry Enterprise	42	31.8
Agro-forestry and Tree crops	17	12.9
Agro-processing and Agricultural marketing	23	17.4
Fishery and Aquaculture	11	8.3
Bee keeping/Snail/Mushroom Production	7	5.3
<b>Total</b>	<b>132</b>	<b>100.0</b>

Source: Analysis of field survey data, 2013



### **Influence of students' perception on their intention**

In measuring students' perception towards the prospects of self-employment in agribusiness, students were asked to score their agreements with regard to certain statements constructed to elicit their response on a five point Likert Scale as 'Strongly Disagreed' (SD) = - 2; 'Disagreed' (D) = -1; 'Undecided' (U) = 0; 'Agreed' (A) = 1 and 'Strongly Agreed' (SA) = 2. This approach of measuring perception was used by Ayanda, *et al*, (2012) in measuring students' perception of Kwara State University towards farming. Also, Oloruntoba, (2008) in assessing agricultural Students' Perceptions of Farm Practical Year Programme at University of Agriculture, Abeokuta, Nigeria used four point Likert scale in measuring students' perception.

Analysis of average scores depicting students' perceptions regarding 14 ranked statements; gauging students general perception of the prospects of agribusiness as an avenue for self-employment, established significant difference at both 5% and 1% levels of significant between those who intend to engage in self-employment in agribusiness and those who do not. The distribution of the average scores and F-statistics between students with the intention to engage in self-employed agribusiness enterprises and those who do not is presented in the Table 4.

The highest agreement ranked statements by students intending to engage in self-employment in agribusiness after graduation were '*agribusiness have a high prospects of success in Ghana*' (M = 1.89), '*agriculture in Ghana have a lot of untapped potential*' (M = 1.39), '*agricultural related enterprises are very lucrative*' (M= 1.09), '*agribusiness befit my status as a university graduate*' (M = 0.92) and '*it is easy to create self-employment in agribusiness*' (M= 0.54). whereas the following statements were ranked highest by those students who said they do not intend to take up future self-employment in agribusiness; '*agribusiness has a high potential for self-employment in Ghana*' (M = 1.69), '*many Ghanaians have made a lot of fortunes from agriculture*' (M = 1.65), '*UDS curriculum had equipped me to be successful in agribusiness*' (M = 1.45), '*I have the requisite technical knowledge to be a successful agricultural entrepreneur*' (M= 1.36),

*'UDS Third Trimester Field Practical (TTFP) offered me a valuable experience to engage in agribusiness* (M= 1.21) and '*government policies favour agricultural enterprise creation*' (M= 0.49).

As shown in the Table 4, students with the intention to engage in agribusiness after graduation were found more likely with a mean score of 0.54 to agree with the statement that '*it is easy to create self-employment in agribusiness*' than those who do not intend to engage in agribusiness who generally were undecided (with a mean score of 0.13) regarding the easiness of establishing agribusiness after graduation. That could account for them deciding against seeking self-employment in agribusiness. With regard to the statement that '*agricultural related enterprises are very lucrative*' both students intending to engage in self-employment in agribusiness and those who do not, generally agreed. However, on the five point Likert scale, students with intention of engaging in self-employment in agribusiness scored an average of 1.09 as against 0.74 mean score of those students who do not intend to engage in self-employment in agribusiness. Implication of the results is that students with intention to engage in self-employment in agribusiness are more inclined to agree that agricultural related enterprises are very lucrative than those who do not intend to take up agribusiness as future self-employment avenue.

Contrarily to expectation, students who do not intend to engage in agribusiness as future self-employment avenue hold strong perception that agribusiness have a high potential for self-employment in Ghana and that many Ghanaians have made a lot of fortune from agribusiness than those students who intend to take self-employment in agribusiness upon graduation. With a mean score of 1.69, students who do not intend to engage in agribusiness generally agreed strongly that agribusiness has a high potential for self-employment compared with 1.47 mean score of students intending to take up agribusiness as an avenue for future self-employment. It can therefore be argued that some other factors rather than students perception on the potential of self-employed enterprise creation in the agribusiness sector, might be influencing students intention to engage in future self-employment in agribusiness. Also with a mean score of 1.65 students who do not want to engage in self-employed enterprises in agribusiness strangely



agreed strongly with the statement that ‘many Ghanaians have made a lot of fortunes from agriculture’ while those who intend to engage in agribusiness merely agreeing with the statement scoring an average of 1.28 on the five point Likert scale. However, students intending to engage in agribusiness as future self-employment enterprise strongly agreed (M=1.89) with the statement that ‘agribusiness have a high prospects of success in Ghana’ and as such perceiving agribusiness as a viable self-employed enterprise avenue, while those who do not want to take up agribusiness as a future self-employed enterprise merely agreed with the statement (M=1.38). Thus students intending to engage in self-employment in agribusiness are more likely to have a strong positive perception about the prospects of agribusiness in Ghana than their colleagues who do not foresee themselves engaging in agribusiness as a self-employed entrepreneur.

Both categories of students; those who intend to engage in self-employed agribusiness enterprise after completing their course of studies and those who do not were of the perception that agriculture in Ghana has a lot of untapped potential. Those who intend to engage in agribusiness as a future self-employment avenue merely agreed (M=1.39) with the statement that ‘agriculture in Ghana has a lot of untapped potential’ the same agreement rank (M= 1.26) was scored by those students who do not intend to take up agricultural related enterprises as future source of self-employment. Also both categories of students

rank low their agreement on the statement that ‘government policies favour agricultural enterprise creation’. Whiles students who intend to take up agribusiness as a source of future self-employment after graduation have a mean score of 0.48; those who do not intend to engage in agribusiness as future self-employment have a mean score of 0.49 on the statement. Implying that both groups hold a low perception of the favourability of government policies in promoting self-employed enterprise development in agribusiness. This perception was observed from the study in spite of government agriculture policies as captured in the Food and Agriculture Sector Development Policy (FASDEP I & II), Ghana Poverty Reduction Strategy (GPRS I & II), Medium Term Agricultural Sector Investment Plan (METASIP) for 2011 – 2015 and the recent Ghana Shared Growth and Development Agenda (GSGDA). All these policies initiatives identified modernization of agriculture and encouraging the youth to go into agriculture as a means for solving the unemployment and food security problems in the country and ensuring general prosperity of the populates. Also the implementation of several programmes and projects such as the Youth in Agriculture Programme, the Block Farming Programme, the Agriculture Services Sub-sector Investment Programme (AgSSIP), the National Service in Agriculture among others were not seen to be convincing enough by students interviewed for this study.

**Table 4: Distribution of the mean score of students’ perception**

Statement	Intention	Mean (M)	F	df	Sig.
It is easy to create self-employment in agribusiness	Yes (n= 132)	0.54	7.75	290	0.01
	No (n= 160)	0.13		251.59	
Agricultural related enterprises are very lucrative	Yes (n= 132)	1.09	127.54	290	0.00
	No (n= 160)	0.74		234.66	
Agribusiness has a high potential for self-employment in Ghana	Yes (n= 132)	1.47	30.82	290	0.00
	No (n= 160)	1.69		243.28	
Many Ghanaians have made a lot of fortunes from Agriculture	Yes (n= 132)	1.28	36.05	290	0.00
	No (n= 160)	1.65		229.62	
Agribusiness have a high prospects of success in Ghana	Yes (n= 132)	1.89	104.51	290	0.00



	No (n= 160)	1.38		220.22	
Agriculture In Ghana has a lot of untapped potential	Yes (n= 132)	1.39	3.51	290	0.06
	No (n= 160)	1.26		285.57	
Government policies favour agriculture enterprise creation	Yes (n= 132)	0.48	3.58	290	0.06
	No (n= 160)	0.49		272.64	
Agriculture is a less risk business enterprise in Ghana	Yes (n= 132)	-0.46	2.08	290	0.15
	No (n= 160)	-0.37		270.21	
Agriculture is a business and not a way of life	Yes (n= 132)	0.89	5.16	290	0.02
	No (n= 160)	1.28		261.11	
Agribusiness enterprise befits my status as a university graduate	Yes (n= 132)	0.92	59.17	290	0.00
	No (n= 160)	0.51		278.22	
UDS Curriculum had equipped me to be successful in agribusiness	Yes (n= 132)	1.02	3.95	290	0.05
	No (n= 160)	1.45		226.25	
UDS TTFP offered me a valuable experience to engage in agribusiness	Yes (n= 132)	0.74	34.92	290	0.00
	No (n= 160)	1.21		213.00	
I made the right choice by pursuing agriculture or agribusiness	Yes (n= 132)	-0.07	14.22	290	0.00
	No (n= 160)	0.06		288.30	
I have the requisite technical knowledge to be a successful agricultural entrepreneur	Yes (n= 132)	1.15	1.57	290	0.21
	No (n= 160)	1.36		244.41	

Source: Analysis of field survey data, 2013

### Personal Attributes of Students and Agribusiness Intention

The paper examined personal characteristics of students who have indicated their intention to engage in self-employment in agribusiness enterprises after graduation and those who do not intend to engage in such as enterprises, with the aim of determining whether students' personal attributes significantly influence their intention to take up agribusiness enterprise as an avenue for self-employment. A Chi-square analysis was used to test whether there is statistical significant relationship between students' personal attributes and their intention to create self-employment in agribusiness upon completion of their studies at 5% level of significant and the results presented in Table 5. As shown in the Table, age, marital status, place of domicile, parental educational background of students, practical agricultural experience and risks tolerance of respondents with intention to engage in self-employment in agribusiness differ significantly at 5% level of

significant from those who do not intend to take up agribusiness as a source of future self-employment avenue.

Age was found as a significant predictor of agricultural students of UDS intention to engage in agribusiness as a future self-employment avenue after graduation. A chi-square analysis ( $\chi^2 = 8.65$ ;  $df = 1$ ;  $N = 292$ ;  $p < 0.05$ ) indicated that young students are more likely than older ones to intend to take up self-employed agricultural related enterprises after completion of their course of studies. The studies found that a little below half (48.3%) of the 259 students who were 30years or younger intent to engage in self-employment in agribusiness as compared to only 21.2% of students older than 30years who also want to take up self-employed agribusiness enterprises upon graduation. Also married students interviewed were found to differ significantly ( $\chi^2 = 11.84$ ;  $df = 1$ ;  $N = 292$ ;  $p < 0.05$ ) from their colleagues who were single in their intention regarding taking up self-employed



enterprises in agribusiness. About 48.7% of married students interviewed and 16.1% of those who were single intent to engage in agribusiness as a future self-employment avenue after graduation while 51.3% of the married respondents and 83.9% of the respondents who were single do not intent to take up self-employed agribusiness enterprises as a future employment option.

Contrarily to expectation, students from urban areas were found more likely to be intending to take up future self-employment in agribusiness than those from rural areas. The Chi-square analysis ( $\chi^2 = 10.02$ ;  $df = 1$ ;  $N = 292$ ;  $p < 0.05$ ) conducted indicates that students place of domicile as either rural or urban significantly influence their intention to take up agribusiness enterprises as a source of future self-employment avenue. As shown in the Table 5, about 34.2% of students from rural areas as against 52.9% of their counterparts from urban areas intend to engage in agribusiness as a future self-employment avenue. Likewise about 65.8% of students coming from rural areas as compare with 47.1% of those from urban areas do not intend to engage in agribusiness as a source of future self-employment venture after graduation.

Also students' parental educational background was found to have a significant relationship with their intention to engage in self-employment in agribusiness after graduation. A Chi-square analysis ( $\chi^2 = 48.99$ ;  $df = 3$ ;  $N = 292$ ;  $p < 0.05$ ) undertaken indicates that students whose parents have no formal educational background were more likely to intend to take up agribusiness enterprises as source of future self-employment than those whose parents have some level of formal educational background. A little under two- third (64.1%) of students whose parents have no formal educational background and only 19.4% of students whose parents have tertiary level of education intent to engage in agribusiness enterprise as an avenue for self-employment after their course of studies. On the other hand, about 80.6% of students whose parents have tertiary level educational background and 35.9% and 77.6% of those whose parents have no formal educational background and basic educational background respectively indicated their intention to take up agribusiness as a self-employment avenue after graduation.

Students experience regarding practical agriculture as to whether they have ever been engaged directly in the cultivation of crop or rearing of animal or not, was found to be significantly related to their intention to take up agribusiness as a future self-employment venture after graduation. A Chi-square test conducted as 5% level ( $\chi^2 = 7.99$ ;  $df = 1$ ;  $N = 292$ ;  $p < 0.05$ ) revealed that students with some experience in practical agriculture rather were less likely to be intending to engage in self-employment in agribusiness than those who have never been directly engaged in the cultivation and rearing of animals. About 33% of students with some level of practical experience in agriculture compared with 50.7% of those without such experience intend to engage in agribusiness as a self-employment enterprise.

Risks tolerance is imperative in enterprise development and entrepreneurial practice. The development and running of enterprise is a risk taking activities which require some level of tolerance from entrepreneurs. In this study, students were asked to indicate whether they perceive themselves as either risk averse or risk loving and their responses were cross tabulated with their intention to engage in agribusiness as a future self-employment enterprise after graduation. A Chi-square test conducted at 5% level of significant ( $\chi^2 = 8.81$ ;  $df = 1$ ;  $N = 292$ ;  $p < 0.05$ ) found students who perceived themselves as risk averse to differ significantly in terms of their intention to engage in self-employment in agribusiness from those students who perceived themselves to be risk loving. More than half (53.2%) of students who ranked their risk tolerance level as 'risk loving' as against only 35.8% of those who were 'risk averse' intent to take up agribusiness enterprise as a source of future self-employment avenue. Likewise about 64.2% of the respondents who perceived themselves as risk averse and 46.8% of the risk loving respondents do not intent to engage in agribusiness as a self-employment option after graduation.

However, students' sex ( $\chi^2 = 2.19$ ;  $df = 1$ ;  $N = 292$ ;  $p < 0.05$ ), parental main occupation ( $\chi^2 = 0.038$ ;  $df = 1$ ;  $N = 292$ ;  $p < 0.05$ ), and programme being pursued in the university ( $\chi^2 = 0.46$ ;  $df = 1$ ;  $N = 292$ ;  $p < 0.05$ ) were not significantly related to their intention to engage or not to engage in self-employment in agribusiness after graduation. As shown in the table



5, about 48.7% of male and 38.6% of female students interviewed intent taking up agribusiness as their future source of self-employment. Also 44.8% of students whose parents' main occupation is in the area of self-employment and 46.1% of those whose parents' main occupation is employee of private or public organisations intent engaging in agribusiness as a source of self-employment. The study also found that half (50.0%) of students studying BSc. Agribusiness and 44.4% of those studying BSc. Agricultural Technology who were interviewed for this study intent to take up agribusiness as a self-employment enterprise.

Students mentioned difficulties in obtaining startup capital as results of limited availability of credit facilities and high cost of borrowing as a main

constraint in engaging in agribusiness as a self-employed future employment option. This confirms the findings of World Bank, 2012 Ghana Agribusiness Indicators Survey. Other constraints cited were difficulties in obtaining land, the high risk nature and uncertainty associated with agricultural production and lack of government commitment in supporting young entrepreneur in spite of the laudable policy frameworks which they believed are not effectively being implemented. In terms of entrepreneurial training and business management skills, students interviewed expressed their lack of knowledge in entrepreneurship and business management skills because there are less concerted efforts in incorporating entrepreneurial development and training in the educational curricula at the tertiary level for students pursuing agriculture.

Table 5: Crosstabulation of Students' Personal Attributes and Intention

Variables	Do you intend to take up self-employment in Agribusiness			$\chi^2$ Test
	No	Yes	Total	
<b>Age*</b>				
30years or younger	134 (51.7)	125(48.3%)	259(100%)	$\chi^2 = 8.65; df = 1; N = 292; p <0.05$
More than 30years	26(78.8%)	7(21.2%)	33(100%)	
<b>Total</b>	<b>160</b>	<b>132</b>	<b>192</b>	
<b>SEX</b>				
Male	106 (52.0%)	98(48.0%)	204(100%)	$\chi^2 = 2.19; df = 1; N = 292$ $p <0.05$
Female	54(38.6%)	34(38.6%)	88(100%)	
<b>Total</b>	<b>160</b>	<b>132</b>	<b>192</b>	
<b>Marital Status*</b>				
Married	134(51.3%)	127(48.7%)	261(100%)	$\chi^2 = 11.84; df = 1; N = 292$ $p <0.05$
Single	26(83.9%)	5(16.1%)	31(100%)	
<b>Total</b>	<b>160</b>	<b>132</b>	<b>292</b>	
<b>Place of Domicile*</b>				
Rural	79(65.8%)	41(34.2%)	120(100%)	$\chi^2 = 10.02; df = 1; N = 292$ $p <0.05$
Urban	81(47.1%)	91(52.9%)	172(100%)	
<b>Total</b>	<b>160</b>	<b>132</b>	<b>292</b>	
<b>Parental Education Level*</b>				
No Formal Education	56(35.9%)	100(64.1%)	156(100%)	$\chi^2 = 48.99; df = 3; N = 292$ $p <0.05$
Basic Education	45(77.6%)	13(22.4%)	58(100%)	
Secondary Education	30(71.4%)	12(28.6%)	42(100%)	
Tertiary Education	29(80.6%)	7(19.4%)	36(100%)	
<b>Total</b>	<b>160</b>	<b>132</b>	<b>292</b>	
<b>Parental Main Occupation</b>				
Self-employed	112(55.2%)	91(44.8%)	203(100%)	



Employed	48(46.1%)	41(46.1%)	89(100%)	$\chi^2 = 0.038$ ; df = 1; N = 292 p <0.05
<b>Total</b>	<b>160</b>	<b>132</b>	<b>292</b>	
<b>Programme</b>				
Agribusiness	21(50.0%)	21(50.0%)	42(100%)	$\chi^2 = 0.46$ ; df = 1; N = 292 p <0.05
Agric. Tech.	139(55.6%)	111(44.4%)	250(100%)	
<b>Total</b>	<b>160</b>	<b>132</b>	<b>292</b>	
<b>practical agriculture Experience*</b>				
Yes	61(67.0%)	30(33.0%)	91(100%)	$\chi^2 = 7.99$ ; df = 1; N = 292 p <0.05
No	99(49.3%)	102(50.7%)	201(100%)	
<b>Total</b>	<b>160</b>	<b>132</b>	<b>292</b>	
<b>Risk Tolerance*</b>				
Risk Averse	86(64.2%)	48(35.8%)	134(100%)	$\chi^2 = 8.81$ ; df = 1; N = 292 p <0.05
Risk Loving	74(46.8%)	84(53.2%)	158(100%)	
<b>Total</b>	<b>160</b>	<b>132</b>	<b>292</b>	

Source: Analysis of field survey data, 2013.

\* = significant at 5% level of significant.

### Conclusion and Recommendations

In spite of the fact that all the 292 students interviewed for this study were pursuing either Bsc. Agricultural Technology or Bsc. Agribusiness; both being agricultural related programmes, less than half (45.5%) of them indicate their intention to take up future self-employment in agribusiness ranking their preference level as either most preferred or somewhat preferred. Majority of the respondents intending to take up agribusiness enterprises as a source of future self-employment avenue preferred livestock and poultry rearing, and crop production as an agribusiness area of interest.

The studies found significant difference at both 5% and 1% levels of significant between students who intent to engage in self-employment in agribusiness and those who do not, in terms of their perceptions about the prospects of agribusiness in Ghana. The highest agreement ranked statements by students intending to engage in self-employment in agribusiness after graduation were *'agribusiness have a high prospects of success in Ghana'* (M = 1.89), *'agriculture in Ghana have a lot of untapped potential'* (M = 1.39), *'agricultural related enterprises are very lucrative'* (M= 1.09),

*'agribusiness befit my status as a university graduate'* (M = 0.92) and *'it is easy to create self-employment in agribusiness'* (M= 0.54).

A Chi-square analysis conducted at 5% found age, marital status, place of domicile, parental educational background of students, practical agricultural experience and risks tolerance to have significant influence on students' intention to take up agribusiness as a source of future self-employment avenue or not.

Difficulties in obtaining startup capital as results of limited availability of credit facilities and high cost of borrowing, lack of access to land, high risk nature and uncertainty associated with agricultural enterprises and lack of government commitment in supporting young entrepreneur desiring to go into agriculture. In terms of entrepreneurial training and business management skills, students interviewed expressed their lack of knowledge in entrepreneurship and business management skills.

It is recommended that tertiary students pursuing agriculture and agricultural related programmes should be exposed to practical training in agriculture and be properly oriented regarding the prospects of agriculture as an avenue of self-employed job creation. Policy makers and implementers need to do much by way of encouraging broad base participation of the youth and vigorous implementations of



policies and programmes designed to get the youth, especially graduates from our tertiary institutions into agriculture, in order to convince them of government commitment to agribusiness enterprise development as an avenue for job creation. Also it recommended that entrepreneurship training and enterprise management skills be incorporated into the curricula of tertiary programmes to help equip graduates with the requisite knowledge in enterprise development and management.

## REFERENCES

1. **Ajzen, I. (1988).** Attitude, Personality, and Behavior. Open University Press, Milton Keynes. Buckingham.
2. **Ajzen, I. (1991).** The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
3. **Asante, F (2011)** ‘State of the Ghanaian Economy 2010’, *Business and Financial Times*, Ghana, September Audretsch, D.B. and Fritsch, M. (1994) “The Geography of Firm Births in Germany,” *Regional Studies*, 28(4), July, 359-365
4. **Ayanda I.F., Olooto F., Motunrayo A., Abolaji G.T. , Yusuf O. J. , Subair S.K. (2012).** ‘Perception of Kwara state university agricultural students on farming as means of future livelihood’, *International Journal of AgriScience Vol. 2(11): 1053-1061.*
5. **Boateng, K. F& Ofori-Sarpong, E. (2002).** *An analytical study of the labour market for tertiary graduates in Ghana.* A World Bank/National Council for Tertiary Education and the National Accreditation Board project. Available on: <http://ddp-ext.worldbank.org/EdStats/GHAWp02a.pdf> (accessed on June, 2013).
6. **Budget Statement and Economic Policy for Fiscal Year 2012,** Government of Ghana, Accra.
7. **Business Guide (2011, November 22).** *Graduate unemployment soars.* Available on: <http://www.businessguideghana.com/?p=4965> (accessed on June, 2013).
8. **Eagly, A. H., & Chaiken, S. (1993).** The psychology of attitudes. Fort Worth: Harcourt Brace Jovanovich.
9. Economic Research (ISSER) University of Ghana, Legon Accra.
10. **Effah, P. (1998).** An Address at a Students’ Symposium, 14th May. Nyankpala Campus, UDS, Tamale.**FAO. (2010a).** *Rural youth employment in developing countries: A global view.*
11. **FAO (2013)** “*Agribusiness Public-Private Partnerships: A country report of Ghana*”. Food and Agriculture Organization of the United Nations Rome, 2013
12. **Fishbein, M., & Ajzen, I. (1975).** Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.
13. **George Owusu Essegbey (2008).** ‘Final Draft Report on Agribusiness Innovation Study – The Ghana Experience’. Science and Technology Policy Research Institute (STEPRI-CSIR), Accra, Ghana.
14. **GTZ. (2001).** Funding development-oriented agricultural research and extension. Proceedings of a workshop, Feldafing, Germany.
15. **IFPRI. (2011).** “Cropping Practices and Labor Requirement in Field Operations for Major Crops in Ghana: What Needs to be Mechanized?” March. IFPRI Discussion Paper 01074.
16. **ILO. (2010b).** *Global employment trends for youth.* Geneva.
17. **ISSER (2010)** *The State of the Ghanaian Economy in 2009* (Accra: ISSER), pp 186-188.
18. **ISSER (2013)** *The State Of The Ghanaian Economy In 2012.* Institute of Statistical, Social and
19. **Mensah, M.S.B. & Nyadu-Addo, R. (2012).** Juxtaposition of the role of small businesses and the state in Ghana’s economic development. *International Business & Management*, 5 (1), 75-82.
20. **Ministry of Youth and Sports, 2010.** National Youth Policy.
21. **MOFA (2007),** Food and Agricultural Sector Development Policy (FASDEP II). Available on <http://www.MOFA.gov.gh/FASDEP%20II> (Accessed on 10<sup>th</sup> July, 2013)
22. **MOFA (2010)** , ‘Medium Term Agriculture Sector Investment Plan (METASIP) 2011 – 2015
23. **MOFA , 2012,** ‘Performance Of The Agricultural Sector In Ghana: 2006-2012. Gross Domestic Product (GDP) At 2006 Prices By Economic Activity :2006-2012
24. **National Development Planning Commission. (NDPC) (2010).** *Ghana Shared Growth and Development Agenda (GSDA I) 2010 – 2013,* NDPC, Accra.
25. **Nurul Huda, Nova Rini and Purnama Putra (2012).** *The Analysis of Attitudes, Subjective Norms, and Behavioral Control on Muzakki’s Intention to Pay Zakah.* *International Journal of Business and Social Science Vol. 3 No. 22 [Special Issue – November 2012]*



26. **Oloruntoba A. (2008)**. 'Agricultural Students' Perceptions of Farm Practical Year Programme at University of Agriculture, Abeokuta, Nigeria', *Agriculturae Conspectus Scientificus Vol. 73 (2008) No. 4 (245-252)*.
27. **Otoo, K.N., Osei-Boateng, C. & Asafu-Adjaye, P. (2009)**. *The labour market in Ghana. A descriptive analysis of the labour market component of the Ghana living standards survey (V)*. Ghana Statistical Service Research
28. **Owusu-Ansah, W. & Poku, K. (2012)**. Entrepreneurship education, a panacea to graduate unemployment in Ghana? *International Journal of Humanities and Social Sciences*, 2(15), 211-220.
29. **Ransford Gyampo (2012)**. 'Youth Participation in Youth Programmes: The Case of Ghana's National Youth Employment Programme'. *The Journal of Pan African Studies*, vol.5, no.5, June 2012.
30. **Shook, C., & Bratianu, C. (2010)**. Entrepreneurial intent in a transitional economy: an application of the theory of planned behavior to Romanian students. *International Entrepreneurship and Management Journal*, 6, 231-247.
31. **World Bank, (2012)** *Agribusiness Indicators in Ghana*. Economic And Sector Work Report Number 68163-Gh Economic. Washington DC 20433