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Impact of Sustainable Training on Agribusiness Productivity: A Case Study from Agribusiness Actors of Ondo State Nigeria

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Abstract **Original Research Article**

Training is an essential aspect of manpower development that is critical for ensuring sustainable impact of agribusiness productivity. Training is one of the management principles that assist in maintaining the level of productivity of an organization. This research study was embarked upon purposefully to examine the impact that sustainable training has on Agribusiness productivity. The article revealed some of the factors that necessitated the need for training and the problems militating against sustainable training to achieve greater agribusiness productivity. The research findings showed that the training of agribusiness actors has significant influence on agribusiness productivity. The result indicated that sustainable training of agribusiness actors has greater impact on agribusiness productivity when compared with the use of other initiative programs needed to boost the level of agribusiness productivity and income generation. Interventional measures such training on technological advancement and combination of other initiative programs along with training are recommended to boost agribusiness activities to assist productivity. The results of this study may be relevant in developing strategies to improve agribusiness productivity among agribusiness actors in Nigeria and other countries.

Keywords: Training, Agribusiness, Productivity, Sustainability, Initiative Programs

INTRODUCTION

Transformation of agribusiness from its subsistence level with lower productivity to a modern system that facilitates greater production requires technical know-how to achieve improved productivity in agribusiness activities. Training of agribusiness actors is a crucial input that can aid the prompt transfer of technological ideas that can improve their performance and invariably raise their standard of living. A lot of agribusiness actors do not see a need for training which makes them remain at subsistence level of agribusiness production while some seldom undergo training to enhance their productivity (Tambi, 2019). Agribusiness actors need to change their traditional methods of farming to give room for training on innovations that can improve their performance (Kiraly et al., 2023). There is a need to ensure a sustainable training of workers to ensure sustainability of the level of their productivity. Training of agribusiness actors should be done periodically in a sustainable manner. Lack of sustainable requisite training about modern agribusiness technology is one of the major factors responsible for low yield among the agribusiness actors. Therefore, sustainable training is essential to achieve great impact that is sustainable in terms of agribusiness productivity.

Training is a part of management activities that is essential for providing relevant special knowledge to function and operate efficiently within an organization (Dorman Price, 2005). Training of agribusiness actors is highly essential to educate them in order to erase the pre-conceived traditional line of thought to give room for improvement in their business operation that can positively impact on their socio-economic condition.

LITERATURE REVIEW

Several research studies have been done on training by numerous authors among which are Bharthvajan R, S and Fabiyola Kavitha (2019) “Impact of Training on Employee Productivity”. Tambi (2019) “Agricultural Training and Its Impact on Food Crop Production” etc. Their inputs on training have been pertinent. However, none has specifically examined Impact of sustainable training on Agribusiness productivity.

This study is intended to bridge the gap between the past and future research and to contribute to the body of existing knowledge on training and its impact on Agribusiness' productivity.

The concept of training is technical and mechanical improvement of the skills of personnel. Training is a process through which a person enhances and develops his/her efficiency ,capability and effectiveness at work by improving and updating knowledge and skills to attain job satisfaction" (Reddy and Kumar, 2021). Oxford Advance learner's Dictionary views training as the process of preparing someone for a job. Similarly Stemetz et al (1995) are of the opinion that training is a process that entails organized and systematic procedures for learning technical knowledge essential for development under definite period of time. Training plays active roles in increasing performance in terms of quantity and quality (Bharthvajan and Fabiyola, 2019).

The word agribusiness portrays total view about agriculture and its business affiliated activities which covers numerous functions, operations, and processes that are engaged in current ways of producing and distributing food. Agribusiness encompasses various activities which are carried out in and out of farm to when food finally gets to table for consumption (FAO, 2009). Chen (2019) in his view defines agribusiness as "the business sector encompassing farming and farming related commercial activities" for the purpose of ensuring food security and income generation. USAID (2008) simply defined agribusiness as "business related to agriculture, including farming, processing, exporting, input suppliers, trading and retailing".

The concept of productivity has to do with measure of output quantity based on the input quantity. According to Krugman (1994), productivity is a measure of an average efficiency with which production factors or inputs are used for production of certain level of output. It is an essential element of economic growth. It is a key dependent variable for comparison. Productivity is a tool for evaluation of performance rate in production (Yang et al, 2018).

Identifying the areas of need for training or change in agribusiness operations and implementation of the training scheme is a major tool necessary for ensuring needed changes in agribusiness productivity. According to Aromolaran et al, (2016) there is a wide range of areas where training is needed in agribusiness to improve the productivity of agribusiness actors. Where training is needed in agribusiness production can be classified basically into two namely; crop production and animal production. Under crop production, training may be needed in seed treatment and selection, methods of fertilizer application and allotted time, control of pest and diseases, control of weeds with appropriate chemicals or cultural controls, advanced system of irrigation in crop production, packaging of produce from crops etc. Training is essential to boost crop production for greater productivity (Reddy and Kumar, 2021). On the other hand, training in animal production may be needed about the use of animal livestock breeds with desirable characteristics, control of pest and diseases affecting livestock, routine management practices for livestock, packaging of farm animal products etc. According to Alerus and Lazarus (2021) reduction in the cost of production, timeliness of operation, improved yield, marketing and storage of farm produce of both crop production and animal, provision of services to aid agribusiness productivity etc necessitate training for effective and sustainable agribusiness.

Training plays significant roles in poverty alleviation, empowerment, food security and growth of economy Tambi (2019). Training exercise in agribusiness should capture the key stakeholders that are involved in agribusiness to enhance their productivity index. Adequate training of young people about agribusiness enhancement schemes which reduce drudgery in agribusiness can help to facilitate participation and adoption of agribusiness as career if it provides desirable and convincing outcome to them. Training is very essential for owners of agribusiness firms as well as the employees working in their firms to facilitate higher level of productivity.

Factors Stimulating the Need for Training and Development

The desire to undergo training program may not be realized until the realization of certain needs or situations come into play or triggers it. The need for training in any organization could be stimulated by certain factors. These factors prompt the urgent need to embark on training.

Decline in the productivity margin of workers in an organization could raise the need for training. The sustenance of every organization largely depends on its productivity level. The survival of an organization will become very narrow if there is a decline in the rate of productivity. Decline in productivity of agribusiness actors will necessitate training to boost productivity which is essential for survival of an organization in certain line of business (Aromolaran et al, 2016).

The need for it may stem from poor performance in carrying out certain operations among workers. Training becomes very imperative if poor performance is observed in a production process among workers of a firm. Poor performance is strongly correlated with decline in productivity. Training is needed to change from state of poor performance to better performance in production process among workers of a particular firm (Mariyono et al, 2021). According to Reddy and Kumar (2021) purchase of new machine for replacing old ones may necessitate training as the mode of operation of certain new machine in an organization may be entirely different from the old ones that have been in use over time. Training of employees to acquire pertinent skills would be very paramount for the use of the new machine to boost agribusiness performance for greater productivity (Bharthvajan and Fabiyola, 2019).

Training becomes imperative when there is increase in the level of complaints from customers. Incessant complaints on agricultural produce from the customers are indication that they do not derive an expected satisfaction or value from a particular agricultural commodity. If the complaints continue without any action being taken by the agricultural firm concerned, such firm will experience a decline in the level of

patronage. Once this is observed, there is a need for research to be made on what the consumers want and prompt training program to be carried out to meet the taste of the targeted consumers. Training program organized to meet consumers taste will definitely boost productivity level of an organization (Rotowa & Ayadi, 2020).

Furthermore, Low level of patronage and increase in the level of competition is a pointer that there is need for training. When the level of patronage is low in an organization it may be as a result of many factors. It may be due to change in the taste of consumers, poor quality of production, paucity of fund, lack of desired satisfaction etc. low level of patronage is a sign to a producer that there is a need to put in place necessary strategies to overcome the challenge. This may be in form of training program to improve or increase agribusiness products to meet consumers' satisfaction (Alerus and Lazarus, 2021). Whenever there is increase in the number of competitors producing a particular commodity, the consumers will have wider scope of opportunity to choose the commodity they want among the numerous substitutes. The firm that cannot compete favorably well may be brushed aside in the production line. The producer that wants to enjoy more patronage and remain relevant in a competitive line of business will have to ensure regular training on how to improve on his/ her product to meet the taste of the consumers (Bharthvajan and Fabiyola, 2019).

Planning, Implementation and Evaluation of Training Program

Training program for participants entails 3 main stages. These include the planning stage (which entails preparation for training), implementation (delivery) and evaluation stage (assessment of training program) (F.A.O. 2012).

The planning Stage: The planning stage should include objectives of the training, mobilization of the rural farmers and provision of necessary materials that the training program requires to meet the needs of the farmers. Involvement of some of the trainees will give them a good sense of belonging and willingness to contribute and participate towards the success of the training exercise. Combination of methods could be adopted and as well demonstrated to drive home the training program (Hassen, 1993).

Implementation stage is a critical stage where objective and goal of the training is to be delivered (Reddy and Kumar 2020). The evaluation stage is a stage that helps in assessing the extent to which the objectives of the training has been achieved. Assessment of the level of compliance or implementation of training determines the level of adjustment that is required to be made. Impact assessment will help in planning towards subsequent training that would be organized.

Other Initiatives to Enhance Agribusiness Productivity

There are other types of initiatives that can be used to improve the performance of agribusiness actors to boost their productivity. Among the available initiatives are;

Seminars Method: seminar method is an initiative approach that entails coming together of farmers or agribusiness actors to hear and interact together with the aim to acquire agricultural knowledge and experiences organized or led by agricultural officers or extension workers (Patterson, 2012). Studies have shown that seminars have helped agribusiness actors to be aware of vital aspect of agriculture which some of them may not be previously aware of. This may include credit facilities, incentives, fertilizers subsidies, and other farm inputs that may be available with the assistance of the Government to help the farmers (Ellis, 2005). Seminar is supposed to trigger intellectual capacity and enhance the ability of the agribusiness actors to improve on the level of their productivity. It is however unfortunate that the number of agricultural extension officers available for the conduct of agricultural seminars is inadequate. Some of them that are available before have migrated to other western countries in search of greener pasture while some are still warming up to move at any available opportunity (BASIC, 2006). The poor state of economy in most of the African nations has contributed immensely to brain drain in Africa (Diao et al, 2006).

Workshop: This is a form of initiative program where group of farmers can deliberate and work together for the purpose of sharing, and developing ideas about matters, activities or subjects that is based how to improve on the productivity of agribusiness. It is forum where farmers interact to solve practical problems facing agriculture through the use of acquire agricultural skills and knowledge. Workshop assists farmers in acquiring skills that will develop them especially in the area of technical-know-how (Alerus and Lazarus, 2021). Workshops are effective tools that are used by extension officers to educate group of farmers on new skills that can help to improve on their productivity (Reddy and Kumar 2020). Farmers attend workshop due to different reasons. The effectiveness of workshop depends on the interaction revolving among the facilitators, participants, content, and among the participants (CECHO, 2015).

Classroom/ lecture method: This is a method entails transmission of agricultural ideas or knowledge to large group of farmers at a time from an instructor usually an extension officer. A major feature of this method is that it can be used to pass message to large number of people at the same time which makes it cost effective. Aqipour (et al, 2018) is of the view that lecture method can be essential for acquiring information and for transfer of knowledge from numerous sources. It can also be used to clarify information that is complex (Matheson, 2008). However, this method of knowledge transfer does not embrace practical ways of solving problems and ensuring attitudinal changes (Khoshnodifar et al, 2020).

Online/ virtual initiative method: It is a virtual method whereby the facilitator and the participants may not be physically present with each other but can pass across agriculture knowledge to one another (Aromolaran et al, 2017). A major advantage of this method is that it helps to eliminate the distance barrier in disseminating agriculture knowledge from the trainers to their trainees. Voice note, video, pictures can all be used to pass messages across to the trainees and the

trainers can also respond not minding the distance or location. This method may not be easy to disseminate information to farmers in the rural areas where internet network is poor and where farmers do not have access to Android devices. Online initiative helps in providing textual information that has photo image about farm work with focus on mass stimulation on breeding of livestock animal and crop production techniques (Hwan-Soo and Seong-Whan, 2014). Farming stimulation coupled with game is an advance form of virtual or online means of teaching farmers on how to experience farming and livestock breeding. In addition to this, it is used to educate on how to grow crops, breed livestock, production of biomass, balance nutrients, gives estimate of economic impact to farmers (user). The discovery and the use of realistic users approach can help to facilitate the tendency or ability of farmers using it to get farming experiences that is realistic. The knowledge acquired through this approach can be shared by the farmers with other users of the farming stimulation game (Hwan-Soo and Seong-Whan, 2014).

Benefits of Trainingi in Agribusiness

Agribusiness has major role to play for the survival of human race. Agribusiness is a major source of food supply, raw materials for many industries and energy supply to power and sustain continued existence of man. Therefore, there is a need to ensure continued supply of food and other basic resources from agribusiness because of the human population that keeps increasing on daily basis. Training on agribusiness production is very essential to ensure sustainable food security and income generation as means of livelihood (Tambi, 2019). Training in agriculture is more needed by the rural dwellers as they are more engaged in farming than the urban centre that is more concern with other production rather than agriculture. The universal sustainability of agriculture and its production is anchored on effective training. The way agribusiness actors manage their business operations and the outcome they eventually get depends on the level of agricultural training and experiences they have acquired. There are many benefits that training has on agribusiness. According to Koira (2014) training plays key role in enhancing the agribusiness actors' skills in agricultural production. Training program that will bring about increase in productivity has to be designed and carefully applied to meet a particular need. Training on advance technology in agricultural production as well as knowledge about market situation is very essential in attaining increase in the level of productivity in agribusiness activities. Rotowa & Ayadi, (2020) are of the view that training helps in facilitating the capacity building of agribusiness actors to increase the level of their productivity than those who do not engage in training. There is a significant relationship between training of agribusiness actors and increase in the level of agricultural productivity.

Through training program agribusiness actors are able to acquire skills and knowledge that could help to improve on their performance. According to research carried out by Khairu (2011), his findings shows that training program conducted brought about positive impact on the efficiency of the trainees who are trained on livestock farming. About 90% of the participants are of the view that training improves their job performance level. Training of farmers helps to facilitate effectiveness in carrying out their farm operations without wasting of time. Acquisition of certain skills about agricultural operations may help in reducing the cost of carrying out some farm management operations or practices (Wang et al 2014).

Challenges Confronting Training Program for Agribusiness Production

Training of agribusiness actors has the potential to revolutionize agribusiness activities but it is hindered by some certain factors. Effectiveness of training could be hampered due to communication gap. Language barrier could serve as limitation between the trainer and the trainees. In a situation whereby rural dwellers could not understand effectively the means of communication being used for the training program by the extension worker, there will be limitation to the passage of agricultural knowledge the farmers are to receive (Mwamakimbula, 2014). Another challenge confronting the effectiveness of training program for farmer is lack of evaluation and monitoring of the implementation of the knowledge acquired. Training exercise should not stop at the venue of the training. In a situation whereby a farmer who adopts training skill makes mistake in the implementation and there is no follow up he or she will be discouraged. Therefore, there should be assessment of the level of compliance to the training principles through effective monitoring (Aromolaran et al, 2016).

Unfavorable weather conditions like excessive rainfall, drought, heavy sunshine etc and natural disaster such as flooding, outbreak of diseases etc can limit the success of an implemented innovation from a training program. It is a well known fact that the effects of climate change have more adverse effects on some regions of developing countries, and on the quality and quantity soil fertility. For countries located in the tropical zone, extreme heat and humidity leads to fast deterioration of soil quality and other natural resources *(*Gaiser, & Ewert, 2014).

Moreover, expenses are incurred as medical bills on livestock animals as of result of adverse weather on them. These may limit the impacted of the knowledge acquired through training (Patterson, 2012). There is a little or no influence humans have to control the adverse effects of unfavorable weather condition.

The success of training program is also affected by lack of market information. Lack of understanding of marketing intelligence is a serious issue that can result to investment failure (Stokes and Wilson, 2006). The rural dwellers engaged in agribusiness must have the knowledge of the market they are targeting and the products to meet such market (Shafeek 2009). It is inherently risky to keep producing farm products where there is no potential demand for them even if one has acquired the necessary training on the production of certain crops (Koira, 2014).

Knowledge about market situation or channel to sell their produce is very essential. The success of training program will be complete when the farmers can effectively carry out the

training skill they have acquired and being able to sell their produce to raise the level of their income generation capacity.

Method and Procedure

Agribusiness actors in the senatorial districts of Ondo state Nigeria constitutes the population of this study. Random sampling was used to draw participants to represent the whole population. The sample size involved 150 respondents which were randomly drawn from the entire population using Yamane's formula with Confidence Level of 95%, Margin of Error of 5% and Population Proportion of 50% and Population size of 240. This is essential to make the sample generalizable.
n=N/(1+N (e)² $n = \frac{240}{1+240\ (0.05)^2 = 150}$n=150
Questionnaire was used as a data collection instrument in gathering the quantitative data from the respondents needed for the research work which includes, agribusiness actors like farmers, supermarket owners and workers, and Agricultural students. Analysis of data was done through descriptive statistics.

The Research Questions

1) Does training of agribusiness actors have effects on the productivity growth of agribusiness?
2) What is the impact of training among the initiative programs that boost agribusiness productivity?

RESULT AND DISCUSSION

Effects of Training on the Productivity Growth of Agribusiness Actors

Report on this research question critically examines the relationship between training and agribusiness productivity. In examining the effects of training, 5 agribusiness variables were considered which include increased production, reduction in the cost of production, profit margin, increase in production efficiency and timeliness of operations. The results showed that there were different changes when spearman correlation tool was employed on each Variable. The statistical result findings show that there is both direct and inverse relationship between training and agribusiness activities. Agribusiness actors need to continue to be involved in training in order to attain increased production, reduced cost of production, greater profit margin and timeliness of their operations.

The two variables involved are training and agribusiness productivity growth. Training was the independent variable while agribusiness productivity growth was the dependent variable. The simple linear regression technique was used to establish the relationship between the variables. Simple linear regression is expressed as

$$Y = \alpha + \beta\chi$$

……eqn. 2

Where 'Y' is the outcome variable, 'α' is constant, 'β' is regression coefficient, 'χ' is the explanatory variable.

The findings from this study showed the combined effects of training on agribusiness and productivity growth using a single linear equation. Ordinal variables were transformed to continuous variable to achieve approximate normality to make them suitable for regression analysis. In Table 1, there was statistically significant relationship between training and increased production. Although correlation does not measure cause and effect, this direct relationship may imply that increasing the level of training might lead to an increased production, simply put, an improvement in training might be bring about increased production.

For instance, doubling (100%) the effort for training agribusiness actors might lead to 45.5% increase in production. The outcome of this research finding is tandem with the assertion of Alerus and Lazarus, (2021) that training program could help to improve or increase agribusiness products to meet consumers' satisfaction. This simply implies that increasing the level of training might lead to increased production.

Table 1: Correlation of Training by Increased Production

			Training	Increased Production
Spearman's rho	Training	Correlation Coefficient	1.000	.455**
		Sig. (2-tailed)	.	.000
		N	85	84
	Increased Production	Correlation Coefficient	.455**	1.000
		Sig. (2-tailed)	.000	.
		N	84	124

*. *Correlation is significant at the 0.01 level (2-tailed).*
Source: Field Survey, 2022

In Table 2 there was statistically significant relationship between training and cost production, rho =-.795, P < 0.01. This inverse correlation between the variables indicates that a unit increase in training might lead to a unit decrease in cost of production.

In other words, improvement in training might lead to reduction in cost of production. If interpreted correctly, 100% increase in training might contribute 79.5% reduction in the cost of production. In the same vein the research findings of Alerus and Lazarus, (2021) show that adequate training of

workers has the tendency of reducing the cost of production which eventually leads to greater productivity. Importantly, significant reduction in cost of production will boost productivity of agribusiness. It is, therefore, vital to focus on training agribusiness actors on how to reduce cost of production, and government policies should embrace training, because this study has discovered that training might lead to significant reduction in cost of production

Table 2: Correlation of Training by Cost of Production

			Training	Cost of Production
Spearman's rho	Training	Correlation Coefficient	1.000	-.795**
		Sig. (2-tailed)	.	.000
		N	85	85
	Cost of Production	Correlation Coefficient	-.795**	1.000
		Sig. (2-tailed)	.000	.
		N	85	113
**. *Correlation is significant at the 0.01 level (2-tailed).*				

Source: Field Survey, 2022

In Table 3, there was statistically significant strong relationship between training and profit margin, rho =.812, P < 0.05. This direct relation indicates that improvement in training might contributes significantly to increase in profit margin of agribusiness actors. If interpreted correctly, 100% improvement in training might contribute 81.2% improvement in profit margin. The finding of this study is in agreement with Koira's assertion (2014). According to the research findings of Koira (2014) training plays key role in enhancing the agribusiness actors' skills in agricultural production to increase their profit margin. This brings to focus the necessity of training in the productivity growth of agribusiness in the study areas. Training that involves various types of actors should be embraced, so that the productivity growth of agribusiness would be enhanced.

Table 3: Correlation of Training by Profit Margin

			Training	Profit Margin
Spearman's rho	Training	Correlation Coefficient	1.000	.812**
		Sig. (2-tailed)	.	.000
		N	85	85
	Profit Margin	Correlation Coefficient	.812**	1.000
		Sig. (2-tailed)	.000	.
		N	85	112
**. *Correlation is significant at the 0.01 level (2-tailed).*				

Source: Field Survey, 2022

The result in Table 4 shows that there was statistically significant relationship between training and production efficiency, rho =.580, P < 0.001 with mid effect. Doubling efforts of training might result to moderate improvement in efficient production. The fact remains that when agribusiness actors are being trained on the modalities of reducing waste in production, cost of production will be reduced, output will increase and profit margin will also increase. This invariably will increase the productivity growth of agribusiness. The result of this research corroborates the assertion of Khairu (2011). His findings show that training program conducted brought about positive impact on the efficiency of the trainees who are trained on livestock farming. It is therefore momentous to consider efficiency in production as bedrock for productivity growth.

Table 4: Correlation of Training by Production Efficiency

			Training	Production Efficiency
Spearman's rho	Training	Correlation Coefficient	1.000	.580**
		Sig. (2-tailed)	.	.000
		N	85	85
	Production Efficiency	Correlation Coefficient	.580**	1.000
		Sig. (2-tailed)	.000	.
		N	85	110
**. *Correlation is significant at the 0.01 level (2-tailed*				

Source: Field Survey, 2022

The result in Table 5 shows that there was statistically significant strong relationship between training and timeliness of operation, rho =.852, P < 0.001 if interpreted correctly, improvement in training might contribute significantly to timeliness of operation of agribusiness. This is not unconnected to the fact that reduction in cost of production, increased output and profit will ascertain the timeliness and longevity of operation. Agribusiness actors were ready to stay in business for longer years as far as productivity will continue to improve. Sustaining their business is a key aspect of their business planning. It is therefore, safe to say that agribusiness actors will embrace training and other opportunities that would guarantee sustained production and productivity growth.

Table 5: Correlation of Training by Timeliness Operation

			Training	Timeliness Operation
Spearman's rho	Training	Correlation Coefficient	1.000	.852**
		Sig. (2-tailed)	.	.000
		N	85	85
	Timeliness Operation	Correlation Coefficient	.852**	1.000
		Sig. (2-tailed)	.000	.
		N	85	98

**. *Correlation is significant at the 0.01 level (2-tailed).*
Source: Field Survey, 2022

Training has Significance Impact Among Initiative Programs Such as Workshops, Seminars Conferences to Boost Agribusiness Productivity.

The results in Table 6 show that there were 122 respondents who responded to the question, i.e., selected at least one of the five initiative type option. The vast majority of the respondents had participated in training (70.5% or 86 respondents). The vast majority of the respondents had participated in Seminars (45.9% or 56 people). Less than 30%of the respondents had enjoyed loan facilities (21.3% or 26 respondents). In addition, 12.3% of respondents said they had attended conferences, and only 4.2% of respondents had been involved in simulation. This finding reveals that majority of respondents had attended training to improve in income generation in agribusiness productivity in the study areas. In other words, training is the dominant initiative prevalent among the respondents. This finding is similar to the findings of Tambi (2019) with assertion that training is the most adopted initiatives program to boost productivity among agribusiness actors.

Table 6: Agribusiness income generation improvement Initiatives

		Multiple Responses		
		N	Percent	Percent of Cases
Initiatives for improvement in agribusiness productivity[ah]	Training	86	45.0%	70.5%
	Seminars	56	29.3%	45.9%
	Provision of loan facilities	26	13.6%	21.3%
	Conferences	15	7.9%	12.3%
	Stimulation	8	4.2%	6.6%
Total		191	100.0%	156.6%

Source: Field Survey, 2022

CONCLUSION

There is a need for continuous training and participating in other initiative programs to improve agribusiness production. The result findings from research study from the examination of relationship between training and agribusiness productivity variables shows positive effects more than other initiatives programs to improve agribusiness productivity. It is therefore recommended that there is a need for agribusiness actors to emphasize on the need for more training of themselves or their labor force to acquire more skills relevant to improve the level of their performance in terms of their agribusiness productivity. In addition to this, there is also a need to explore more by participating in other initiatives measures/ programs which may be in form of stimulation, workshops, seminars conferences, field trip and combine their effects for greater productivity. The results of this study implies further that government should provide a sustainable training program through the assistance of agricultural extension workers for the rural agribusiness actors to boost their productivity while the private sector that are involved in agribusiness should prioritize regular training for capacity building of their work force.

REFERENCES

Aleru P.D. and Lazarus S.T (2021) Role Of Agricultural Education Farm Workshop InDevelopment Of Students' Skills In Indigenous MechanizedTechnology For Self-Reliance In Rivers State British Journal of Contemporary EducationVolume 1, Issue 1, 2021 (pp.

Aqipour, M., Abbasi, E., Naeimi, A.,]Ganguly, S. and Zamani Miandashti, N 2016. An Investigation of Self-DirectedLearning Skills among the IranianAgricultural Students (Case of AgriculturalCollege, TarbiatModares University). J.Agr. Sci. Tech., 18:15-26.

Aromolaran A. K., Akerele D, Oyekunle O.,Sotola E. A. and Taiwo L. K. (2016.) Attitudes Of Farmers To Extension Trainings In Nigeria: Implications For Adoption Of Improved AgriculturalTechnologies In Ogun State Southwest Region. *Journal of Agricultural Sciences* Vol. 62, No. 4, 2017 Pages 423-443

BASIC (2006).*Building Africa Scientific and Institutional Capacity in Agriculture and Natural Resources*. An ANAFE Publication.

Bharthvajan R, S and Fabiyola Kavitha (2019). Impact of Training on Employee Productivity.

CECHO (2015). Effective use of Workshop in Agricultural Extension, ECHO Summary of MEASD Technical Note; Presenting Workshop to Adult.

Dorman price (2005) *Personnel Management* 6th Edition. Kogakusha Mcgrew Hill Incorporated book Company, New York.

Ellis, F. (2005).*Small Farms, Livelihood Diversification and Rural Urban Transition:Strategies Issues in Sub-Saharan Africa*. International Food Policy Research Institute: UK.

FAO (2009) The State of food in Security in the world Rome: United Nations Food and Agriculture Organization (FAO) Retrieved from ftp:/ftpfao.org/docrep/fao/012/i0876e.pdf

Hassen, H. (1993). Trainers" Guide (PP15-36); Principles and Methods of Learning. Food and Agriculture Organization of the United Nations, International Fund for Agricultural Development and World Food Program (FAO, IFAD and WFP, 2012). (2012). Agricultural cooperatives: paving the way for food security and rural development for Economics, Humanities and Social Science.

(Hwan-Soo and Seong-Whan, 2014). Virtual Farmers Training: Realistic Simulation with Amusementsusing Historic Simulation and Game Storyline.

Gaiser &Ewer, (2014) *Entrepreneurship programmes in developing countries*:A meta regression analysis. Labour Economics, 28, 110–130

Khoshnodifar Z. Abbasi E. Farhadian H. Sadighi H. and Pouratashi M. (2020) 891Comparative Comparison of Lecture and Team MemberTeaching Design Methods in Agricultural Higher EducationSystem of Iran .Agr. Sci. Tech. (2020) Vol. 22(4): 891-904

Kiraly, G., Vago, S., Bull, E., Cruyssen, L. Arbour, T. and Spanoghe, P. (2023): Information behaviour of farmers, foresters, and advisors in the context of digitalisation in the EU. Studies in Agricultural Economics, 125 (1), 1–12. https://doi.org/10.7896/j.2392

Koira A. K. (2014) Agribusiness in Sub-Saharan Africa: Pathways for developing innovative programs for youth and the rural poor.

Krugman, P(1994) Definningand Measuring Productivity. The Age of Diminishing Expectations.Table 4. 1: Cronbach Alpha Reliability Statistics.

Matheson, C. 2008. The Educational Valueand Effectiveness of Lectures. Clin. Teach.,5: 218–221.

Mwamakimbula, A. M. (2014). Assessment of the factors impacting agriculturalextension training programs in Tanzaniaermany

Patterson, S. (2012). *Many Makeup Artists Often Look to Take Short Training Courses, such as Seminar and Workshops*. Suzanne Paterson Center Publication: New Zealand.

Reddy,S.Y. and Kumar T.V. (2020) Training. An Effective Approach for Farmer's Development

Rotowa O. O. & Ayadi, P. A. (2020). Faecal sludge management in the residential cores of Akure, Nigeria. *Journal of Environment Protection and Sustainable Development, 6*(2), 32-47

Rutto S. K.(2016) Factors Influencing Involvement OfLegume Farmers In Agricultural TrainingPrograms In Makueni County, Kenya

Shafeek Sha 2009. Enhancing the Strategy for Developing Small Growth Potential Firms in the Eastern Cape.From<http://www.accademicjournals.org/AJBM>(Retrieved 22 September 2010).

Stemetz et al (1995). *Towards a knowledge-based theory of the firm*. Strategic management journal 17 (winter special issue) 108

Tambi M. D. (2019) Agricultural Training and Its Impact on Food Crop Production in Cameroon *Journal of Socioeconomics and Development*Vol 2, No 1, 1 – 11DOI: 10.31328/jsed.v2i1.740Widyagama

USAID. (2008). *Doing agribusiness. USAID Business Climate Legal and Institutional Reform.* Retrieved from http://bizclir.com/galleries/publications/agclir%20slick%20sheet.pdf

Wang, H.; Wang, X.; Sarkar, A.; Zhang, F. How capital endowment and ecological cognition affectenvironment-friendlytechnologyadoption: A case of apple farmers of Shandong province, China. Int. J. Environ. Res. Public Health 2021, 18, 7571.

Yang, S., Ishtiaq, M., & Anwar, M. (2018). Enterprise risk management practices and firm performance, the mediating role of competitive advantage and the moderating role of financial literacy. *Journal of Risk and Financial Management*, *11*(3), 35.