Vol.1, Issue 1, June, 2014



# KADUNA BUSINESS AND MANAGEMENT REVIEW

Published By: Department of Business Administration

Kaduna State University, Kaduna - Natural SSN 2384 7468

### TABLE OF CONTENTS

4 70 00		
V D.I	11 11	LIC
ART	11	10.0

1.	Impact of Small and Medium Scale Enterprises Operation and Development in Kwara State, Nigeria.  BABATUNDE, MICHAEL OYEWALE	1
2. :	Marketing Channel for Urban Farmers and Food security in Ilorin Nigeria.  GBADEYAN, ROTIMI AYODELE, KADIRI, ISMAILA BOLARINWA AND MUSTAPHA, YUSUF ISMAILA	17
3.	Analysis of Opportunities Presented by Electronic Marketing in Nigeria.  ABUBAKAR, HADIZA SAIDU AND MUHAMMAD, RAHILAHTU AHMAD	37
4.	Effect of Liquidity Management on Corporate Profitability  ABDU, MARYAM	53
5.	Communication and Persuasion Effect of Celebrity Endorsement on Consumers' Demand Decision in Nigeria  SAHEED, ZAKAREE S. & ILLUNO, E.C.	73
6.	Investment Performance Analysis of Selected Pension Fund Administrators: Empirical Evidence From Nigeria SAMBO, HALIMAH SANI	93
7.	Challenges of Poverty Reduction in Nigeria: Experience from Ayerose Community in Obafemi-Owode Local Government Area of Ogun State.  PIUS OTU ABANG AND ABBAS BASHARI AMINU	105
8.	Effect of Performance Appraisal on Organizational Performance of Firms in Nigeria  MALACHY O.D. Y AND CHECHET, ISHAYA L.	119
9.	An Examination of the Impact of Interest Rate on the Patronage of Saving Account Customers in Nigerian Banks ACHIE SAMUEL T.	135
10.	Impact of Perceived Motivational Factors on Women Entrepreneurs in Nigeria: Assessment in Kaduna State ANDOW, AFANG HELEN AND MUHAMMAD, RAHILAHTU AHMAD	147

### MARKETING CHANNEL FOR URBAN FARMERS AND FOOD SECURITY IN ILORIN NIGERIA.

# GBADEYAN, ROTIMI AYODELE, KADIRI, ISMAILA BOLARINWA. AND MUSTAPHA, YUSUF ISMAILA

Email: drgbadeyan@hotmail.com

#### **ABSTRACT**

The rapid urbanisation in most developing countries has brought along its attendance problems such as slum, unemployment, increased poverty and food insecurity. There are more people living in urban cities, making food security issue becoming a source of concern.

This development therefore, called for the need to produce more food for this growing population of urban dwellers, not only through farming in the rural areas but also in urban cities. The food distribution to urban cities, most especially in Ilorin in recent time has been grossly inadequate due to poor road network and high cost of transportation from the rural areas. This consequently leads to the problem of chosen the most cost effective marketing channel for this agricultural products. The objective of this paper is to determine the effect of marketing channel on distribution of food to the urban residents in Ilorin, Nigeria. The data was obtained through survey method using basically primary data in form of questionnaire and secondary data for the relevant part of the study. The simple random method sampling technique was employed for the selection of respondents. The statistical techniques employed are Pearson Correlation and Analysis of Variance. The findings revealed that marketing channel has significant effect on food distribution, because adequate food distribution is necessary for food security to be achieved. Also, there is positive correlation (r = 0.484) between farming experience and agricultural production by the urban farmers. The study recommends that Institutional barriers to land use should be removed and urban farmers should be encouraged to form association which would assists them have more access to funds and training. There is great potential in encouraging Urban Agriculture apart from increase food production, it also offer many benefits which lead to improve quality of life and well being.

Key Words: Urban Agriculture, Food security, Direct Marketing, ANOVA, Poverty, Hunger.

#### INTRODUCTION

The increasing concern for food securities in most countries as a result of growing number of the poor, has called for the need to produce more food. This phenomenon has resulted in focusing attention on finding ways toward achieving food security (Lee – Smith, 2010). There has been growing evidence that the number of hungry people in Sub – Saharan Africa has continued to rise despite the increase in the global food production. Hunger is defined as the recurrent or involuntary lack of access to food (Von Grebmer, Fristchel, Nestorova, Olifinbiyi, Pandya – Lorch and Johannes, 2008; Lee – Smith, 2010). There are over one billion people estimated to be suffering from hunger and poverty, and they are mostly from poor countries (USDA, 2006).

The Food and Agricultural Organisation (2008) report shows that even before the recent surge in food prices, worrisome long – time trends towards increasing hunger were already apparent. The report further indicated that 848 million people suffered from chronic hunger worldwide in 2003 – 2005. The Sub – Saharan Africa (SSA) has been touted as the region facing more development challenges than any other region of the world, for instance, in 1980, one out of every 10 poor people live in Sub – Saharan Africa (SSA) and by year 2000, that ratio had risen to one in three. Future projection has shown that soon, it will be one in two; with this increasing numbers, approximately 38% of the poor are currently living in urban areas in SSA. This reveals the pathetic situation of the poverty, hunger and food insecurity in the region (FAO, 2008).

Poverty and food insecurity have been erroneously considered to be rural problems but some analysis have shown that urban poverty is not only growing rapidly but have been underestimated. In other word, poverty is becoming more urban (FAO, 2008).

Also, contrary to the popular beliefs that farming is done only in rural areas, the trend has shifted towards having farms locations in urban setting (Nashville.gov, 2012). This farming is done to bring about improve access to affordable food options which could be accomplished through creating and maintaining community garden, backyard poultry, orchards and crops grown on roof tops and backyard, piggeries and small ponds for fisheries (Smit and Nasr, 1992).

The Urban residents are increasingly exposed to daily challenges such as lack of safe water, inadequate sanitation; lack of environmental safeguards, increased poverty and food insecurity. This has consequently made most cities in developing countries becoming slum areas (FAO, 2008). The problem is further compounded with over 50 percent of people in the world living in urban areas. Therefore, urban food security, according to FAO (2008) report, has become a huge issue in developing countries where infrastructure is poor and the general poverty cannot accommodate increasing food prices. It was further noted that the Global food crisis has resulted in food riot which occurred in Haiti and at least 10 African countries in 2008. This situation does not call for a short term measure which only serves as buffer to the current problem of food supply but requires sustainable strategies to be implemented as indicated by the declaration of World Bank at the Conference on World Food Security held in Rome (FAO, 2008).

There has been encouragement in Nigeria towards agriculture practice by various governments, in form of programmes such as Operation Feed the Nation under Obasanjo regime and Green Revolution under Shagari Administration. The Operation Feed the Nation was introduced to bring about increase in local food production and everybody becoming capable to feed himself or herself through cultivation of available piece of land in urban, semi – urban and rural areas. The government provided the inputs freely to government institutions while individuals received these inputs at subsidised rate (Iwuchukwu and Igbokwe, 2012). The Green Revolution was aimed at increasing food production in order to ensure food security and self sufficiency in staple foods. The programme also aimed at boosting the production of livestock and fish in order to meet local and export needs; and diversify foreign exchange earnings of the nation. In other words, the thrust of these programmes are to increase food production and provide employment opportunities to the growing number of unemployed youths (Iwuchukwu and Igbokwe, 2012). It is unfortunate that both programmes by these successive governments did not achieve the desired goals due to lack of commitment by both the Individuals and government agencies.

In recent time, most people are engaged in small farming around and within their homes in the urban cities in order to bring about self sufficiency in food production and increase in income. This has consequently resulted in the importance of urban farming not only as means of producing fruits and vegetables for home consumption but its vision include: growing plants, raising animals for consumption, processing, distribution, marketing and sale of food products and food by – products, such as compost (Funders'

Network, 2011). Urban Agriculture is done on vacant urban lots, canals, grounds of institutions, roadsides, backyards, roof tops and in the form of hydroponic farming. Hydroponics is the soil - less form of growing crops and plants for animal food (Wikipedia, 2014; Smit and Nasr, 1992).

This study examines Urban Agriculture as one of the ways through which food can be produced, distributed and made accessible to the urban dwellers, thus filling the hunger gap in the cities

The general objective of the paper therefore, is to examine the marketing channel options available to the urban farmers in distributing food to the urban residents in Ilorin, Nigeria. Other specific objectives include:

- (i) To examine the effect of marketing channel on food distribution
- (ii) To determine the effect of years of farming experience on farm products distribution

#### LITERATURE REVIEW

Urban Agriculture has many definitions, but in this paper a review of few of these definitions will be undertaken. Smit and Naser (1992) described Urban Agriculture as food and fuel grown within the daily rhythm of the city or town, produced directly for the market and processed and marketed by the farmers or their close associates. This definition considers not only the production aspect of the agriculture but also the transformation of the raw materials gotten from these activities and the marketing of the output to the consumers or the end users. Urban Agriculture is also defined as crop and livestock production within urban boundaries which enhances access to and distribution of food to people in urban areas (Egziabher, et al., 1994). The definition also underlines the importance of this type of farming as one mechanism through which access and distribution of food can be enhanced in the urban areas. According to Lee – Smith (2010) extreme hunger can occur even in conditions of adequate production due to the absence of adequate distribution mechanism. This emphasise the importance of effective distribution of food products to the end users. The urban farmers therefore, need to take into consideration the channel option that would be used to distribute their farms' product to their customers.

Bailkey and Nasr (2000) described Urban Agriculture as the practice of cultivating, processing and distributing food in or around a village, town, or city. This definition does not limit the production and distribution of food to urban areas alone but also

include the villages and town as part of the production and distribution network. Urban Agriculture is considered as an industry that produces, processes and markets food and fuel, largely in response to the daily demand of consumers within a town, city, or metropolis, on land and water dispersed throughout the urban area, applying intensive production methods, using and reusing natural resources and urban wastes to yield a diversity of crops and livestock (Smit, Ratta and Nasr, 1996). The employment of urban waste to produce food is taking in to consideration in this definition. The Community Food system Coalition (2007) refers to Urban and Peri – Urban Agriculture (UPA) as the production, distribution and marketing of food and other products within the cores of metropolitan areas. This definition addresses community food security, neighbourhood development, environmental sustainability and other concerns (Funders' Network, 2011). The above review of literature on Urban Agriculture has clearly shown that three key issues are addressed in the definitions and they are: the production, marketing and distribution of food and other products within or around a village, town or city. The focus on these issues therefore becomes central to any tangible discussion on Urban Agriculture.

The issue of food security is very important because it guarantees the right to adequate food for all, whether the rich or the poor. According to FAO(2008), Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. This definition is a very comprehensive one and it explains that the food should not only be adequately available but safe for the people. The right to adequate food is a human right recognised by the United Nation Organisation (1999) document which stipulates that Food Security can only be possible if every human being everywhere should have the ability to produce or purchase safe, sufficient and nutritious food that is culturally acceptable, for an active, healthy and dignified life. This definition like the one provided by the Food and Agriculture Organisation earlier on, also emphasises the need for the food to be safe and sufficiently available for the people. The definition further recommended that the food should be culturally acceptable to the people. This aspect is also very important because of the diversities in cultures and social life of the people which sometimes dictate their taste and food preferences. In a right based approach to food security an individual is seen as an agent of change who hold governments accountable and to seek redress for violations of his or her rights. This approach is reflected in FAO's Strategic Frame Work 2000 – 2015 which stipulates that the Organisation is expected to take in to account the progress made in further developing a right based approach to food security in carrying out its mission of helping to build a food—secure world for present and future generations. The need for adequate and safe food for the people has therefore become a very sensitive issue which attracts the attention of not only the policy makers in the world but also academic researchers in all fields of endeavours.

Marketing Channel decisions have been described as among the most critical decisions facing management of organisation (Kotler, 2001). Marketing channel involves movement of goods from producers to consumers through intermediaries who perform variety of functions.

These intermediaries may buy, take title to, resell, negotiate on behalf of producers or assist in the distribution process (Kotler, 2001).

The intermediaries include wholesalers and retailers who buy, take title to and resell the merchandise; brokers, manufacturers' representatives and agents who take no title to the goods and facilitators which are mainly transportation companies, independent warehouses, banks and advertising agencies; which assist in distribution of goods (Kotler, 2001; Chu, Chintagunta & Vilcassim,2007; Bello & Williamson,1985). The more intermediaries that are involved the longer the channel. A direct channel has no intermediaries and is usually from producer to end – user while an indirect channel contains one or more intermediary levels (Marshall & Johnston, 2010; Vinhas & Anderson, 2005). There are several definitions of marketing channel, a review of few of these definitions will be considered.

Marketing channel is defined as sets of interdependent organisations involved in the process of making a product or service available for use or consumption (Stern & El – Ansary 1996; Kotler, Shalowitz & Stevens, 2008). This definition tries to separate production from distribution function. It also recognises distribution function as one of the important functions that need to be performed before consumption can take place by the consumer. This recognises distribution services as one of the ancillary functions that need to be performed in organisations for effective marketing of products to consumers to be achieved. Marketing channel is also known as trade channel or distribution channel (Kotler, 2001). This means the medium through which trade or exchange is carried out. According to Marshall & Johnston (2010), channel of distribution consists of interdependent entities that are aligned for the purpose of transferring possession of a product from producer to consumer or business user. This definition like the other definitions earlier considered in the study also describes channel distribution as the transfer of goods from the producer to the consumer or industrial or business user. Kim

(2007) viewed channel of distribution as a system of interdependent relationships among a set of organisations that facilitates the exchange process. In this definition, the importance of channel of distribution as a way through which exchange process can be achieved is clearly stated. Marketing takes place through exchange process and hence it can be argued that channel of distribution assist in bringing about the transfer of goods from producer to the consumer. In considering all the above definitions, marketing channel can therefore be defined as any means through which products or goods obtained from the producers are delivered to the end—users.

According to Cooperative Extension (2010) marketing channels are divided into direct and wholesale. Wholesale marketing is described as selling a product to a buyer who is not the ultimate end user while direct marketing is selling a product directly to the end user. There are several factors that determine which channels are best for farmers amongst which include: size and scale of a farming operation, years of farming experience, the demographics of the region and the farmers' preferences (Cooperative Extension, 2010).

In wholesale marketing channels, there is need for the farmers to be able to move large quantities of produce quickly but not always at a lower price than through direct channels. The farmers choosing the wholesale marketing channels options may sell directly to restaurant and retailers (without using a broker or distributor); or sell to distributors, produce auctions, processors, and produce brokers (Cooperative Extension, 2010). The wholesalers and retailers buy and resell the products, the independent warehouses and transportation companies provide distribution services for a fee while brokers present the product in the market place for a commission (Cornell Small Farms Program, 2013).

It is very important for farmers deciding on wholesale channels option to be prepared to meet expectations and requirements of wholesale buyers such as high and consistent level of washing, sorting/ grading and packing of farm products. The farmers need to communicate the quality and quantity of produce to the buyers, the produce should be cleaned and absent of soil or other foreign materials, there should be some level of food safety assurance to the buyers and produce is expected to meet standardised or uniform size, grade and shape. The crops that vary in size such as tomatoes, potatoes, egg plants, melon and apples need to be sorted. The wholesale customers expect standard packaging for their produce so they can manage inventories and compare pricing (Cooperative Extension, 2010).

The following types of wholesale channels are briefly discussed: The distributors are buyers who specialised in managing inventory and delivery logistics; they sell their products to restaurants, retail stores and institutional buyers such as schools, hospitals, prisons and nursing homes. Restaurants require small quantities of products relative to other wholesale customers, they develop a personal relationship with chefs who are looking for fresh and local products in their menu, they find out what the chefs want and grow a wide range of products for them (Cooperative Extension, 2010).

The grocery stores and food retailers are interested in sources of locally grown food. They vary from farm stands, farm stores independent grocery stores to large grocery chains. They do not grow all that they sell but seek additional local products to purchase. The Institutional and food service buyers include schools, colleges, nursing homes, hospitals and prisons, which deals in high volume sales at low prices from local farms. They are faced with institutional barriers such as regulations, requirements and permits that dictate their purchasing practices. The Produce auctions are unique wholesale marketing channel that are highly flexible and accept variable quantities of produce, sporadic supplies as well as variation in quality grade and size. Farm stand operators are common customers at produce auctions. Price risk seems to be the major challenge facing this type of wholesale marketing and it can be a way for a farmer to sell large quantities of perishable goods quickly (Cooperative Extension, 2010).

Direct marketing channels can be in the form of farmers' markets, seasonal farm stands and farm stores, u – pick or pick – your – own and Community Supported Agriculture (CSA). Other types of direct marketing are internet and mail order. This type of marketing channel generally offer higher prices than wholesale and may requires a greater diversity of products, though usually in smaller quantities. It involves more producers – customer interaction and therefore, consumes more time and demands customer – oriented skills of the producer (Cooperative extension, 2010). The various types of Direct Marketing channels are briefly discussed below:

Farmers' markets have grown in popularity as a result of emergence of the health and wellness movement, the surge of organic, natural, and eco – friendly foods. According to the Cooperative Extension (2010), many consumers and farmers believe that the farmers' market deliver higher profits to farmers because they eliminate the "middle man". They are labour intensive for producers and result in sales volumes which are lower than wholesale. The benefit of farmers' market go beyond cash income, they provide advertising for the farms' other channels such as u – pick, CSA, farm stand, wholesale and area chefs which may results in sales to restaurants.

The opportunity to observe and interact with more experienced farmers markets can help a beginning farmer to learn about marketing and develop marketing skills (Cooperative Extension, 2010; Cornell Small Farms, 2013).

3

It is also a good channel for backyard and hobby growers who can easily sell in the market. The negative aspect of this is that, the hobby farmers who may not need to maximise profit may drive down prices for larger scale farmers (Cooperative Extension, 2010).

Roadside farm stands and u – pick can be managed as minimally as producer's time and resources allow. This involves selling farm products at the farm, which may be self – serve stand or full – scale farm stores. U – Pick is a cost effective way to expand direct marketing that involves products being picked for the convenience of customers. The produce must be of good quality, fresh and maintain at a high level for success and profit to be achieved. The channels can be managed as staffed, with a sales representative tending to the customers, or unstaffed. There is need by the local farmers to develop a reputation for high quality produce through word of mouth and paying attention to what customers are looking for and build a product line based on what they want. Farm stands on a busy road are likely to attract more customers that will generate sales which would warrant investing in improved facilities and staff. On – farm sales may enable urban farmers make profit as well as attracting visitors to their farm sites, thereby fostering increased visibility and community engagement (Cooperative Extension, 2010; Cornell Small Farms, 2013).

Internet and Mail order are good channels for unique, high value products that are easy to ship. These channels serve as complement to other direct marketing efforts by the urban farmers. There is need by farmers to consider the packaging and shipping cost for the produce but for those that are not bulky and heavy it can result to a profitable venture. The farmers can avail themselves the opportunity offered by internet marketing by listing their farms and products on free sites (Cornell Small Farms, 2013).

According to the Cooperative Extension (2010) the Community Supported Agriculture(CSA) has been gaining momentum since its introduction to the United States from Europe in the mid – 1980s. In CSA, consumer members purchase "shares" of the farm's produce. Shares are purchased before the growing season begins thus making the risk of crop failure to be shared among members and the farm owners. Once harvest begins, members pick up their shares of fresh produce once a week at the farm.

There are two types of shares used: boxes shares and free choice shares. The free choice shares mean members can take a variety of produce in the quantities that they choose while in Boxes shares, they are pre – packed for the member and the variety and quantity of produce in the box is set by the farmer (Cooperative Extension, 2010; Cornell Small Farms, 2013). The CSA farms host special events or family days to strengthen the bond between farmer and consumer. The CSA channel also offers the farmers the benefit of being paid at the beginning of the season thus enabling them to be paid when crop fails. The customers have opportunity to share risk and enjoy whatever products are available (Cooperative Extension, 2010). The various marketing channel options discussed above have proved to be very significant (Cooperative Extension, 2010; Cornell Small Farms, 2013) to urban farmers in terms of distribution of farm products to consumers and hence this study attempts to examine the channels used, the benefits offered and the challenges being faced by the urban farmers in Ilorin. It is hoped that the result of the study will offer significant contribution to the present knowledge, considering the dearth of research in this area, most especially, with particular reference to Ilorin.

#### **METHODOLOGY**

This study was conducted in Ilorin city, Kwara State, Nigeria; between 5th t to 19th August, 2013. The study intends to determine the effect of marketing channel on food distribution to customers residence in Ilorin; hence the choice of Ilorin became very necessary considering her population and location with other cities in the study area. There is also high concentration of urban farmers in Ilorin than other major cities in Kwara State; such as Offa, Omu – aran, Ajase – Ipo, Jebba, Patigi, Lafiagi, Bode Saadu, and Kaima. This is as a result of vast development that is taking place on daily basis in Ilorin due to migration of people affected by sectarian crisis from the North, who have come to settle down in the city. The data was obtained through survey method using basically primary data in form of questionnaire and secondary data in form of materials obtained from journal articles, textbooks, and academic publications for the relevant part of the study. There are 562 questionnaire administered by six Research Assistants, to respondents in the city. The city was divided in to three zones: the Government reserved area, the suburb and the new sites. This is done in order to have a balanced coverage of the study area in terms of geographical spread, population, occupational distribution, income level and status of respondents. The Research Assistants also conducted interview with the respondents, as a follow up, to getting more information about those grey areas in the questionnaire. The response rate for the administered questionnaire was 88 % which equals to 492, indicating fair response from the respondents. The sampling technique employed by the study was the simple random method thus giving each respondent equal chance of being selected for the study. The questionnaire instrument used for the study consists of 26 items divided in to three sections. The first section contained questions relating to demographic characteristics of the respondents. The second section had questions on types of channel options available to respondents, the benefits and challenges accompanying respondents' choice of channel options while the third sections focussed on proffer solutions to the identified challenges facing the respondents. The statistical techniques used are Pearson Correlation and Analysis of Variance.

#### Statement of Research Hypotheses

The following Null hypotheses have been developed for the study:

- H<sub>1</sub>: Marketing channel used by Urban farmers has no significant effect on food distribution.
- H<sub>2</sub>: There is significant relationship between Urban farmers' years of farming experience and farm products distribution.

#### Results and Discussion.

The survey for this study revealed that 44% of the respondents are male while 56% are female. Out of the total respondents under surveyed, 93% indicated that they are involved in Urban farming. The information obtained through in-depth interview conducted along with the survey showed that most of the women took urban farming as a source of living and did no other job aside it. There are cases in which some of these women do the farming in partnership with their husbands who are engaged in private sectors where there is long closing hours.

In such situation the women do the running of the farm on behalf of their husbands. The women also form the bulk of those who indicated that they are either unemployed or self employed, which is 65 % under occupation. In the survey there are 15 % without formal education, the remaining 85% are literate and consists of 24% with primary education, 10% with secondary education and 51% having their first degrees from either University or Polytechnic. The level of the respondents' literacy greatly assists Research Assistants to have meaningful interaction and communication with them during the period under surveyed.

Respondents' age distribution of the urban farmers show that 4% are less than 20 years old, 7% of the farmers are between 20-30 years, 39% are in the 31-40 years age

bracket, 17% are between 41-50 years old and 34% are above 50 years old. This age distribution reveals that only fewer farmers are below 20 years compared with the 96% that are above 20 years old. The urban farmers are therefore, mature adults who are likely not going to be financially dependent on others. The information obtained from their income level further corroborated this, with only 5% indicating that they earn less than N40,000:00 per month, 68% earned between N40,001:00 – N80,000:00 per month, 24% earned N80,000:01 – N120,000:00 and 3% earned above N120,000:00. The respondents are therefore, able to get the startup capital to do their farming either from personal savings or combined resources gotten from their husbands or friends.

Urban farmers are found mostly in new site, they are about 70% of the respondents. This is followed by 23% who reside in Suburb part of the city and 7% who live in Government Reserved Area (G.R.A). There are fewer farmers in G.R.A. due to regulation on land use and very limited space of land available for farming. This is different from the situation in both new site and suburb part of the city where there is little regulation on land use and more availability of land for farming.

The highest proportion of those engaged in urban farming are married and they represented 73% of the total respondents, followed by 20% who are separated as a result of divorce or death of one of the spouse and 7% who are single or not yet married. There are 86% of the respondents who had children living with them; out of which 19% are having 2 children, 61% having between 3 to 4 children, 4% having 5 to 6 children and 16% having more than 6 children living with them. There are 86% of these farmers who indicated that these children assisted them in their farming activities. The farmers despite the assistance offered by their children also employed people to work on their farm and the survey revealed that 37% employed less than 3 people, followed by 32% who employed 3 to 5 people, 17% who employed 6 to 8 people, 10 % who employed 9 to 11 people and 5% who employed 12 and above people. The information obtained from in – depth interview confirmed that those with more children living with them employ fewer or no labour while those with fewer children living with them employed more labour. In situation where those with many children employ labour, it was done to enable those children to be trained on farming most especially poultry, animal breeding and those types of farming which require special skills and expertise. It was also revealed that those who employed above 5 employees are those who are doing the farming on medium or large scale for commercial purposes.

Direct marketing is the most popular channel of distribution used by the farmers. There are 86% respondents who opted for Direct Marketing. They argued that this method of distribution has the following benefits: there is no transport cost, no intermediary, it has flexible hours, its provide employment opportunities and income for their living. The fewer farmers who preferred wholesale marketing are about 14% of the respondents. They were of the opinion that the marketing channel has the following benefits compared with the direct marketing earlier discussed: The farmers sell large volume of products to customers, it serves as a quick way of moving large quantities of perishable goods, there is timely delivery of goods to buyers, they offer stable prices to their customers and enjoy effective communication with customers.

The major problems identified by the respondents for direct marketing form of distribution are: it serves as an intrusion on family life, there is limited growth potential for farmers who used this form of marketing channel, the farmers are prone to legal liabilities, it can be time consuming and there may be risk of security of transaction most especially if done through internet or on line. The drawback identified for wholesale marketing channel of distribution include: high level of labour needed; there may be institutional barriers such as regulations, requirements and permit that dictate purchasing practise; it is capital intensive; it required timely, consistent and high quality product delivery to customers and high level of risk and service.

Urban farmers who used Direct Marketing Channel sold their farm produce through Road side stand, followed by Cooperative, Restaurants, Retail outlets, Farmers' market, Institutional sales and Internet or Mail order. The use of internet or mail order is not very popular because of the risk of transaction and the fewer number of people having knowledge of Information Technology. In wholesale marketing the farmers sold their products through distributors, produce auction, processors and produce brokers. The distributors are used mostly for food crops while the other forms of wholesale marketing channel are for cash crops, which are normally raw materials processed for finished product.

### Hypothesis H1 with ANOVA to determine the effect of marketing channel on food distribution.

There are 492 respondents administered questionnaire, the response indicated that 309 agreed that marketing channel is an important means of product distribution while 183 respondents disagreed. The greater proportion of these respondents as earlier discussed, preferred direct marketing while fewer proportion preferred Wholesale marketing. The

Analysis of Variance (ANOVA) was used to determine if marketing channel has significant effect on product distribution at 491 degree of freedom and 5% significant level. The result of the analysis revealed that a significant relationship exist between Marketing channel used by the farmers and product distribution. This is shown in Table 1 below:

Table 1: ANOVA table for effect of Marketing Channel on Product distribution

Marketing Channel	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.145	1	5.145	43.153	.000
Within Groups	58.422	490	.119		
Total	63.567	491			

Source: Computer Printout April, 2004.

This result attempts to show that the kind of Marketing channel used by the farmers determines the level of product distribution to their customers. Direct Marketing channel allows direct dealing with the customers, thus enabling the farmers to get in touch with the end users. On the other hand, the wholesale marketing channel used the intermediaries such as agents, individuals, restaurants or institutions. These intermediaries retail the products to the end users. The chain of distribution in wholesale marketing is longer than and not as fast as the case in Direct Marketing. It is therefore, obvious that when respondents choose direct marketing channel the product distribution get faster to the customer or end users while for wholesale channel there may be delay or longer delivery of product to the consumer or end user. This indicates that marketing channel has significant effect on product distribution. The result obtained in this study further shows the importance of food distribution to achieving food security. This is also in agreement with the work done by Lee - Smith (2010) who argued that extreme hunger can occur even in conditions of adequate production due to the absence of adequate distribution mechanism. He therefore suggested that increasing food production and improving access and distribution are the only way to achieve food security. Therefore, the null hypothesis that there is no significant relationship between marketing channel and product distribution should be rejected.

## Hypothesis H2 with Pearson Correlation to determine the relationship between urban farmers' farming experience and farm production.

The variable of interest for this hypothesis is farm production which is the dependent variable (Var 010). The Independent variable is farming experience (Var 014) of the respondents and this is divided into the following: less than 5 years, 5 to 10 years and above 10 years.

There are 52% of the respondents with 5 to 10 years farming experience, 38% revealed that they have above 10 years farming experience while 10% of the respondents have less than 5 years experience. The information thus revealed that greater proportion (90%) of respondents are experienced farmers and have been doing it for long period of time.

This study wants to test if significant relationship exists between the farming experience and farm production by the Urban farmers. The Pearson Correlation performed by SPSS Version 16 is shown in Table 2 below:

Table 2: Correlation between Farming experience and farm production

		Farm Production	Farming Experience
Farm Production	Pearson Correlation	1	.484(**)
	Sig. (2-tailed)		.000
	N	492	492
Farming Experience	Pearson Correlation	.484(**)	1
	Sig. (2-tailed)	.000	distributed.
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N to the	492	492

<sup>\*</sup> Correlation is significant at the 0.01 level (2-tailed).

Source: Computer Printout April, 2004.

The result of the analysis in Table 2 above indicated that a significant correlation (r = 0.484) exists between farming experience and farmers' production. This is significant at 99% level. The correlation though not very strong (r = 0.484) but is significant as shown in Table 2. This result reveals that the farmers' farming experience has significant effect on their production. In other word, farmers with long year of farming experience are likely to produce more than those with lesser year of farming experience. This may be as a result of their improved farming method, increased knowledge about market for their products and access to more capital and land used for farming. The Null hypothesis that there is significant relationship between farming experience and agricultural production is therefore true and accepted.

#### **CONCLUSION AND RECOMMENDATIONS**

This study has shown that effective Marketing channel is one of the ways through which the objective of food security can be achieved. Urban farmers therefore, need to choose the most cost effective marketing channel that would ensure adequate food distribution to the people. The farming experience of Urban farmers also influences their food production. This is because those with long year of farming experiences tend to produce more due to their improved farming method, increased knowledge about market for their products and access to more capital and land used for farming. The growing interest in urban agriculture in most of these developing countries will consequently bring about more food productions, improved standard of living, reduction in poverty and maximum utilisation of available land for productive and economic purposes.

There are some challenges identified in the study as facing Urban Agriculture, the following recommendations are suggested to address them:

- (i) Institutional barriers to the development of urban agriculture should be removed. The government should try to remove land regulation that hinders the use of land for economic and productive purposes, most especially the vacant and abandoned land in the cities. Institutional buyers such as schools, hospitals, hotels, restaurants, prison and other corporate organisations should also create a conducive environment that would ensure farmers do business with them with ease, rather than the bureaucratic hurdles that some have put in place in their organisations.
- (ii) Urban Farmers should be encouraged to form Association such as Cooperative Society. This would enable them have access to more fund and also make it easier for the experienced ones to train other with little or no farming experience.
- (iii) The Government needs to address the issue of poor infrastructural facilities, which have become one of the major problems facing industrial development in most developing countries. The government should ensure regular water and electricity supply in both the rural and urban centers. There should be in addition, good road networks that would serve as a linkage between those in the rural and urban communities. This would facilitate more economic activities between those in the rural and urban cities. The cost of transportation will also be reduced together with the risk associated with travelling on bad roads, if government can direct their effort towards having new and good roads.
- (Iv) Agricultural produce should be effectively distributed to the consumers because this is one of the means through which food security can be achieved. The farmers should use channel that offer them lowest cost and promote their goods through the Internets at a cheaper cost, this may offer a wider coverage in terms of audience reach.

There is great potential in encouraging Urban Agriculture apart from increase food production, it also offer many benefits which lead to improve quality of life and well being. The continuing increase in food insecurity and unemployment will consequently make Urban Agriculture to be more relevant as a suitable alternative towards self sufficiency in food production and poverty eradication.

#### REFERENCES

- Bailkey, M and J. Nasr (2000). From Brownfields to Greenfields: Producing Food in North American Cities. Community Food Security News.
- Bello, D. C. and Williamson, N. C. (1985). The American Export trading Company: Designing a New International Marketing Institution. Journal of Marketing. Vol. 49(1). Pp 60–69.
- Chu, J; Chintagunta, P. K. and Vilcassim, N. J. (2007). Assessing the Economic value of Distribution Channels: An application to the Personal Computer Industry. Journal of Marketing Research. Vol. 44(1). Pp 29–41.
- Community Food System Coalition (2007). The North American Urban and Peri Urban agriculture Alliance. Available at www.foodsecurity.org/NAUPAA\_description\_Nov\_2007.pdf
- Cooperative Extension (2010). Guide to Marketing Channel Selection. Available at http://ccetompkins.org
- Cornell Small Farms (2013). Guide to Urban Farming in New York State. Available at www.nebeginningfarmers.org
- Sawio, C.J. (Editors) (1994). Cities Feeding People: An Examination of Urban Agriculture in East Africa, IDRC, Ottawa, 146 pages.
- Alleviation and Food Security. United Nation Rome.

- Funders' Network (2011). Investing in Healthy, Sustainable Places through Urban Agriculture. 1500 San Remo Avenue, Suite 249, Coral Gables, FL 33146. Available @ www.fundersnetwork.org
- Iwuchukwu, J. C and Igbokwe, E. M. (2012). Lessons from Agricultural Policies and Programmes in Nigeria. Journal of law, Policy and Globalisation. Vol. 5. Pp 11 22. Available at www.iiste.org
- Kim, S. K. (2007). Relational Behaviours in Marketing Channel Relationships: Transaction Cost Implications. Journal of Business Research. Vol. 60 (11). Pp 1125-34.
- Kotler, P (2001). Marketing Management The Millennium Edition. Prentice Hall of India. New Delhi 110 001.
- Kotler, P; Shalowitz, J. and Stevens, R. J. (2008). Strategic Marketing for Health Care Organisations: Building a Customer Driven Health System. Jossey Bass. A Wiley Imprint, San Francisco, CA.
- Lee Smith, D (2010). Cities feeding people: an update on urban agriculture in Equatorial Africa. Environment and Urbanisation.22:483.
- Marshall, G. W. and M. W. Johnston (2010). Marketing Management. McGraw Hill Irwin. Mexico City.
- Nashville.gov (2012). Social Services Urban Agriculture Alleviates effects of Poverty. Metro Government of Nashville and Davidson County, Tennessee.
- Smit, J and Nasr, J. (1992). Urban Agriculture for sustainable cities: using wastes and idle land and water bodies as resources. Environment and Urbanisation. Vol. 4. No 2. Pp 141 152.
- Smit, J; Ratta, A. and Nasr, J. (1996). Urban Agriculture: Food, Jobs, and Sustainable Cities. United Nations Development Programme (UNDP), New York. NY.

- Stern, L. W and Ansary, A. I. El (1996). Marketing Channels (5th Ed.). Upper Saddle River, NJ: Prentice Hall. Pp 5 6.
- United Nation Organisation (1999). The Voluntary Guidelines to Support the Progressive Realisation of the Right to Adequate Food in the context of National Food Security. (UN doc.E/C.12/1999/5).
- USDA (2006). Food Security Assessment 2005, Agriculture and Trade Reports GFA 17, Washington DC.
- Vinhas, A. S. and Anderson, E. (2005). How Potential Conflict Drives Channel Structure (Direct and Indirect) Channels. Journal of Marketing Research. Vol. 42(4). Pp 507-15.
- Von Grebmer, K. V.; Fristchel, H., Nestorova, B.; Olifinbiyi, T.; Pandya Lorch, R. and Johannes, Y. (2008). Global Hunger Index: The Challenge of Hunger 2008, Welthungehilfe, IFPRI, Concern Worldwide, Bonn, Washington DC, Dublin. 40 Pages.
- Wikipedia (2014). Urban Agriculture. Wikipedia, the free encyclopedia.