Establishment of Irrigations for Effective Marketing of Agricultural Produce

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Abstract

The study examined establishment of irrigations for effective marketing of agricultural produce. The specific objective is to ensure that irrigations established are providing water flow over lands for nourishing crops among others. Research question is to what extent do irrigations cause water flow over lands for nourishing crops among others. Research hypothesis is, there is no significant relationship between irrigations and causing water to flow over lands for nourishing crops among others. Review of related literature had insight at facilitating institutions in the marketing of agricultural products. The economic theory was propounded by Han and Mathews (1966); which was discussed. Empirical review was stated. Survey research design was embraced. Area of the study was Ekpe farm settlement at Ihiala, Ihiala local government area, Anambra state, Nigeria. Population of the study was farmers in Ekpe farm settlement. The sample size was 215 but 206 copies of questionnaire were used and duly filled. Two point likert scale of questioning was adopted. Discussion of the study was based on establishment of irrigations for effective marketing of agricultural produce. The study concluded that establishment of irrigations and effective marketing of agricultural produce. The study recommends that federal or state government is expected to establish irrigations for the farmers among others.

Keywords: Establishment, Irrigations, Effective marketing, Agricultural produce and feeder roads.

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Background to the Study
Establishment of irrigations is very essential for cash crops and food crops to produce healthy crops. Cash crops can boom an economy of a nation; because such a nation indulges in foreign exchange. Cash crops are those that earn foreign exchange for the nation, such as tobacco, cocoa, palm oil, palm kernel, groundnut, rubber, cotton etc. A nation can depend solely on food crops. Food crops on the other hand, include rice, beans, cassava, yams, maize, fruits and vegetables. According to (Rimando, 2004) agriculture is the systematic raising of useful plants and livestock under the management of man. Agriculture involves cultivation of crops raising and breeding of livestock, processing, storage, distribution and marketing of agricultural products. Irrigation, is the act or process of irrigating, or the state of being irrigated; especially the operation of causing water to flow over lands, for nourishing plants. Agriculture is the deliberate effort to modify a portion of Earth's surface through the cultivation of crops and the raising of livestock for sustenance or economic gain, Rubenstein, (2003).

Marketing of agricultural produce involves so many marketing services which are those activities; that are essential in order to accomplish the overall marketing functions such as: transportation, storage, grading and standardization, packaging, financing and risk bearing. Effective marketing of agricultural produce becomes more important to a country whose products are export oriented since earnings from such exports are used to execute development programmes.

As opined by Abellanosa and Pava, (1987), agriculture is the growing of both plants and animals for human needs. Effective marketing of agricultural produce is that it serves as an indicator of consumer preferences through the prices; the consumers are prepared to pay. This in turn affects the production decision of farmers since they are more likely to produce food crops and livestock which have high demand. Effective marketing of agricultural produce points out that the more the goods are available for marketing, the more people are employed in their marketing activities and hence the higher the standard of living which will consequently add to the wealth of the nation.

Statement of the problem
The challenges militating against effective marketing of agricultural produce are numerous. It is so because not all the farmers in Nigeria could reach all it takes to be a prolific farmer. As a matter of fact, the feeder roads to the farm lands are not easily accessible. It requires communal effort to at least make the roads accessible; for trucks to ply especially during harvest. Establishment of irrigations are capital intensive, which means that not all the farmers could afford to establish an irrigation; that will be able to produce crops during off season. Referring to this fact, it is a challenge militating against agricultural produce. It is a problem that keeps the farmers in a puzzle.

Objectives of the Study
The general objective of the study is to examine establishment of irrigations for effective marketing of agricultural produce.
The specific objectives are to:
1. Ensure that irrigations established are providing water flow over lands for nourishing crops.
2. Ensure that cash crops produced are healthy for foreign exchange
3. Ensure that food crops produced are healthy for consumption

Research Questions
This study deems it necessary for these research questions to be attended to; the research questions are:
1. To what extent do irrigations cause water flow over lands for nourishing crops?
2. To what extent do healthy cash crops produce for foreign exchange?
3. To what extent do healthy food crops produce for consumption?

Research Hypotheses
This study requires that these research hypotheses are to be tested. The research hypotheses are:

\( H_0: \) There is no significant relationship between irrigations and causing water to flow over lands for nourishing crops.

\( H_{0c}: \) There is no significant relationship between cash crops and healthy crops for foreign exchange

\( H_{0f}: \) There is no significant relationship between food crops and healthy crops for consumption

Review of Related Literature
Conceptual Review
Facilitating Institutions in the Marketing of Agricultural Products
The various agricultural products harvested at the end of each farming season are marketed through intermediaries. The intermediaries are
a. Farmers themselves
b. Wholesalers, Distributors, Retailers, Traditional markets etc.
c. Food processing industries of factories.

The organigram below illustrates how agricultural products are being produced; and these agricultural products are also marketed. Intermediaries market these agricultural products. The farmers or producers harvest the agricultural products from the farm. The agricultural products are conveyed plying through feeder roads. At times the farmers sell directly to consumers which is known as direct channel or zero channel.

Wholesalers do purchase directly from farmers or producers in a very large quantity and as well sell to retailers who eventually sell to consumers. The farmers or producers equally sell to food processing industries. These food processing industries, transform agricultural products to some other products that are being packaged. The packaged products can be bought by wholesalers, trade associations, distributors, etc. The intermediaries sell to supermarkets, traditional markets, institutions, hotels and at times to consumers. The food processing
industries usually obtain sales depots in cities or states from which, the packaged products are distributed. Wholesalers buy in large quantity and sell to hotels and institutions where consumers normally buy from.

**Fig. 1**

The diagram illustrated how harvest agricultural products are being conveyed from the farm to consumers. Furthermore, how some of the agricultural products move from the farm to food processing industries and eventually get to consumers.

**Theoretical Framework**

This study will anchor on relevant economic theory which was propounded by Han and Mathews (1996). As it is agricultural marketing has no distinct body of theory of its own. Therefore, analytical frameworks for marketing studies are sets of relevant theories drawn from general economics. Relevance is largely determined by the economic functions performed in a marketing system, the nature of the specific marketing problem under study and the economic forces and restraint in agricultural markets.

As opined by Israel and Wilson (2006), knowledge of clients' use of information channels can have an impact on reaching those clients, and consequently achieving intended outcomes. The well-known theories of consumer demand, production, pricing, farmer demand for inputs, market information, behavior of the firm, innovation, storage, transportation, competition, countervailing power and others.
Among these, the theories of consumer and farmer demand for farm products, inputs and marketing services are especially useful for explaining and predicting how and why the structures of these demands change during development. Apantaku (2007), stated that basic research is the process of using the abstract principles of pure sciences to find out why, how and wherefore of all operations in agricultural production and management.

The theory of production is important since most marketing operations involve the production of goods and services. In the view of Eicher and Staatz (1984), improved agricultural technologies are, for the most part, the product of formal agricultural research systems. They require inputs of productive factors. With technological advance in marketing, rising wages and increases in market size during development, analyses of economics of scale and changes in substitution relationships among productive factors acquire great importance in marketing studies. According to Quinones (1999), to arrest the problems of poverty and food insecurity in many of the developing countries, the critical role of agricultural intensification as the engine of broader economic growth is becoming increasingly clear to the government and leaders. The relevant economic theory explains that it is vital to establish inputs factors for production of agricultural products. As the premise stands establishment of irrigations is one of the inputs. It explains further that it will enhance the marketing of agricultural products and create an enabling environment.

Empirical Review
Etwire, Dogbe, Martey, Owusu and Fearon (2014) had a study on innovative agricultural technology dissemination: finding a new use for motor tricycle. Population of the study comprises of farmers in Dagombas and Gonja, Ghana. A multi stage sampling technique was used. Data collected and observations made were subjected to descriptive and logit statistical analysis as well as fried man test in order to generate results for discussion. Sample size of the study was three hundred and twenty two (222). The study found out that maximum impact, female farmers, members of relatively small households and elderly farmers should be targeted. The study recommends that agricultural technology interventions should employ either one firm demonstration or video shows, especially when constrained to adopt only a single awareness creation technique.

Bite and Anand (2017) conducted a study on role of social media in agriculture marketing and its scope. The study adopted a descriptive research and the primary data collection tools were structural questionnaire and in-depth interviews from farmers who use social media. For this study, researcher selected one hundred (100) resonances randomly and focuses group discussion for the collection of the data from the farmers. The study found out that farmers were getting right information on right time. The results of the study shows role of social media in agricultural marketing are dominated by males. The study recommended that Facebook is the most likely social media for pages and profiles.

Methodology
Research Design
The study embraced survey research design. Survey research design is very suitable because it places transparency about findings or discovery of the study.
Area of Study
The study took place at Ekpe farm settlement in Ihiala, Ihiala local government area, Anambra state, Nigeria.

Population of the Study
Population of the study was farmers who settled in Ekpe Farm settlement. Ekpe farm settlement is in Ihiala, Ihiala local government area, Anambra state, Nigeria. The farmers reached were two hundred and fifteen (215) in Ekpe farm settlement, Ihiala in Anambra State, Nigeria.

Sampling Plan
Sample plan, consists of sample designs, which refer the different ways, a researcher draw samples from any given population according to Nnamdi (1991). Sampling plan comprises of sample procedure. The sample unit concerns the farmers who settled in Ekpe farm settlement, Ihiala, Ihiala local government area, Anambra state, Nigeria. The sample size of the study was two hundred and six (206) respondents duly filled their copies of questionnaire and the copies were used for the study. Method applied was the distribution of questionnaire. The procedure adopted was non-probability sampling and the type applied was the convenience or accidental sampling procedure.

Data Presentation and Analysis
On the collection of the copies of questionnaire, it was recorded that two hundred and six (206) copies were to be in a useful form.

Table 1: Gender of Respondents

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>06</td>
<td>03</td>
</tr>
<tr>
<td>Male</td>
<td>200</td>
<td>97</td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td>100</td>
</tr>
</tbody>
</table>


From the data collected, there were six female respondents as farmers in Ekpe farm settlement. The percentage was (03%) while two hundred (200) male respondents were farmers in Ekpe farm settlement. The percentage was (97%).
Table 2: Analysis of Attitude Questions; Establishment of Irrigations and Effective Marketing of Agricultural Procedure

<table>
<thead>
<tr>
<th>S/N</th>
<th>Question</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do state or federal government establish irrigation for farmers in Ekpe farm settlement</td>
<td>95 (46%)</td>
<td>111 (54%)</td>
</tr>
<tr>
<td>2</td>
<td>Do farmers in Ekpe farm settlement produce agricultural products during off season</td>
<td>152 (74%)</td>
<td>54 (26%)</td>
</tr>
<tr>
<td>3</td>
<td>Do feeder roads being maintained by farmers in Ekpe farm settlements</td>
<td>26 (13%)</td>
<td>180 (87%)</td>
</tr>
<tr>
<td>4</td>
<td>Do farmers in Ekpe farm settlement indulge in effective marketing of agricultural products</td>
<td>201 (98%)</td>
<td>05 (2%)</td>
</tr>
<tr>
<td>5</td>
<td>Does Ekpe farm land seem to be fertile</td>
<td>204 (99%)</td>
<td>02 (0%)</td>
</tr>
</tbody>
</table>

Analysis of Likert Questions

1. The researcher beseeches to know the respondent's opinion in Ekpe farm settlement, Ihiala. Out of two hundred and six (206), ninety-five (95) agree that State or Federal government establish irrigation for farmers in Ekpe farm settlement which resulted to (46%). While one hundred and eleven (111) disagree that state or federal government establishes irrigation for farmers in Ekpe farm settlement, the percentage was (54%).

2. The researcher implores to know the respondent's opinion in Ekpe farm settlement, Ihiala. Out of two hundred and six (206), one hundred and fifty-two (152) agree that farmers in Ekpe farm settlement produce agricultural products during off season and the percentage was (74%). While fifty-four (54) respondents disagree that farmer in Ekpe farm settlement do produce agricultural products during off season and the percentage was (26%).

3. The researcher seeks to know the respondent's opinion in Ekpe farm settlement, Ihiala. Out of two hundred and six (206), twenty-six (26) agree that feeder roads were maintained by farmers in Ekpe and the percentage was (13%). On the other hand, one hundred and eighty (180) respondents disagree that feeder roads were not maintained by the farmers in Ekpe and the percentage was (87%).

4. The researcher demand to know the respondent's opinion in Ekpe farm settlement, Ihiala. Out of two hundred and six (206), two hundred and one (201) agree that farmers in Ekpe farm settlement indulge in effective marketing of agricultural products which amounted to (98%). While five (05) respondents disagree those farmers in Ekpe farm settlement do not indulge in effective marketing of agricultural products which resulted to (2%).

5. The researcher obliges to know the respondent's opinion in Ekpe farm settlement, Ihiala. Out of two hundred and six (206), two hundred and four (204) agree that Ekpe farm land seem to be fertile which was (98%). Meanwhile, two respondents (02) disagree that Ekpe farm land does not seem to be fertile, which resulted to (0%).

Discussion

The study discussed about establishment of irrigations for effective marketing of agricultural produce. Farmers settled in Ekpe farm land, these farmers produce agricultural products, which they market through intermediaries until the agricultural products get to the final
consumers. At times, the farmers themselves market directly to consumers; which is known as direct or zero channels. Establishment of irrigations provides agricultural products during off season.

Agriculture provides food for the entire population of the country, as well as providing raw materials for agro based industries in the country. It provides employment for people because more than 65% of the productive people are engaged in agriculture in one way or the other. It earns the much needed foreign exchange for many countries along the coast of West Africa including Nigeria. Agricultural products are exported to earn the foreign exchange. However, before the oil boom during the 70's, agriculture contributed over 80% of the country's foreign exchange earnings. Agriculture provides market for certain industrial goods which could be utilized for agricultural production, such as tractors, animal feed, fertilizers, hoes and cutlass. Agriculture provides both unskilled and semi skilled labour required in industries etc.

Conclusion
The study concluded that establishment of irrigations aid effective marketing of agricultural produce. Agriculture provides employment for people, which can be unskilled or semi skilled. Agriculture provides foreign exchange for a nation and a nation can depend solely on agriculture.

Some agricultural products can be processed for some consumers to consume; because not all agricultural products can be consumed in the raw form. For effective marketing of agricultural products the feeder roads are to be maintained often to enable access to the farm lands.

Recommendations
The recommendations of this study are

1. Federal or State government is expected to establish irrigations for the farmers.
2. Federal or State government is expected to maintain the irrigations if established.
3. Federal or State government should ensure that farmers pay taxes, since a lot of agricultural produce will be sold.
4. Federal or State government should provide pesticides, herbicides, fertilizers for farmers at affordable prices.
5. Federal or State government should ensure that the feeder roads are accessible.
References


