

Assessment of the Use of E-Marketing among Agribusiness Firms in South East Nigeria

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Abstract

The importance of marketing to any business can not be over emphasized . There are so many defects in the present marketing system such as the way of making the prospective customers know the products the firms have, locating the right firms that have the products needed by consumers. The broad objective of this work is to assess the use of emarketing by agribusiness firms in South Eastern Nigeria. Specifically, the study ascertains the extent of use of emarketing by agribusiness firm in south east, the perception of the agribusiness firms to the use of emarketing in their business, and the performance of firms as they age in e-marketing. The data were obtained from primary sources through well-structured questionnaire, observation and oral interviews. The data were analyzed using descriptive statistics, regression and likert rating scale techniques. Findings from the study show that e-marketing has not be fully adopted in south east Nigeria, and that e-marketing when well-practiced can help reduce cost, reduce time, promote sales, improves sales and increase production generally.

Keywords: E-marketing; Agribusiness; Innovation adoption; ICT; Perception.



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1. Introduction

Marketing is the process of communicating the value of a product or service to customers, for the purpose of selling a product or service. Agricultural marketing is the performance of all business activities involved in the flow of food products and services from the point of initial agricultural production until they are in the hands of final consumers. (Kohls, 1985). According to the national commission on agriculture, agricultural marketing is a process which starts with a decision to produce a saleable firm commodity, and it involves all the aspects of market structure or system, both functional and institutional, based on technical and economic considerations, and includes pre and post harvest operation, assembling, grading, storage, transportation and distribution.

E-marketing simply put, is marketing that is done electronically. It takes a wide range of forms, from television and radio to a much newer forms such as mobile phone and internet marketing. Television and radio were the early forms of emarketing, which are gradually being taken over by mobile phone and internet, except for the newly introduced smart television, which has internet facilities. Newer forms of emarketing include; newsletter mailing, social media (facebook, twitter, etc), search engine optimization (eg. getting your company to show up on google search), mobile, webinars (organising online seminar), video on youtube, blogs, pay per click ads or banner, email et cetra.

One of the major problems facing agribusiness firms today, is how to market their product. As a result of the nature of agricultural products, those that can not be stored as a result of their perishable nature, have to be transferred to the final consumer as soon as possible. The degree to which agricultural product gets to the hands of the final consumer, depends greatly on the marketing channel. As a means to increase marketing, in this computer age, emarketing was introduced, as an improved method of marketing.

The newest channels of marketing are electronics (Kotler, 2003). In the present era of globalization, trade liberalization and privatization, information technology (IT) plays a vital role to make a produce competitive in the global market through email, multimedia, electronic banking, internet, world wide web and so on. (Talathi, 2007). E-marketing is widely practiced in the western world, in the general purchase of goods and services and has been extended to agriculture. In Nigeria, E-marketing of agricultural product is presently facing some challenges because of high level of illiteracy among farmers in Nigeria.

Poor marketing has been a major concern in agriculture production. Most farmers are at the mercy of exploitative middlemen, who buy product from farmers at a very reduced price and sell at a higher price to

consumers, attaining a higher net profit than the farmers. In most cases a greater percentage of the marketing margin goes to the middlemen and transfer cost. E-marketing is a marketing system that do not need middlemen to get the product to the final consumer, because it is a form of marketing that is done directly between the with consumer and farmers provided there is an electronic device for communication.

A good marketing system is important in agriculture production, because of the perishable nature of agricultural product and many farmers in Nigeria are faced with problem of inadequate storage facilities, which give rise to loss of initial quality of product and may in turn affect demand of the product, consumer satisfaction and also farmer's income. This makes it eminent to get agricultural products down to the final consumer as soon as possible, to reduce post harvest loss to its minimum levels, so that farmers can attain maximum profit. E-marketing can make product available to consumer in a shorter time, because with farmers communicate necessary information to consumers, such as, maturity of product and availability of product to consumers.

Lately, much emphasis are being made by the government for the need of increase in agricultural production as a way to boost our economy. Attaining an increased agricultural production, without proper marketing channel put in place will affect the sustainability of agriculture production because marketing is an integral part of production.

Traditional marketing takes a longer time for product to get to final consumer than e-marketing, because farmers seek for available consumers, unlike e-marketing that a willing consumer will communicate interest to farmers directly without the farmer necessarily seeking the consumer. In comparison, to an extent, e-marketing stands to increase profitability and productivity than traditional marketing because it is time effective

This study looks at the assessment of the knowledge of e-marketing, among farmers in South Eastern part of Nigeria. The broad objective of this work is to assess the use of emarketing by agribusiness firms in South Eastern Nigeria.

The specific objectives are to:

1. Ascertain the extent of use of emarketing by agribusiness firm in south east;
2. Determine the perception of the agribusiness firms to the use of emarketing in their business;
3. Ascertain the performance (output) of firms as they age in e-marketing; and
4. Describe the emarketing channels and agribusiness activities involved.

The importance of marketing to any business can not be over emphasized . There are so many defects in the present marketing system such as the way of making the prospective customers know the products the firms have, locating the right firms that have the products needed by consumers. Among the numerous problems facing agricultural marketing in Nigeria, poor access to marketing information is one that is caused by poor communication. Effective communication is the key to successful business (Naik, 2007). Traditional marketing uses interpersonal communication method, which can be time consuming, and thus reduces firm's space coverage, while emarketing uses electronic communication which can be time effective.

It makes communication between producer and consumer, to be more effective and more direct, because they can communicate at any time and from any place, electronically. Also, the producer can easily perceive the need of the final consumer and can also improve quality of products to attain consumer satisfaction and enhance productivity. It is a convenient way of marketing for both the producer and the consumer.

In this present growing economy, where there is a lot of improved technology, such as the internet, smart phone, smart television,emarketing has been introduced and it is fast growing. Internet is the fastest growing communication medium on earth at present (Kuboye and Ogunjobi, 2013). Internet has a pervasive influence on every aspect of our lives, from education to health to media consumption to even religion and marketing is no exception. (Drucker, 2013).

E-marketing is a way of expanding the reach of agribusiness firms, it is a very effective tool in this era of improved technology. Most business in the world are operated electronically, whereby you can buy a product electronically, through e-payment and have it delivered to you, which sometimes attract delivery charges, as seen in amazon.com, alibaba.com etc.

Information technology tools have been tested and widely accepted widely and can be used to solve the problem of marketing faced by agribusiness firms. (Kuboye and Ogunjobi, 2013).Increased marketing can not be achieved without emarketing , in this computer age.

The primary objective of agricultural economists is to maximize profitability in agriculture to the benefit of the society. They pursue this aim through studying and analysing the aspect that influence the agricultural economy and distribution of resources.

Agricultural economists advise the agricultural sector on issues such as financing, marketing, agricultural development, policy, research and production. Agriculture marketing is a core part of agricultural economics which involves all aspects of marketing such as the price system and market types. E-marketing is a recent development in agricultural marketing, it enables the agricultural economist in taking decisions pertaining distribution and marketing of agricultural products, because it creates effective communication between the consumer and the producer, which enables the producer to ascertain when and where a product is needed at each point in time. The aim to attain maximum profit, led to e-marketing of agricultural product as a means to improve marketing.

There is need for improved marketing system so as to increase production, have a wider range of customer and encourage exportation. A lot of business firms all over the world now practice emarketing , because it is believed to be more convenient and has a wider reach. It is believed that it will also thrive in agricultural sector, due to perishable nature of agriculture products, if the customers can be reached easily and faster, it will subsequently reduce loss.

2. Methodology

The study covers five states of South-Eastern Nigeria namely Abia, Anambra, Ebonyi, Enugu and Imo state. Random sampling was adopted in the selection of seventy-one (71) in the five states in south-east of Nigeria. Respondents were randomly selected in each of the five states to make up the study sample.

Data collection for this study was carried out in November 2013. Data were collected from both primary and secondary sources. Primary data were collected using questionnaires and personal interviews to gather adequate information. The questions were well structured to cover the objectives of the work. The information collected using the questionnaire include; the socio-economic characteristics, the preferred type of marketing method, duration of e-marketing practice in firm, type of e-marketing used by agribusiness firm and performance of firm (in terms of annual income) as they age in e-marketing. Secondary information was gathered and used for literature review in chapter two.

Objective (1), (2), and (4) were analyzed using descriptive statistics of frequency and percentages. Part of objective (2) was analyzed using Likert rating scale technique, while objective (3) as analyzed using multiple linear regression analysis. Multiple linear regression analysis was used to analyze the effect of marketing method, duration of e-marketing practice, number of firm units, educational qualification, total number of employee, age of firm and type of ownership on the total annual income. The linear function can be represented as follows:

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + e$$

Where;

Y= Dependent variable (Total annual income)

B₀= Intercept

B₁-B₇= coefficient of explanatory variables

B₁= Marketing method practised (E-marketing and Traditional Marketing)

B₂= Duration of e-marketing practised (No. of years of Practicing E-marketing)

B₃= Number of firm units (No. of units to assess the size of the firm)

B₄= Educational qualification (Tertiary, Secondary and Primary Education)

B₅= Number of employee (Total number of Employees)

B₆= Age of firms (Years of Existence)

B₇= Type of ownership (Private, Government and community)

e= Stochastic error term

To determine the effect of e-marketing on firms, a four-point Likert-type scale of strongly agree (4), agree (3), disagree (2) and strongly disagree (1). The mean score of respondents based on the 4-point Likert rating scale is $4+3+2+1 = 10/4 = 2.5$ cut off point. On basis of the cutoff point, any mean score below 2.5 is regarded as disagree and strongly disagree, while those greater than or equal to 2.5 are regarded as agree and strongly agree.

3. Results and Discussion

3.1. Extent of Use of E-marketing by Agribusiness Firms

a) Communication Technology Used by Firms

An effective way to measure e-marketing is to ascertain the communication technology used by firms. From [table 1](#) it was observed that the entire 71 respondents use phone, as a means of communication to their customers. If we were to measure e-marketing with only phone we will, therefore, conclude that e-marketing is fully adopted in the study area. However, this work definition for e-marketing encompasses other communication technology such as internet, television, radio and so on.

b) Tools for Storing Information (Record Keeping)

The means by which firms store information is another means of ascertaining the extent of e-marketing practised in firms because the means by which firm store information is an indication of advancement of use of technology by firms. Older firms that are not technological advanced will store information in the traditional method of bookkeeping, while modern firms will adopt the electronic means of storage which is a newer technology, like phone, pads, laptops, computers, internet and so on. From [table 2](#), It was observed that the study area that firms store information more on computer device as well as bookkeeping. 52.1% uses computer for storage of information, 31% uses bookkeeping, 15.5 uses phone, and 1.4 other forms such as pads and e-mails.

c) Product Marketing on Web

The extent to which e-marketing is being used can also be ascertained through marketing of product on web (internet web). A firm that practices product marketing on web automatically practices e-marketing to a great extent. As seen in [table 3](#), most of the respondents were yet to go into product marketing on web. 69% of the respondent said, "no" (indicating that they do not practice web marketing), while 31% of the respondents said "yes" (indicating that they practice web marketing). Illiteracy, power failure and lack of access to internet can be factors that lead to the reduced number of firms practising web marketing.

d) Marketing Method Practiced

The marketing method practised by firms is another measure to determine the level of e-marketing being practice by firms. Agricultural firms usually fall into ‘the early and late majority’ categories of adopter categories in the diffusion process of innovation, which are characterized by slow adoption of new technology because of scepticism (the scepticism is mostly due to fear of failure). Most of the time it takes the extra work of the agricultural extension agent to convince farmers to try a new method. E-marketing is no doubt an innovation in the marketing of agricultural product, but it was observed that most agribusiness firms in these study areas fall in the late majority of the adopter categories, who always approach an innovation with scepticism. It was observed that none of the respondents uses e-marketing alone as a form of marketing. The use of e-marketing only was a ‘dummy’ in the analysis of marketing method used. Most of the firms that practised e-marketing also practice traditional marketing as well. This might be due to scepticism about the innovation (e-marketing). 66.2% of the respondents practised both e-marketing and traditional marketing, while 33.8% uses only traditional form of marketing. Even though the firms know that e-marketing is a good form of marketing, they are still holding on to their old method of marketing. Table 4 shows the distribution of the marketing methods practised by firms.

3.2. Perceptions of the Agribusiness Firms to the Use of E-marketing

a) The Most Effective Form of Marketing

A section of the questionnaire was structured to enable agricultural firms to say which of the methods of marketing (E-marketing or traditional marketing) do they think is more effective in marketing their products. Table 5 shows that 71.8% of firms used traditional form of marketing, while 28.2% of the firms used e-marketing for marketing of their products. This implies that most firms in the study area prefer traditional marketing to e-marketing, this may be as a result of illiteracy, poor awareness about e-marketing, poor access to internet, poor coverage from mobile phone network provider, lack of technical know-how etc.

b) The Extent of Effectiveness of E-marketing in Firms

This study also tried to sample the view of firms that are into e-marketing, to determine the view of the firms on how effective is e-marketing. Table 6 shows that 45.1% of the firms agreed that e-marketing is strongly effective; 32.4% agreed that e-marketing is very strongly effective; 19.7% agreed that it is moderately effective; 2.8 % agreed that it is not effective. This 2.8% may fall into the laggard category of the adopter categories in innovation diffusion process, which are always the last to accept an innovation. However, it will be noted that the percentage of firms that agrees that it is effective, does not correspond with the percentage practising e-marketing, this may be as a result of scepticism as mentioned earlier even though they are aware of its effectiveness.

3.3. Benefits of E-marketing

The benefits of e-marketing were measured using a 4-point Likert rating scale was adopted. The 4-point scales were graded as follows: Strongly agree = 4, Agree = 3, Disagree = 2 and Strongly disagree = 1. Based on the grading, the benefits of e-marketing as seen in table 7 were ranked using weighted mean (\bar{x}). The mean score of respondents based on the 4-point Likert rating scale with a 2.5 cut off point. As presented in table 7 mean score below 2.5 were ranked as within the range of disagree, while those above 2.5 were ranked as within the range of agree.

From the result in table 7, it can be observed that, increase in customer, increase in production, increase in sales, cost effectiveness, time effectiveness, all as a result of e-marketing have an average weighted mean all above 2.5, which means that the respondents agree or strongly agree that e-marketing increases all these, mentioned in table 7. This was judged mostly by the use of phone that was common among the respondents.

3.4. Performance of Firms as they Age in E-marketing

Performance was judged based on total annual income. A multiple linear regression analysis was employed to determine if marketing method practised, duration of practice of e-marketing, number of firm units, educational qualification, number of employees, age of firm and ownership have an effect on the total annual income. The result of the analysis is presented in table 8.

The linear function is stated as follows:

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + e$$

Where:

Y = Total annual income

X₁ = Marketing method used by firm

X₂ = Duration of e-marketing practice

X₃ = Number of firm units

X₄ = Educational qualification

X₅ = Number of employees

X₆ = Age of firm

X₇ = Ownership

From the above regression result, R squared (R^2) value of 0.352 shows that 35.2% of the variations in the total annual income is accounted for by the variations in the seven included variables put together (X₁ – X₇).

Also, the F_{cal} of 4.884 at $prob>f$ of 0.000, shows that the entire regression is significant at 1% probability level.

The result shows that marketing method, duration of e-marketing, number of firm units, educational qualification, number of employees, age of firm have direct relationship with total annual income as indicated in the table above by the positive signs of their coefficient. While ownership has an inverse relationship with total annual income as indicated by the negative sign of its coefficient.

Most importantly, level of education was positive and significantly related to the dependent variable.

3.5. The E-marketing Channels and Agribusiness activities involved in E-marketing

Marketing channel is simply the path of product as it moves from the producers to the final consumers; marketing channel of agribusiness in the study was traced from the original source (producers) to the final target (consumer).

E-marketing channel commonly used include, phone, internet (website, e-mail, social media etc), radio, and television. Phone was observed to be common among the total respondents for contacting customers. E-marketing shortens the distance between manufacturer and the end user, also changed the structure of traditional market. Table 9 shows distribution of the various e-marketing channels used in product promotion by firms.

Table 9 shows that 53.5% of firms in the study area used phone for product promotion; 16.9% used others such as promo, banner, posters, door to door; 11.3% used website; 11.3% used radio; 4.2% used newspaper, and 2% used television. Phone was the most commonly used channel for product marketing, this may be as a result of phone being the easiest accessible form of e-marketing.

The distribution is clearly seen in figure 1.

E-marketing Channels

Various types of e-marketing channel were being used by respondents, but phone was seen to be common among the respondents.

Table 10 shows the various type of e-marketing used by respondents. 45.1% of them used phone together with other methods such as television, and radio, 29.6% used phone and internet, while 25.4% used phone only.

4. Summary, Conclusion and Recommendations

4.1. Summary

The aim of this study was to assess the use of e-marketing by agribusiness firms in southeastern Nigeria. The data were obtained from primary sources through well-structured questionnaire, observation and oral interviews. The broad objective was to assess the use of e-marketing by agribusiness firms in southeastern Nigeria. While the specific objectives were; to ascertain the extent of use of emarketing by agribusiness firm in south-east, to determine the perception of the agribusiness firms to the use of emarketing in their business; to ascertain the performance (output) of firms as they age in e-marketing; to describe the emarketing channels and agribusiness activities involved. The information collected was on socio-economic characteristics, communication technology used by firms, tools for storing information, product marketing on web, marketing method practised, preferred form of marketing, effectiveness of e-marketing, benefits of e-marketing, performance of firms, product promotion and e-marketing channels. The results were analysed using descriptive statistics, linear regression and Likert rating scale technique.

Problem of marketing is one of the major problems faced by the agricultural sector. Information technology tools have been tested and accepted widely and can be used to solve the problem of marketing faced by agribusiness firms. In this study, firms are yet to fully adopt e-marketing because they are yet to clearly see the potentials and enormous opportunity it will create.

E-marketing has not been fully adopted in south-east Nigeria, though phone was seen to be most acceptable form of e-marketing in south-east Nigeria, most of them are yet to adopt other forms of e-marketing. E-marketing when well practised can help reduce cost, reduce time, promote sales, improves sales and increase production generally.

4.2. Recommendations

In line with the findings of this study, it is recommended that:

- 1) There should be increased awareness of the effectiveness and benefits of e-marketing.
- 2) Government should help provide the necessary amenities (good network and internet facilities) that will make e-marketing easily accessible.
- 3) Agricultural extension agent should assist and educate agribusiness firms on the use of e-marketing
- 4) Finally, government and policy maker should promote the use of e-marketing in agricultural sector

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Tables and Figures

Table-1. Frequency Distribution of Respondents according to Communication Technology used by Firms

Communication Technology	Frequency	Percent
Phone	71	100.0

Source: Field survey, 2014

Table-2. Frequency Distribution of Respondents according to Tools for Storing Information

Tools for Storing Information	Frequency	Percent
Phone	11	15.5
Bookkeeping	22	31.0
Computer	37	52.1
Others	1	1.4
Total	71	100.0

Source: Field Survey, 2014

Table-3. Frequency Distribution of Respondents according to Product marketing on the web

Product marketing on Web	Frequency	Percent
Firm practising product marketing on web	22	31.0
Firms that do not practice web marketing	49	69.0
Total	71	100.0

Source: Field survey, 2014

Table-4. Frequency Distribution of Respondents according to marketing method practised by firms

Marketing method	Frequency	Percent
Traditional marketing	24	33.8
Both	47	66.2
Total	71	100.0

Source: Field survey, 2014

Table-5. Frequency Distribution of Respondents according to the Most Effective Form of Marketing

Effective Marketing forms	Frequency	Percent
E-marketing	20	28.2
Traditional marketing	51	71.8
Total	71	100

Table-6. Frequency Distribution of Respondents according to the Effectiveness of e-marketing

Effectiveness of e-marketing	Frequency	Percent
Not effective	2	2.8
Moderately effective	14	19.7
Strongly effective	32	45.1
Very strongly effective	23	32.4
Total	71	100.0

Source: Field survey, 2014

Table-7. Mean Distribution according to the Benefits of e-marketing

Benefits of e-marketing	Mean	Std. Deviation
E-marketing increases the number of customers	3.2958	0.61862
E-marketing increases production	2.9437	0.53150
E-marketing increase sales	3.0704	0.45744
E-marketing is cost effective	3.1127	0.49423
E-marketing is time effective	3.2254	0.42079

Source: Field survey, 2014

Table-8. Multiple Regression Analysis on the Effect of Marketing Method, Duration of e-Marketing, Number of Units, Educational Qualification, Number of Employees, Age of Firm and Ownership on the Total Annual Income.

Y	Coefficient	Standard error	t _{cal}	Level of Significance
(Constant)	0.012	0.571	0.021	
X ₁	0.027	0.190	0.142	NS
X ₂	0.067	0.073	0.918	NS
X ₃	0.209	0.126	1.659	NS
X ₄	0.651	0.162	4.029*	S
X ₅	0.066	0.195	0.339	NS
X ₆	0.061	0.140	0.437	NS
X ₇	-0.164	0.308	0.532	NS

*Variable significant at 5% probability level

F_{cal} = 4.884

R² = 0.352

Adjusted R² = 0.280

Table-9. Frequency Distribution of Respondents according to Product Promotion Channel

Product promotion channel	Frequency	Percent
Internet	8	11.3
Phone	38	53.5
Newspaper	3	4.2
Television	2	2.8
Radio	8	11.3
Others	12	16.9
Total of Products	71	100.0

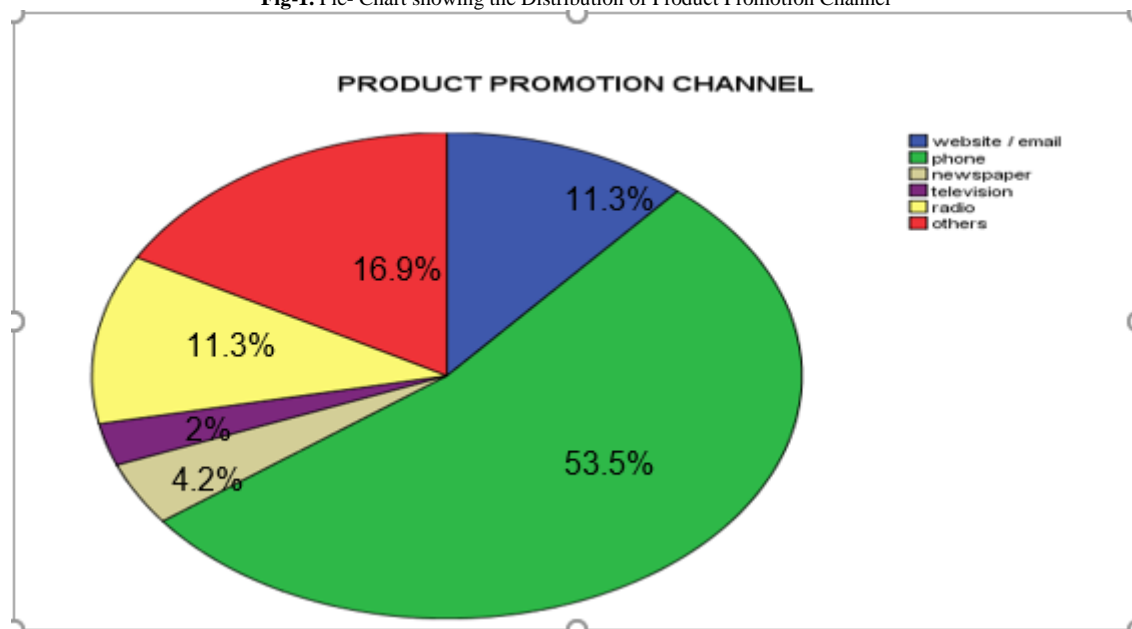
Source: Field survey, 2014

Table-10. Frequency Distribution of Respondents according to E-marketing channels used by Firms

E-Marketing Channel	Frequency	Percent
Phone & Internet	21	29.6
Phone only	18	25.4
Phone and others	32	45.1
Total	71	100.0

Source: Field survey, 2014

Fig-1. Pie- Chart showing the Distribution of Product Promotion Channel



Source: Field Survey, 2014