Archives of Business Research – Vol. 8, No. 8
Publication Date: August 25, 2020
DOI: 10.14738/abr.88.8398.
Victor, O., Olufemi, O., Ehirim, N. C., & Samson, A. (2020). Assessment of Smallholder Farmers' Perception on Extension Training Programs for Entrepreneurial Skills Development in Cross Rivers State. *Archives of Business Research, 8(8). 176-196.*

Assessment of Smallholder Farmers' Perception on Extension Training Programs for Entrepreneurial Skills Development in Cross Rivers State

Okpodu Victor
Department of Rural Development and Gender Issues,
Agriculture and Rural Management Training Institute
Ilorin, Kwara State, Nigeria

Dr. Oladunni Olufemi
Agriculture and Rural Management Training Institute,
ARMTI, Ilorin, Kwara State, Nigeria

Dr. Nnamdi Chukwuemeka Ehirim
Department of Agricultural Economics
Federal University of Technology Owerri,
Imo State, Nigeria

Awoyemi Samson
Department of Training Technology
Agriculture and Rural Management Training Institute,
Ilorin, Kwara State, Nigeria

ABSTRACT

The study of smallholder farmers' perception on extension training delivery for entrepreneurship skills in cross rivers state was done to assess their perceived factors of entrepreneurial development in the study area and to examine the relationship between extension training delivery on entrepreneurship skills and the effectiveness in linking farmers to the market. Data were collected using a two-stage random sampling of 114 small holder farmers registered with Agricultural Development Programme of the state and later analyzed using descriptive statistics; Pearson Product Moment Correlation Coefficient; and Factorial Analysis. Result reveal that the farmers are mostly male (63.2%) with a mean age of 46year. The Pearson Product Moment (PPM) Correlation Coefficient showed no significant relationship between some selected socioeconomic characteristics of the respondents and the perceived effectiveness of extension service delivery on entrepreneurship training. Meanwhile, marital status, years of formal education and farming experience were all significant at 95% level in terms of effective contribution of extension services to farmers' entrepreneurial skills. Again, it was shown in the factor analysis that three significant variable as contributing significantly to the predictive ability of the model. These are training improving

marketing skill (0.037), communication skill of the agent in training (0.025) and farm and home visit of extension agent (0.018). Based on the findings, the study recommended that extension services is an important source of socioeconomic change in promoting entrepreneurship skills need of the farmers in the study area.

Key words: Entrepreneurship, perception, farmers' and extension

INTRODUCTION

The concept of entrepreneurship has been a subject of deliberation for a very long time. Recently, it has resurged as if new discoveries are been made, more so, as it is now considered as one of the crucial determinants of economic growth and development. Garg (2016) defines it as a process of creating and innovating responses to the environment through setting up of a new business venture by an entrepreneur. As a process, entrepreneurship skill comprises of many qualities and traits such as imagination, risk-taking, ability to harness various factors of production i.e. land, labour, technology, e.t.c. Thus, it is apparent that entrepreneurial activities are beneficial in advancing developmental goals both at the micro and macro level.

In recent years, the federal government of Nigeria has recognized the need for a more entrepreneurial culture in farming as a business. More so, as the world is moving away from local, regional and national markets towards a global system of trading, it becomes imperative that the entrepreneurship skills development of farmers is a significant issue that requires urgent attention by all stakeholders such as the farmers associations, management development institutes and the advisory agencies. Meanwhile, over the years, the agricultural sector in Nigeria is characterized as a place that records thousands of tonnage of produce each year and still the rural communities that account for these high output are struggling and still lack economic opportunities. This is so because we live in a world that is rapidly changing, and what made sense to the consumers yesterday may not make sense today and might be irrelevant tomorrow. Therefore, today, the interest of policy makers lies in promoting entrepreneurship growth because of its immense contribution in creating value from monetary and non – monetary returns.

Adeyeye (2008) describes entrepreneurship as several activities carried out by an enterprise for effective operations. This description concludes that entrepreneurship involves the identification and exploitation of opportunities to innovate. In another development, Ahme (2011) viewed entrepreneurship as the process of creating or seizing opportunity and pursuing it regardless of the resources currently controlled. Supporting this view is the assertion by Akpa (2007) as reported by Unachukwu (2009) that an average entrepreneur is rugged and aggressive. Thus, in the face of slow growth of agriculture and growing poverty and unemployment in rural areas there is need to incorporate entrepreneurship culture into agriculture for more productivity and profitability in agriculture. Thus, the term agripreneurship turns a farm into an agribusiness. This new paradigm shift suggests that linking Production agriculture to agribusiness will require extension agencies playing a significant role in developing a culture of entrepreneurship farming among farmers to take on a more market focused approach, and at the same time, work in ways that strengthens the roles and opportunities of other actors along a given commodity food value chain.

Unachukwu (2009) views that entrepreneurship requires a culture that respects risk taking. Therefore, without the farmers' willingness to take risks it is almost impossible to create value from knowledge, and this can cause a barrier to promoting investments in agriculture. The extension agencies will provide necessary linkage between the management development institutes and farmers by resolving identified management problems and needs involved in agripreneurship with best management interventions that will improve their agribusiness practices. In view of this assertion, Campbell & Barker (1997) views that selecting an extension delivery or education method in a particular situation is based on its ability to give the right kind of information to the right people **at** the right time. Also, Young (1998) views that identifying the needs of farmers for knowledge and determining which delivery method to meet those educational needs is a challenge. Hence, despite the strong climate for agribusinesses to thrive and the profound benefits entrepreneurship farming has to offer in Nigeria, farmers are yet to appreciate it as they are faced with the challenges of linking their farm produce to the market.

This study evaluated the effectiveness of extension programmes by measuring how the learning outcomes provided by the extension personnel and their activities towards ensuring that farmers acquire the entrepreneurship skills needs in order to make their farming activities more competitive. Thus, the effectiveness of extension personnel in conducting its entrepreneurship advisory activities can be used to assess the success of extension programme. Agbarevo, (2013) viewed that if appropriate teaching is provided, it follows that learning or relatively permanent and positive change in behaviour of the farmer would take place. Misra (1997) concludes that such teaching/learning situations are effectiveness indicators. Hence, determining the level of extension effectiveness might require this study answering the following research questions:

i. What is the effectiveness of the entrepreneurship training received on the farm enterprises in the study area?
ii. What extension delivery method were adopted in equipping the farmers with entrepreneurship skills?
iii. What are farmers perceptions about the extension entrepreneurship skills and its training delivery method adopted?
iv. What motivates a farmer in developing his/her entrepreneurship skills in the study area?

The study is relevant to the private sector, government and Non-Governmental Organisations (NGO) in presenting the state agricultural extension as panacea for entrepreneurship skill development. Again, possible entrepreneurial problems faced by farmers had possible suggestions on how to alert agricultural related Management Development Institutes (MDI) for further training on the latest entrepreneurship skills for development.

Hence, the above questions were addressed through the following specific objectives:

i. identify the socio-cultural factors among smallholder farmers;
ii. examine what factor motivates entrepreneurship skills development of farmers in the study area; and
iii. determine the relationship between extension training delivery on entrepreneurship skills and its effectiveness in linking farmers to the market.

H_{01}: There is no significant relationship between some selected socioeconomic characteristics of the respondents and the perception of farmers on the effectiveness of extension service delivery on entrepreneurship training.

H_{02}: there is no significant relationship between extension entrepreneurship training delivery and its effectiveness on small scale farmers' entrepreneurial skills.

CONCEPTUAL AND THEORETICAL REVIEW

Christoplos (2010) and Umeh (2018) defined extension as "scheme that:

- Enable the access of farmer's organizations and other market actors to knowledge, information and technologies;
- Aid their communication with several stakeholders in research, agribusiness and other relevant institutions; and enhance them to develop their own technical, organizational and management skills and practices".

Therefore, the goal of agricultural extension bothers around strengthening the exchange of information and knowledge between farmers, community groups, research institutes and intermediary organisations (such as NGOs and government extension agencies) is germane for effective implementation of extension goal.

Overtime, studies have examined the possibilities of small scale farmers becoming entrepreneurs, *yes they can.* Farmers have always shown their remarkable ability to adapt and organise their farms to make a living. In making a living, De Wolf and Schoorlemmer (2007) applied the concept of 'entrepreneurship' to explain the phenomenon of value creation within new or existing businesses. Thus, entrepreneurship focuses its tasks and activities on starting, developing and continuing a profitable business thus, knowing an entrepreneur as someone who produces for the market. Kahan (2012) viewed that such a person is determined and creative in looking for opportunities to expand his market. According to Oluwasusi and Akanni (2014), for farmers to become entrepreneurs, ability to be more market oriented and knowledge of how to take calculated risk are essential for creating or opening new markets for their products.

This means that small scale farmers can become 'entrepreneurial' with assistance from extension workers and supporting institutions. This view supports the assertion of McElwee 2008; Pyysiäinen *et al.* (2006) that policy makers and researchers have recognised that besides sound management and craftsmanship, farmers and growers increasingly require entrepreneurship to be sustainable in the future. Hence, the application of entrepreneurship in agribusiness is concerned with finding ways and means to create and develop a profitable farm business; and the application of skills in entrepreneurship involves that the competencies required to accomplish tasks and activities related to farm business are developed by learning and experience. Fundamentally, entrepreneurs must possess certain skills that will help them to excel.

Conceptualizing Entrepreneurship Skills Training Effectiveness and the Relevance of Extension in Development

Sarker and Yoshihito(2009) hypothesised extension services as the best source of advancing information and training for farmers' participatory development, therefore, their sincerity is very important for effective extension services. Furthermore, we can conclude that frequent contact with the extension workers is also important for improving the effectiveness of the extension services, and through such contacts, farmers get more reliable information from the agents, and in return the extension services also become more credible with the farmers through back to back visit. Meanwhile, extension services is not concerned directly with generating entrepreneurship

knowledge as it is done in specialized Management Development Institutions (MDI) who are saddled with such responsibilities. In turn, extension takes this knowledge and makes it available to the farm family. To do this, extension agents have to be trained both in the different aspects of the extension process and entrepreneurship skills. It is at this point that entrepreneurial education becomes relevant to extension agents who are equipped through entrepreneurial training on how best to apply entrepreneurship skills in taking advantages of various business opportunities that abounds in their agro ecological zones.

In view of the above, the recommendation of Bennet (2006) as reported by Vesala and Pyysiäinen (2008), distinguished two approaches to entrepreneurship education as follows:

i. Skills training approach: This seeks to teach people on what it takes to manage a business on daily basis. It involves training such as sourcing for fund, staffing, legal requirement of the daily affairs of the business, elementary book keeping, understanding marketing problems, e.t.c.
ii. Attribute development approach: This concentrates on developing appropriate personal attributes as it relates to innovativeness, willingness to take calculated risk, persistence, creativity, determination and self-direction. Based on the aforementioned, Bennet (2006) concludes that since entrepreneurship is a part of a person's life experience, it follows that entrepreneurship education can enhance the aforementioned personal attributes of an entrepreneur.

However, various literature have concluded that the complex nature of entrepreneurial skill can be simplified using the theories of entrepreneurial learning which suggests that when learning is applied to the concept of entrepreneurship, it is concerned with learning how to recognize and act on opportunities, how to organize and manage ventures etc. Thus, it involves acquiring the functional 'knowing' and the actively 'doing', understanding "what works" and 'who' can do it. In essence, learning the entrepreneurial way involves knowing, acting and making sense.

Measuring the effectiveness of extension training on entrepreneurship skills training delivery should be a natural follow-up to ensure appropriate delivery of knowledge-based technologies and managerial skills to *agripreneurs* managers. In view of this assertion, Tripathi and ArtiBansa (2017) stated that in today's dynamic marketplace, the need for consistent skill up gradation never loses its importance. Furthermore, the previous idea of effective training program has changed. There is a need to continuously adapt the trending training program to suit our current needs. This is possible when we know how effective our previous training program was. Therefore, evaluation of training programmes requires an assessment of the various methods and techniques adopted for imparting training. Thus, it identifies weakness of the training programmes and so helps to accomplish closest possible correlation between the training and the farm enterprise.

Many approaches have been developed to measure Training Effectiveness Index (Dhiraj et. al., 2014). In ex post surveys, simple questions on effectiveness of trainings usually elicit positive responses which are in many instances unrealistic. Some results show that although trainings increase knowledge and skills of large number of farmers, but only few of them are ready to start new enterprise or diversify their farming system. These findings corroborate the findings of Dabas et al (2005) who observed that majority of farmers could not advance gained knowledge into actual practice. This emphasizes the need for a more aggressive training effectiveness measurement

mechanism combined with monitoring and evaluation (M&E) of productivity indices to ensure adequate return on investment for training. Assessing training effectiveness is a key prelude to M&E of the impact that could accrue to a set of activities based on the indicators, methods, tools, challenges and best practices that will help development practitioners measure the effectiveness of agricultural training.

Effectiveness may be measured through a range of approaches, both qualitative and quantitative methods designed to explore methods for assessing the short and medium term outcomes of agricultural trainings. Identified outcomes include:

1. Quality of training
2. Understanding of training content
3. Appropriateness of training content
4. Application and adoption of training content

Furthermore, various literature concludes that the complex nature of entrepreneurial skill can be simplified using the theories of entrepreneurial learning which suggests that when learning is applied to the concept of entrepreneurship, it is concerned with learning how to recognize and act on opportunities, how to organize and manage ventures e.t.c. Thus, it involves acquiring the functional 'knowing' and the actively 'doing', understanding "what works" and 'who' can do it. In essence, learning the entrepreneurial way involves knowing, acting, making sense. In view of this assertion, Cope (2005) as sighted in Mikko and Jarkko (2008) recommended that entrepreneurial learning can be approached by firstly, learning about oneself as it relates to understanding one's strength and weaknesses ; one's changing role within the business; identifying personal and family needs and objectives; areas of personal interest and motivation; areas for personal development.

Secondly, learning about the business: involves a SWOT analysis of the business, internal business needs; requirements for growth; areas for developments; understanding and facilitating employees; future directions. Thirdly, learning about the environment and the entrepreneurial networks, this involves learning about how to manage relationships with existing and potential customers, suppliers and competitors. Also about managing relationships with advisory and financial institutions. Fourthly, learning about small business managements which is learning on how to run and control the business effectively, including important procedures and systems such as human resource management and financial monitoring. Finally, learning about the nature and management of relationships, this considers both the exogenous and endogenous relationship of a firm.

METHODOLOGY

Study Area

This study was carried out in Akpabuyo LGA of Cross River State. It is situated between latitude 4° 5 and 5° 40 and longitude 8° 25 and 8° 32 East. It lies within the vegetation of a tropical rainforest belt. It shares the Atlantic coastline with Bakassi to the East and the Republic of Cameroon to the West.

Data Collection

In this study, primary source of data was used. For the primary source, the data gathering instruments included quantitative methods. The quantitative data were collected using structured interview and questionnaire administration procedure.

Sampling Method

A two-stage random sampling techniques was used in this study. The first stage involved a random selection of ten (10) communities from the list of community in Akpabuyo LGA, Cross river state. The second stage involves a random selection of twelve farmers from each of the ten communities previously selected in LGA using the list of the farmers who are in collaboration with the activities of the extension agents of ADP. A total of 120 farmers were selected for this study but the survey had incomplete questionnaires and this reduce the total number of respondents' sampled use to 114 in the analysis.

Method of Data Analysis

Data collected for this study were analyzed using:

i. Descriptive statistics such as mean, frequency and percentages.
ii. Pearson Product Moment Correlation Coefficient.
iii. Factorial Analysis

Pearson Product Moment Correlation Coefficient tested the measure of strength and direction of relationship that exist between the respondents' socio-economic characteristics and the perception of farmers on the effectiveness of extension training delivery on entrepreneurship.

$$PMCC(X,Y) = \frac{n\left(\sum_{i=1}^{n} X_i Y_i\right) - \left(\sum_{i=1}^{n} X_i\right)\left(\sum_{i=1}^{n} Y_i\right)}{\sqrt{\left[n\left(\sum_{i=1}^{n} X_i^2\right) - \left(\sum_{i=1}^{n} X_i\right)^2\right]\left[n\left(\sum_{i=1}^{n} Y_i^2\right) - \left(\sum_{i=1}^{n} Y_i\right)^2\right]}}$$

Where r = Pearson's correlation coefficient;
X = socio-economic characteristics of the respondents;
Y is their perception of farmers on the effectiveness of extension training delivery;
XY = the product of the two paired scores; and
n = number of observation of these variables.

Factorial Analysis

Factorial analysis procedure was adopted as a data reduction strategy in order to identify the factorable entrepreneurial skills of extensions and the training delivery methods adopted.

The factor analysis model as stated by Johnson and Wichern is:

$$Z_{1,i} = l_{1,1}F1,i + l_{1,2}F2,i + \ldots \varepsilon_{1,i}$$

$$Z_{2,i} = l_{2,1}F1,i + l_{2,2}F2,i \ldots + \varepsilon_{2,i}$$

$$Z_{p,i} = l_{p,}F1,i + l_{p,2}F2,i \ldots + \varepsilon_{1,i}$$

RESULTS AND DISCUSSION

Table 1 provides a descriptive analysis of socioeconomic characteristics of respondents in the study area. Ajzen (2006) as reported by Al-Rimawi and Tabieh (2016) assert that socioeconomic characteristics of respondents in an environment shows how attitude and behaviours guides an individual in taking decision as it relates to their farm enterprise. Hence, the socio-economic status considered in this study include age, sex, marital status, household size, educational status, types of farming activities carried out, duration of farming among others. In view of this, the distribution of farmers by age reveals that majority (50.9%) of the respondents were within the age bracket of 37-55years, followed by 41.2% of respondents being within the age bracket of 19-36years. The mean age of the respondents was 46years.

These two age brackets represent both the youth and the active age group that is productive and economically viable. Bruton (2008) asserts that this age brackets promote innovation, motivation and adaptability of individuals. Hence, this could play a vital role in enhancing the entrepreneurship skills of the farmers in agribusiness in the study area.

From Table 1, it can be seen that the marital status comprises of 78.11% of the respondents as married, while 16.6% are singles. Finally, 0.9% each reported that they are widows, widower and separated individuals. Thus, the married respondents constitute bulk of the labour force as family labour engaged in farming activities. The implication is that marriage institution is highly cherished in the environment and this could be attributed to the capability of married couples complimenting each other in meeting basic family needs such as food self-sufficiency. This finding agrees with the views of Oluwasusi and Akanni (2014) who asserted that married people constitute the bulk of the labour force that reduces production cost in farming activities.

In addition, a reasonable large household sizes of 62.3% comprises of 5-10 persons made up the majority of the respondents, followed by 34.2% that is <5persons. This indication shows that the study area comprises of large household sizes which might be actively engaged in farming activities. Also, the large household size could be attributed from the high percentage of farmers that are married as reported earlier. This is in agreement with the findings of Onubuogu and Onyeneke (2012) who asserted that large household sizes ensures availability of labour for farmers in addressing their labour challenges.

Respondents' distribution according to gender shows that 63.2% are males, while 36.8% are females. Although, both genders are involved in farming, but males have a greater proportion of dominance over females in the study area. This disagrees with the assertion of Oluwasusi and Akanni (2014) that females are dominant workforce directly involved in farming activities in Nigeria. However, the finding is in line with the assertion of Esiobu *et al* (2015) who reported male dominancy as a greater proportion engaged in farming activities. The reason being that, traditional rights to land acquisition like family lands and properties belongs solely to the males. Also, the drudgery nature involved in small scale farming could be responsible for male dominance in farming in the study area.

Table 1: Distribution of respondents according to their Socio economic characteristics (N=114)

Variables	Frequency	Percentage
Age		
19 – 36	47	41.2
37 - 55	58	50.9
56 and above	9	7.9
Sex		
Male	72	63.2
Female	42	36.8
Marital status		
Single	19	16.6
Married	89	78.1
Divorced	3	2.6
Widow	1	0.9
Widower	1	0.9
Separated	1	0.9
Household Size		
<5	39	34.2
5 – 10	71	62.3
> 10	4	3.5
Educational Status		
No Formal Education	23	20.2
Adult Education	7	6.1
Primary Education	25	21.9
Secondary Education	39	34.2
Tertiary Education	20	17.6
Farm Activities		
Food Crop	29	25.4
Tree Crop	4	3.5
Plantation	55	48.3
Horticulture	9	7.9
Livestock/Fishery	17	14.9
Duration of Farming		
<10Years	37	32.5
11 – 19Years	67	58.7
20 – 29 Years	7	6.2
> 30 Years	3	2.6
Total	**114**	**100.0**

Sources: Field Survey data, 2019

Normally, education widens the horizon of human operations and also provides an understanding of activities between human and its environment including farming activities. According to Table 1, majority of the respondents (34.2%) have acquired secondary school education and 21.9% stated that they had primary education. Also, 17.6% reported that the highest level of education qualification is tertiary education and 6.1% had adult education, whereas 20.2% of the respondents in the study area stated that they had no formal education.

This scenario implies that approximately 79.8% of the respondents have formal education which can as well be concluded that the population is literate, thus, affirming the findings of Esiobu *et al* (2015) who observed and reported that farmers with adequate educational background are more likely to adopt innovation and skills in entrepreneurship training. Furthermore, the socioeconomic result shows that the study area has a rich agricultural resource endowment with majority (48.3%)

of the respondents deriving their livelihood from plantation farming and 25.4% are into food crop farming. This analysis disagrees with the findings of Nzeh & Eboh (2011), who concluded that greater percentage of farmers practice crop farming as the major farming activities. Finally, the result shows that over 67.5% of the respondents had above ten years of farming experience. In view of this Anigbogu *et al* (2015) asserts that years of farming experience is expected to impact positively on agricultural production.

The null hypothesis that there is no significant relationship between some selected socioeconomic characteristics of the respondents and the perception of farmers on the effectiveness of extension service delivery on entrepreneurship training is presented in Table 2. The spearman rank correlation coefficient result shows that the relationship between some selected socioeconomic characteristics of the respondent and their perception on the effectiveness of extension service delivery on entrepreneurship training were measured based on:

Contribution of extension services to entrepreneurship skill

result shows that only three of the socioeconomic characteristics (marital status, education and years of experience) are significant at 95% level in terms of effective contribution of extension services to farmers' entrepreneurial skills, although, the value of relationship 0.199 (marital status), -0.250 (educational qualification) and 0.214 (years of experience) according to cohen (1988) are small relationships. Meanwhile, all other socioeconomic characteristics are also related but not statistically significant. Therefore in conclusion, this study accepts that there is no significant relationship between some selected socioeconomic characteristics of the respondents and the perception of farmers on the effective contribution of extension services to entrepreneurship skill. Furthermore, the positive relationship of marital status goes to show that as the respondents change their marital status, the effectiveness of the extension services in increasing the farmers' entrepreneurial skill increases by 0.199.

This positive changes could be attributed to the fact that every entrepreneurial training received by either a male or female respondent is been shared between spouses and decisions about their farm enterprise are jointly taken as couples. Though education increases access to useful information, however, the inverse relationship of -0.250 for education shows that with advancement in educational status of the respondent, the perception on the contribution of extension training to their entrepreneurial skills decreases. It possible that as farmers become more literate, thus it promotes a poor assessment of the level of entrepreneurial skills of the extension agents. Also, it implies that at higher level of academic education, farmers' become more cautious at taking risk and thus easily given up when faced with challenges in their farm enterprise not minding other possible ways to succeed. Supporting this view is the assertion of Omotesho *et al* (2015) who reported a negative relationship between farmers' educational level and accountability of agricultural extension services.

Furthermore, this result disagrees with the findings of Oluwasusi & Akanni (2014) who assert that farmers who possess some level of education and are more aware of extension services are likely to adopt innovations quickly, owing to their higher skills acquisition and understanding of the economic advantages offered by innovations, with less fear of risk. Hence, it is pertinent that these set of farmers will require the persuasion of extensions to bridge the gap between what has been acquired academically by them and what ought to be done entrepreneurially as farmers.

The positive relationship in years of experience shows that as the years of farming advances, the contribution of entrepreneurial training to the respondent skill increases by 0.214. This can be attributed to the fact that over the years respondents with several years of farming experience have developed overtime higher skills acquisition and understanding of the economic benefits offered by entrepreneurial innovations in farming. This findings agree with the result of Oluwasusi & Akanni (2014) who asserted that farmers with several years of experience in farming are more likely to adopt innovations quickly.

Experience changes in your Entrepreneurial skills

Table 2 shows no significance amongst the socioeconomic characteristics and the changes in their entrepreneurial skills since they have been trained. Therefore, we accept that there is no significant relationship.

Opinion about Extension training programmes on developing entrepreneurial skills

In this category, the aim was to examine the possible factors that motivated the opinion of the farmers' in perceiving the effectiveness of extension service delivery on entrepreneurship training. Table 2 reveals that marital status (i.e 0.267) and years of experience (i.e. 0.194) both have positive and statistically significant relationship, though at different alpha levels. While marital status is significant at 99%, years of experience is significant at 95%. Once again cohen (1988) assert that the values of relationship are actually small relationships. The effect of marital status suggests that majority of the farmers' are committed to family responsibilities as information are shared jointly between spouses and this affects positively their decision making process, level of experience and opinion about their perception on the effectiveness of extension services delivery on entrepreneurship training.

This assertion agrees with the findings of Esiobu, N.S *et al* (2015) who asserted that when there is adequate enabling environment for farmers' to share their experiences either learning or practical with good government and private sector support, entrepreneurship spirit will sprout out in the area while problem of food security and rural poverty would be addressed.

Table 2. Farmers Perception on the Effectiveness of Extension Service Delivery on Entrepreneurship Training

Socio-economic Characteristics	Perception of farmers on the effectiveness of extension services delivery on entrepreneurship training		
	Contribution of extension service to your skill	Experience changes in your Entrepreneurship	Opinion
Age	0.177 (0.067)	0.140 (0.156)	0.139 (0.162)
Marital Status	0.199 (0.039)*	0.099 (0.316)	0.267 (0.006)**
Sex	0.0.83 (0.392)	-0.163 (0.096)	0.085 (0.392)
Household Size	0.064 (0.518)	0.021 (0.836)	0.053 (0.600)
Educational Qualification	-0.250 (0.010)*	-0.079 (0.428)	-0.110 (0.278)
Main source of Income	0.030 (0.762)	0.171 (0.086)	-0.064 (0.525)
Kind of Farm	-0.022 (0.825)	0.092 (0.354)	0.034 (0.734)
Years of Experience	0.214 (0.026)*	-0.034 (0.730)	0.194 (0.050)*

The second null hypothesis that there is no significant relationship between extension entrepreneurship training delivery and its effectiveness on small scale farmers' entrepreneurial skills is performed in Table 3

The correlation matrix in Table 3 shows almost all variables have correlation more than 0.3. Meanwhile, Kaser – Meyer – Olkin measure of sampling adequacy (KMO) is 0.882 and the Bartlett's test is significant (ρ = 0.000). Therefore, factor analysis is appropriate.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.882
Bartlett's Test of Sphericity	**Approx. Chi-Square**	1574.795
	Df	351
	Sig.	.000

Determining the Components

To determine the number of factors to extract, we adopted Kaiser's criterion. Here, we are interested in components that have an eigen value of one or more. From the total variance explained on the Table **below** the following components recorded eigen values above 1 (12.612, 2.791, 1.680, 1.258, 1.054). These five components explained a total of 71.838% of the variance.

Table 4. Total Variance Explained

No.	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Variance	Cumulative	Total	Variance	Cumulative	Total	Variance	Cumulative
1	12.612	46.711	46.711	12.612	46.711	46.711	10.666	39.503	39.503
2	2.791	10.338	57.049	2.791	10.338	57.049	2.698	9.992	49.495
3	1.680	6.222	63.272	1.680	6.222	63.272	2.160	8.000	57.495
4	1.258	4.661	67.933	1.258	4.661	67.933	2.153	7.975	65.469
5	1.054	3.905	71.838	1.054	3.905	71.838	1.719	6.368	71.838
6	.869	3.219	75.057						
7	.841	3.114	78.172						
8	.731	2.709	80.881						
9	.563	2.084	82.965						
10	.521	1.930	84.895						
11	.466	1.726	86.622						
12	.434	1.606	88.228						
13	.401	1.484	89.712						
14	.366	1.355	91.067						
15	.358	1.327	92.394						
16	.301	1.115	93.510						
17	.269	.997	94.507						
18	.238	.881	95.388						
19	.225	.835	96.223						
20	.182	.673	96.896						
21	.178	.661	97.557						
22	.176	.652	98.209						
23	.132	.490	98.699						
24	.120	.443	99.142						
25	.096	.355	99.496						
26	.081	.298	99.795						
27	.055	.205	100.000						

Also, looking at the scree plot, observation shows that the elbow bending starts immediately after point 2, which means only 2 components are explained or capture more of the variance than the remaining one. Considering the procedure of parallel analysis.

The decision of parallel analysis supports the decision from the scree plot to retain only two factors for further investigation.

Table 5.

Component No.	Actual EIGEN value from PCA	Criterion Value from Parallel Analysis	Decision
1	12.612	2.0308	Accept
2	2.791	1.8528	Accept
3	1.680	1.7294	Reject
4	1.258	1.6266	Reject
5	1.054	1.5438	Reject
6	0.869	1.4487	Reject
7	0.841	1.3767	Reject
8	0.731	1.2012	Reject
9	0.563	1.2275	Reject
10	0.521	1.1620	Reject
11	0.466	1.1030	Reject
12	0.434	1.0405	Reject

Factor Rotation

From the varimax rotation, Total variance explained on the table now show only two components and the variance explained has also been adjusted after rotation. Component now explains 43.93 percent and component 2 explains 10.27 percent.

The total variance explained is 64.2 percent.

In the rotated component matrix you will see the loading of each of the variables on the two factors that were selected. The highest loading on components 1 are some items on (0.840, 0.838, 0.833, 0.829, 0.821) learning objectives. The main items on component 2 (0.719, 0.705, 0.686, 0.509, 0.504) comprises of some factors in individual and mass contact contributed to make up the loadings.

LOGISTICS REGRESSION

Factors that loaded (Component 1)

i. Training improved marketing skills
ii. Rating performance of farm enterprise after training
iii. Rating training in respect to present management skills
iv. Communication skill of the agent in training delivery

Factors that loaded (Component 2):

i. Personal letter
ii. Visit to extension office
iii. Farm and home visit of extension agent
iv. Newspaper
v. Publications

The dependent variable represents the opinion of the respondent about the extension trainings on developing their entrepreneurial skills (recoded). While the factors that loaded in the varimax are the independent variables.

Table 6. Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step1	Step	19.926	10	.030
	Block	19.926	10	.030
	Model	19.926	10	.030

The Omnibus Test of Model coefficients gives us an overall indication of how well the model performed over and above the results obtained for Block O, with none of the predictors entered into the model. In this case the value ρ = 0.0500 (which really means ρ <0.05). Therefore, the model is better than the guess carried out by SPSS in Block O and the Chi – Square value is 19.92 with 10 degree of freedom. This is also supported by Hosmer Lemeshow test as a worthwhile model, since the significance value 0.855 > 0.05.

Table 7. Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	23.154[a]	.213	.527
a. Estimation terminated at iteration number 9 because parameter estimates changed by less than .001.			

Model Summary Table

The table gives us information about the usefulness of the model. The Cox & Snell 'R' square values provide an indication of the amount of variation in the dependent variable explained by the model. It can be seen that the two values are 0.213 and 52.7 percent of the variability is explained by this set of variables.

Classification Table

This provides us with an indication of how well the model is able to predict the correct category (Training not effective/Training is effective). This will be compared with the classification table shown for Block 'O' to see how much improvement there is when the predictor variables are included in the model. The model correctly classified 94.0 percent of PAC (Percentage Accuracy in Classification) an improvement over the 92.8 percent in Block 'O'.

Table 8. Classification Table[a]

Observed	Predicted		
	Respondents opinion recoded		Percentage Correct
	No, Extension training is not effective	Yes, Extension training is effective	

Step 1	Respondents opinion recoded	No, Extension training is not effective	2	4	33.3
		Yes, Extension training is effective	1	76	98.7
	Overall Percentage				94.0
a. The cut value is .500					

Variables in the Equation Table

This provides an information about the contribution or importance of each of our predictor variables. The test that is used here is Wald Test.

Looking at the sig value we have three significant variable that contribute significantly to the predictive ability of the model. These are training improved marketing skill (0.037), communication skill of the agent in training (0.025) and farm and home visit of extension agent (0.018) and these are the factors influencing whether a person report that extension agent training are effective and making necessary impact. The B values on the table is an indication of the relationship.

Table 9: Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	EXTTRAIN	2.064	1.521	1.841	1	.175	7.874	.400	155.085
	TRGIMPROV	1.236	1.228	1.014	1	.314	3.443	.310	38.192
	RATE	2.303	1.550	2.208	1	.037	10.001	.480	208.549
	RATETRG	-3.036	2.200	1.904	1	.168	.048	.001	3.582
	COMMSKL	.441	1.254	.124	1	.025	1.554	.133	18.163
	PERSLETA	-.115	1.037	.012	1	.912	.891	.117	6.802
	EXTESNFICE	4.183	2.163	3.738	1	.053	65.531	.944	4549.257
	RATHMAGENTS	-2.628	1.967	1.785	1	.018	.072	.002	3.413
	NPAPER	-.122	1.294	.009	1	.925	.885	.070	11.179
	PUBLCTNS	-1.252	1.135	1.218	1	.270	.286	.031	2.642
	Constant	-2.202	3.143	.491	1	.484	.111		
a. Variable(s) entered on step 1: EXTTRAIN, TRGIMPROV, RATE, RATETRG, COMMSKL, PERSLETA, EXTESNFICE, RATHMAGENTS, NPAPER, PUBLCTNS.									

It could be deduced from the result above that there is a positive relationships between the training delivered by the extension agents and the level of marketing skills acquired by the respondents. I.e. for every entrepreneurship training received, opinion response shows an increment of 0.037 in marketing skills of the respondents. This significant contribution of extension entrepreneurship training towards improving the marketing skills of the farmers, shows the extent in which extension services has been able to integrate current agricultural practices of farming in the environment with enterprise training. Also, we can assume the possible fact that the training took into consideration the existing local skills of the farmers and then fused them with entrepreneurial practices to enhance farmers' skills at taking advantage of agricultural opportunities in their environment to manage and market their farm produce more effectively for the market.

Furthermore, the active and economically viable age group of the respondents, combined with their high level of literacy could also be contributing factors enhancing the adoption of innovation and skills in entrepreneurship training in promoting marketing skills of the respondents. This findings agrees with the assertion of Teklehaimanot *et al* (2017) who stated that the capacity to create value for customers depends on market knowledge, meanwhile, the development of market knowledge in turn depends on the level of training.

Analysis showed a positive correlation in communication skills of the extension agent involved in training. Observation shows that for every training received, respondents opined that the communication skills of the extension agents increased their level of understanding by 0.025. This positive impact can be attributed to the extension agents' relationships with the respondents and the understanding of their current situation combined with market information to aid entrepreneurship trainings based on market needs. This is because, effective market information help increases agricultural markets efficiency and also overcome market failures that are based on weak and asymmetric access to information. Thus, for communicative interaction skills, only extension teaching methods of farm and home visit were desired by the respondents.

The implication is that as the extension agents are likely to reach clientele of different socio-economic groups they may desire the best methods of teaching that forms appropriate methods for different categories of farmers' e.g. different age brackets, scale of farming, educational status and individual situation of farmers. Based on this findings, Okoedo-Okojie and Edobor (2013) concludes that irrespective of individual characteristics, respondents are conscious of communication skills of the agents.

CONCLUSSION AND RECOMMENDATION

Based on the findings from farmers' perception on the effectiveness of extension training delivery in promoting entrepreneurship skills among small scale farmers, it can be concluded that extension services is an important source of socioeconomic change in promoting entrepreneurship skills need of the farmers. The study viewed both extension services contribution to farmers' entrepreneurship skills and farmers' opinion about training programmes in developing their entrepreneurial skills, and thus reveal that married farmers who constituted bulk of the respondents in the study area were positively impacted by extension services contribution to their entrepreneurship skills. Also, most farmers with over ten years of farming experience recorded positive impact due to their acquisition overtime, higher skills and understanding of socio-economic benefits offered by entrepreneurial innovation in farming. However, it is possible that as the farmers become literate and more aware of extension entrepreneurship training, study showed a lesser likelihood of the farmers adopting the entrepreneurship skills training quickly as they can be said to be cautious at taking risk.

In addition, the study showed that both marital status and years of farming experience as factors that motivated farmers' opinion about their perception on the effectiveness of extension service delivery on entrepreneurship training. Meanwhile, further subjection of the study to analysis, revealed that certain factors from the entrepreneurship training also motivated farmers' opinion and contribution of extension services to enhancing farmers' entrepreneurship skills in the study area. The study revealed that communication skills adopted by the extension agents during training recognised the local needs of the farmers in improving the marketing skills of the farmers

at the end of the training. And this was made possible through the adoption of the farm and home visits as an extension method adopted.

In view of the above conclusions of this study, the following recommendations are made:

i. It is imperative that government commences training on agripreneurship training for youth in the study area.
ii. The percentage of females into farming should not be neglected as there is need for extensions in the study area to also focus agripreneurship training with a gender perspective for females.
iii. The need for subsequent entrepreneurship training in farming to also include risk management in agribusiness.
iv. Farmers in the study area to be encouraged to diversify into agri–silvo pastoral farming. This involves the practice of farming tree, crop farming, pasture and animal husbandry in the study area.
v. Extension training to promote other entrepreneurship skills in management, networking, e.t.c.

Acknowledgements

The project was supported and made possible by the Executive Director of the Agricultural and Rural Management Training Institute - Dr. Oladunni Olufemi. Also, gratitude goes to Prof. Oyedipe. E.O for the wonderful mentorship provided while working under him during his assignment for the Institute.

The authors would like to thank the ADP field Extension staff attached to Akpabuyo Local Government Area, Cross River state, Nigeria for the assistance in organizing interviews with the farmers. In addition, I am indeed very grateful to my wife Okpodu Ekemena Ununotovo for the encouragement given to me in seeing through this publication and others that has been carried out by me.

References

Adaku B. and C. Ezeibe (2017). Analysis of Entrepreneurship Development in Agriculture among Female Groundnut Farmers in Enugu State. European Journal of Business and Management. ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.9, No.32, 2017

Adeyeye.M.M. (2008). Fundamental Approach to Entrepreneurship: Small and Meduim Scale Enterprises. Evi-Coleman publication. First Edition. ISBN 978-2206-89-X

Agbarevo, Machiadikwe N. Benjamin (2013).Farmers' Perception of Effectiveness of Agricultural Extension Delivery in Cross-River State, Nigeria.IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS), Vol. 2, No. 6, PP 01-07 www.iosrjournals.org

Ahmad Al-Rimawi et al (2016). Assessing Growers' Perceptions of Effective Extension Methods and Information Communication Technologies for Training Vegetable Growers in Jordan. www.ccsenet.org/ijef International Journal of Economics and Finance Vol. 8, No. 8; 2016.

Akpalu DA (2013). Agriculture extension service delivery in a semi-arid rural area in south africa: the case study of thorndale in the limpopo province. African Journal of Food, Agriculture, Nutrition and Development. (ajfand). Published by African Scholarly Science Communication Trust. ISSN 1684 5374.

Anigbogu Theresa Ukamaka, Agbasi Obianuju Emmanuela, Ikechukwu Moses Okoli. (2015). Socioeconomic Factors Influencing Agricultural Production among Cooperative Farmers in Anambra State, Nigeria. International Journal of Academic Research in Economics and Management Sciences 2015, Vol. 4, No. 3 ISSN: 2226-3624

Apantaku S.O; Aromolaran A. K; Shobowale, A. A; Sijuwola, K. O. Farmers and Extension Personnel View of Constraints to Effective Agricultural Extension Services Delivery in Oyo State, Nigeria; http://dx.doi.org/10.4314/jae.v20i2.15; Journal of Agricultural Extension, ISSN(e): 24086851; ISSN(Print); 1119944X; http://journal.aesonnigeria.org; http://www.ajol.info/index.php/jae; Email:editorinchief@aesonnigeria.org

Bennett, Roger., (2006). Business lecturers' perceptions of the nature of entrepreneurship. International Journal of Entrepreneurial Behaviour and Research, Vol 12(3): 165-188.

Bruton, G.D., D. Ahlstrom and K. Obloj (2008). Entrepreneurship in emerging economies: where are we today and where the research should go in the future? Entrepreneurship: Theory and Practice, 32(1), 1-14

Campbell, D., & Barker, St. C. (1997). Selecting appropriate content and methods in program delivery. In B. Swanson, R. Bentz, & A. Sofranko (Eds.), Improving agricultural extension: A reference manual. FAO, Rome

Christine Rudmann. (2008) Developing entrepreneurial skills of farmers (ESoF). Developing Entrepreneurial Skills of Farmers. Research Institute of Organic Agriculture FiBL, Ackerstrasse, CH-5070 Frick, Tel +41628657-272, Fax +41628657-273, E-mail info.suisse@fibl.org, Internet www.fibl.org ISBN 978-3-03736-028-6

Cope, J. (2005). Toward a dynamic learning perspective of entrepreneurship. Entrepreneurship Theory and Practice ET&P, 29(4), 373-397.

Dabas, Y.P.S., Kumar, A., Mustafa, S. And Bardhan, D. (2005), Impact Assessment of Training on Improved Dairy Husbandry Practices on Rural Women of Tarai area of Uttaranchal, Impact Assessment Studies- Agricultural and Rural Development Programmes, Indian Society of Extension Education, New Delhi, pp. 295-298.

David Kahan (2012). Entrepreneurship in Farming. Food and Agriculture Organization of The United Nations, Rome. www.fao.or/publications ISBN 978-92-5-107547-0 (print); E-ISBN 978-92-5-107548-7 (PDF)

De Wolf, P., McElwee, G. and Schoorlemmer, H. (2007) 'The European farm entrepreneur: a comparative perspective', Int. J. Entrepreneurship and Small Business, Vol. 4, No. 6, pp.679–692.

Esiobu, N. S, Onubuogu. G.C., and G.O. Ibe, (2015). Analysis of Entrepreneurship Development in Agriculture among Arable Crop Farmers in Imo State, Nigeria. International Journal of African and Asian Studies ISSN 2409-6938 AnInternational Peer-reviewed Journal Vol.7. https://www.researchgate.net/publication/272351994.

Garg. M. C (2016). Entrepreneur and entrepreneurship. http://www.ddegjust.ac.in/studymaterial/mba/cp-401.pdf

Gerard McElwee (2005). Developing entrepreneurial skills of farmers. SSPE-CT-2005-006500. D2: A Literature review of entrepreneurship in agriculture

Jarkko Pyysiäinen, Gerard McElwee, Alistair R Anderson, Kari Vesala (2006). Developing The Entrepreneurial Skills Of Farmers; Some Myths Explored. https://www.researchgate.net/publication/43294366. International Journal of Entrepreneurial Behaviour & Research. DOI: 10.1108/13552550610644463 · Source: OAI

Jasmin Arif Shah, Azizan Asmuni and Azahari Ismail (2013). Roles of Extension Agents Towards Agricultural Practice in Malaysia. International Journal on Advanced Science Engineering Information RTechnology. Vol.3 (2013) No. 1. ISSN: 2088-5334

Justina Ahme (2011). Economics of Entrepreneurship. Ecumenical Publishers. The centre for Economic and Policy Reaearch: 12B Udom D/line, Port Harcourt, P.O.Box 4565, Trans Amadi, Port Harcourt, Rivers State, Nigeria. ISBN: 978 – 978 – 916- -200 – 0

Kemi Funmilayo Omotesho; Isreal Ogunlade; Opeyemi Eyitayo Ayinde (2015).Analysis of Farmers Perception of the Accountability of Agricultural ExtensionServices in Oyo State, Nigeria. Article · June 2015. DOI:10.17582/journal.sja/2015/31.2.94.100. See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/281469012

McElwee, G. (2008). A taxonomy of entrepreneurial farmers, Int. J. Entrepreneurship and Small Business, Vol. 6, No. 3, pp.465–478.

Mcharo Anna Charles (2013). Perception Of Farmers On Effectiveness of Agricultural Extension Agents in Knowledge Transfer To Maize Growers in Kilindi District. http://www.suaire.suanet.ac.tz:8080/xmlui/bitstream/handle/123456789/579/ANNA%20CHARLES%20MCHARO.pdf?sequence=1&isAllowed=y

Md. Asaduzzaman Sarker and Yoshihito Itohara (2009). Farmers' Perception about the Extension Services and Extension Workers: The Case of Organic Agriculture Extension Program by PROSHIKA. American Journal of Agricultural and Biological Sciences 4 (4): 332-337, 2009 ISSN 1557-4989.

Mebrahtu L. Teklehaimanot, Paul T. M. Ingenbleek and Hans C. M. van Trijp (2017). The Transformation of African Smallholders into Customer Value Creating Businesses: A Conceptual Framework. JOURNAL OF AFRICAN BUSINESS, 2017VOL. 18, NO. 3, 299–319https://doi.org/10.1080/15228916.2017.1297628

Misra, D.C.,1997. Monitoring extension programmes and resources in B.E. Swanson R.P. Bentz, A.J. Sofranko (eds.), Improving Agricultural Extension. A Reference Manual (2nd ed.), pp. 151-160

Mmbengwa, V.M., M. Gundidza; J.A. Groenewald; & H.D. Van Schalkwyk. (2009). Factors Affecting Extension Workers in Their Rendering of Effective Service to Pre and Post-Settled Farmers in Government Initiated and Supported Farming Small, Micro And Medium Enterprises. S.Afr. Tydskr. Landbouvoorl./S. Afr. J. Agric. Ext., Mmbengwa, Gundidza Vol. 38, 2009: 1 – 14 Groenewald & van Schalkwyk. ISSN 0301-603X (Copyright)

Norsida Binti Man, Jasim Mohammed Saleh, Salim Hassan, Falah Hasan Zidane, Nolila Moha. Nawi and Sulaiman Umar (2016). Training Needs of Agricultural Extension Agents Using Borich Needs Assessment Model. Asian Journal of Agricultural Extension, Economics & Sociology. 13(1): 1-19, 2016; Article no.AJAEES.28892. ISSN: 2320-7027 SCIENCE DOMAIN international. www.sciencedomain.org

Nzeh, E. C. and O.R. Eboh (2011). Study of Technological and Farming Systems Adaptation to Climate Change in Farming Communities of Enugu State, Nigeria. Published by the African Technology Policy Studies Network. P O Box 10081, 00100 GPO Nairobi Kenya ISBN: 978-9966-1552-8-3

Okoedo-Okojie D.U.and Edobor. E. W. (2013). Identification of Communcation Needs of Extension Agents in Ondo State Nigeria. IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS) e-ISSN: 2319-2380, p-ISSN: 2319-2372. Volume 4, Issue 1 (Jul. - Aug. 2013), PP 01-06 www.iosrjournals.org

Oluwasusi. J. O & Akanni. Y. O. (2014) Effectiveness of Extension Services Among Food Crop Farers in Ekiti State, Nigeria, Journal of Agricultural & Food Information, 15:4, 324-341,DOI: https://www.researchgate.net/publication/267627662

Omotesho, K. F., I. Ogunlade and O. E. Ayinde. 2015. Analysis of farmers' perception of the accountability of agricultural extension services in Oyo State, Nigeria. Sarhad Journal of Agriculture, 31(2): 94-100.

Onubuogu, GC and RU Onyeneke (2012). Market Orientation of Root and Tuber Crops Production in Imo State, Nigeria, Agricultural Science Research Journals Vol. 2(5); pp. 206-216

Singh Dhiraj K. and Singh Premlata, (2014). Study of Effective Implementation Of Agricultural Technology Management Agency through Case Studies in Bihar.International Journal of Agriculture,Environment and Biotechnology,Vol 7., No1:173-178.

Stevens, J. B. (2009). Is Agricultural Extension Positioned To Promote Agripreneurship In South Africa?S. Afr. J. Agric. Ext., Stevens Vol. 45, No. 2, 2017: 86 – 94 DOI: http://dx.doi.org/10.17159/2413-3221/2017/v45n1a437 (Copyright)

Suriani Hassan, Norlita Ismail, Wan Yonsharlinawati Wan Jaafar, Khadizah Ghazali, Kamsia Budin, Darmesah Gabda and Asmar Shahira Abdul Samad (2012). Using Factor Analysis on Survey Study of Factors Affecting Students' Learning Styles, International Journal of Applied Mathematics and Informatics. https://www.researchgate.net/publication/257066716

Tripathi J.P. and ArtiBansal. A Literature Review on Various Models for Evaluating Training Programs. IOSR Journal of Business and Management (IOSR-JBM), vol. 19, no. 11, 2017, pp. 14-22.www.iosrjournals.org

Tripathi, J.P. (2017).A Literature Review on Various Models for Evaluating Training Programs||. IOSR Journal of Business and Management (IOSR-JBM), vol. 19, no. 11, pp. 14-22.

Umeh, J.C., 1990. An econometric choice for extension-teaching methods: the Borin and Oyo North Agricultural Development Projects' experience. Agric. Econ., 4: 229-238.

Umeh, O.J. (2018).Assessment of influence of extension teaching methods on the level of adoption of agricultural innovation in Akwa-Ibom State, Nigeria. International Journal of Advanced Research in Botany Volume 4, Issue 1, 2018, PP 1-6 ISSN No. (Online) 2455-4316 DOI: http://dx.doi.org/10.20431/2455-4316.0401001 www.arcjournals.org

Unachukwu, Glad O. (2009). Issues and Challenges in the Development of Entrepreneurship Education in Nigeria. An International Multi-Disciplinary Journal, Ethiopia. Vol. 3 (5), October, 2009. Pp. 213-226. ISSN 1994-9057 (Print) ISSN 2070-0083 (Online).

Vesala, K. M., & Pyysiäinen, J. (2008). Understanding entrepreneurial skills in the farm context. In E. B. C. R. (Ed.), Entrepreneurial skills and their role in enhancing the relative independence of farmers: results and recommendations from the Research Project Developing Entrepreneurial Skills of Farmers (pp. 28-41). Frick: Research Institute of Organic Agriculture.

Vesala,K.M., and Pyysiäinen, J. (2008).Understanding entrepreneurial skills in the farm context. In E. B. C. R. (Ed.), Entrepreneurial skills and their role in enhancing the relative independence of farmers: results and recommendations from the Research Project Developi:g Entrepreneurial Skills of Farmers (pp. 33). Frick: Research Institute of Organic Agriculture.

Young, N. C. R. (1998). Determining Needs of Farmers for Management Knowledge. Journal of Extension, Vol.36, No 3,

Zainalabidin Mohamed, Golnaz Rezai and Mad Nasir Shamsud. (2011). The Effectiveness of Entrepreneurship Extension Education among the FOA Members in Malaysia. Current Research Journal of Social Sciences 3(1): 17-21, 2011 ISSN: 2041-3246 Maxwell Scientific Organization, 2011