

Original Article

Level of Awareness and Utilization of Digital Marketing Channels Among Arable Crop Farmers in Surulere Local Government Area, Oyo State, Nigeria

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Abstract: Agricultural marketing entails all the services required to transport farm produce from the farm gate to the point of final consumption. Over the years, agricultural marketing has had a high level of sophistication. Information Communication Technology has interfered with how the marketing of agricultural produce is structured. This has closed the distance between producers and consumers of agricultural produce globally. This study examined the Level of Awareness and Utilization of Digital Marketing Channels for Agricultural Produce among arable Crop Farmers in Surulere Local Government, Oyo State, Nigeria. A multi-stage sampling technique was employed to select seventy-five (75) Respondents, and data were collected through the use of a well-structured interview schedule. Data collected were analyzed through the use of descriptive and inferential statistical tools such as frequency counts, percentages, mean and Chi-Square. The study revealed that the majority (74.7%) of the Respondents are youths who are mostly (80%) male farmers. It was observed that radio (100%), mobile phone (97.3%) and television (86.7%) were the most available digital marketing channels. Invariably, Respondents have a high awareness level of usage of Radio, Television and Mobile phones with a Weighted Mean Score- of 1.96, 1.79, and 1.76, respectively. Digital marketing channels such as email and online video marketing, and pay-per-click advertising (Weighted Mean Score- 0.12) had a low level of awareness among respondents. The study established that level of educational attainment, access to digital tools, membership in farmers' organizations and availability of internet facilities are major factors influencing the utilization of digital marketing channels. At the same time, government policies and regulations and the nature of prospective customers were the least factors influencing the utilization of digital marketing channels. The result also indicated that the cost of procuring gadgets, distrust of vendors, lack of technical know-how, inefficient market information, and lack of awareness of common platforms for farmers' use were the major constraints encountered in the utilization of digital marketing channels. The study recommended that Extension Agents should create a community of digital marketing channels Users to enhance awareness of digital marketing and also give adequate training to farmers about digital marketing tools and techniques to create new markets for agricultural produce to tame the physical distance barrier recently created by the global pandemic.

Keywords: Awareness, Digital Marketing Channels, Arable Crops, Utilization, Adoption, Assessment.

I. INTRODUCTION

The recent global pandemic that ravaged the world has created a "new normal" whereby transactions are carried out with some level of digitalization to tame physical contacts as goods and services are exchanged for cash. The farmer who mostly resides in the hinterlands expects payment when their produce leaves their possession; hence some financial arrangements must be made to cover all the various stages until the retailer of agricultural produce passes the produce to the final consumer (Asogwa and Okwoche, 2012). For farming businesses to succeed under the current level of digitalization and sophistication, there must be a merger of online and conventional interaction methods between the farmer and the market structure (Foltean F.S 2019). Kun-Huang Huarng et al. (2021) opined that an efficient marketing structure does not merely connect buyers to sellers and react to supply and demand forces; it also has a dynamic role to play in stimulating output, consumption patterns and the essential of macro-economic developments. Marketing of agricultural produce considers four major elements to make the marketing process more effective (Nair, 2011). These elements include product, price, promotion and place. Product and place are more important due to the perishable nature of some agricultural produce. Digital marketing entails using technologies to help marketing activities improve customer knowledge about a farm product to facilitate consumers to make an informed decision about the product to be purchased. Digital marketing saves the challenges associated with time, distance and flexibility of payment options.



The broad objective of this study was to assess the level of awareness and utilization of Digital Marketing Channels by arable Crop farmers in Surulere Local Government, Oyo State, Nigeria.

However, the specific objectives are to:

1. Describe the socioeconomic characteristics of farmers in the study area.
2. Identify the digital marketing channels available in the study area.
3. Examine the level of farmers' awareness of digital marketing in the study area.
4. Assess the extent of factors that influence the utilization of digital marketing among farmers in the study area.
5. Assess the severity of constraints in using digital marketing for agricultural produce.

A) Hypothesis of the Study

Based on the stated objectives of the study, the following hypothesis was tested.

Ho₁: There is no significant relationship between the socioeconomic characteristics of respondents and their level of awareness of digital marketing practices of agricultural produce.

II. METHODOLOGY

A multi-stage sampling technique was employed in selecting Respondents. The first stage involved the purposive selection of 30% of wards based on the availability of mobile network services in the Surulere Local Government Area. The selected wards include Igbon/Gambari Ward, Baya Oje Ward and Iresaapa Ward. In the second stage, a community was randomly selected from each of the three (3) wards (Gambari, Ajase, Onipaanu), giving a total of three farming communities from across the study area. The final stage involved randomly selecting 34% of registered arable crop farmers in the selected communities. Consequently, 25 respondents were selected in Gambari, 28 were selected from Ajase, and 22 were selected from Onipaanu. By this, a total of 75 respondents were selected for the study.

Table 1: Sample Frame for the Study

Wards in Surulere Local Government	Selected Wards and Communities	Number of Registered Arable Farmers in the Selected Community	No of the Respondents (34% from each Community)
Baya-Oje, Igbon/Gambari, Iresaadu(Iresaapa), Iresaadu(Arolu), Iresaadu (Iresaadu), Iresaadu (Iregba), Iwofin, Okofin, Oko (Ilaje), Okofin (Mayin)	Igbon/Gambari: Gambari.	75	25
	Baya-Oje: Ajase	82	28
	Iresaapa: Onipaanu	64	22
			Total: 75

Source: Field Survey 2023

III. RESULT AND DISCUSSION

A) Socioeconomic Characteristics of Respondents

The result in Table 2 shows that 74.7 % of the respondents were less than or equal to 50 years of age, and 25.3% were 50 years and above. This result implies that more youths are involved with digital marketing than the older generation; this corroborates Gianluca Vagnani and Corrado Gatti (2019), who reiterated a strong nexus between youthfulness and the adoption of innovation.

The result indicated that the majority (80.0%) of the respondents were male while 20.0% were female; this may be a possible consequence of the fact that the male, mostly the Heads of households in the study area, have a higher propensity of being in possession of production assets than their female counterpart. Results further revealed that 84.0% of the respondents were educated at different levels, while 16.0% had no formal education. The percentage of educated Respondent juxtapose the impact of literacy on the rate of adoption, as posited by Craig Riddell and Xueda Song (2012)

The result further revealed that 40.0% of the respondents had less than or equal to 20 years of farming experience, and 60.0% had more than 21 years of farming experience. The mean year of the farming experience was 25 years. The result also revealed that 44.1% of the respondents cultivate at least 20 acres of farmland, while 55.9% of the respondents cultivate above 21 acres of farmland. The result further revealed the majority (86.7%) of the respondents belong to one or more social organizations, while 13.3% do not identify with any social organization. Belonging to the social organization (for example,

farmers' cooperatives and the like) could avail the farmers of the right network and information needed for the utilization of digital marketing channels, thereby enhancing their adoption of digital marketing innovation.

Also, the result indicated 96.0% of respondents have access to mobile phones, while 4.0% of respondents have no direct access to mobile phones. This means that a larger portion of the respondents have access to mobile phones which is a factor that influences the utilization of digital marketing channels.

Table 2: Distribution of Respondents by Socioeconomic Characteristics

Characteristics	Frequency	Percentage	Mean
Age			
≤50	56	74.7	50years
≥ 51	19	25.3	
Sex			
Male	60	80	
Female	15	20	
Marital status			
Married	71	94.7	
Unmarried	4	5.3	
Household size			
≤5	35	47	6
6-10	36	48	
>11	4	5	
Level of Education			
No formal Education	12	16.0	
Educated	63	84.0	
Years of experience in farming			
≤20	30	40.0	26years
≥21	45	60.0	
Farm size			
≤ 20	33	44.1	
≥ 21	42	55.9	
Membership in social organization			
Yes	65	86.7	
No	10	13.3	
Access to mobile phone usage			
Yes	72	96.0	
No	3	4.0	

Source: Field survey, 2023

B) Availability of Digital Marketing Channels

According to the result, all (100.0%) of the respondents indicated radio as an available digital marketing channel, 86.7% of the respondents indicated television, 22.7% of the respondents indicated search engine, 97.3% of the respondents indicated mobile phone, 37.3% of the respondents indicated internet access, 64.0% of the respondents indicated social media platform, 17.3% of the respondents indicated video marketing, 8.0% of the respondents indicated email marketing, 4.0% of the respondents indicated pay-per-click advertising and 10.7% of the respondents indicated influencer marketing as the available digital marketing channels for marketing of agricultural produce. The results show that varieties of digital marketing channels are available to the respondents sampled. Still, radio was mostly available, which could be a result of its accessibility and affordability.

Table 3: Distribution of Respondents by Availability Digital Marketing Channels

Digital marketing channels	Frequency	Percentage
Radio	75	100
Television	65	86.7
Search Engine	17	22.7
Mobile phone	73	97.3
Internet Access	28	37.3

Social media platforms	48	64.0
Video Marketing	13	17.3
Email Marketing	6	8.0
Pay-Per-Click advertising	3	4.0
Influencer Marketing	8	10.7

Source: Field survey 2023.

C) Level of Awareness of Farmers on Digital Marketing Channels

The result on the level of awareness of digital marketing channels, which was obtained using three rating scales of highly aware, moderately aware and not aware, revealed that radio ranked 1st with weighted mean score of (1.96), television ranked 2nd, mobile phone ranked 3rd with weighted mean score of (1.76), social media platform ranked 4th, internet access ranked 5th, video marketing ranked 6th, search engine ranked 7th, email marketing ranked 8th, influencer marketing ranked 9th and pay-per-click advertising ranked 10th with weighted mean score of (0.12). This result indicates that radio has the highest level of awareness, and pay-per-click advertising has the least level of awareness among the available digital marketing channels in the study area.

Table 4: Distribution of Respondents by Level of Awareness of Farmers on Digital Marketing Channels

Available Digital marketing channels	Highly aware	Moderately aware	Not aware	WMS	Rank
Radio	72(96.0)	3(4.0)	-	1.96	1 st
Television	61(81.3)	12(16.0)	2(2.7)	1.79	2 nd
Mobile phone	60(80)	12(16)	3(4.0)	1.76	3 rd
Social Media Platform	22(29.3)	39(52.0)	14(18.7)	1.11	4 th
Internet Access	19(25.3)	27(36.0)	29(38.7)	0.87	5 th
Video Marketing	9(12.0)	16(21.3)	50(66.7)	0.45	6 th
Search Engine	9(12.0)	13(17.3)	53(10.7)	0.41	7 th
Email Marketing	2(2.7)	16(21.3)	57(76.0)	0.27	8 th
Influencer Marketing	2(2.7)	11(14.7)	62(82.7)	0.20	9 th
Pay-Per-Click advertising	9(12.0)	65(86.7)	1(1.3)	0.12	10 th

Source: Field survey 2023.

WMS=Weighted Mean Score.

Figures in parentheses are percentages.

D) Assessment of Extent of Factors Influencing Utilization of Digital Marketing Channels

The study assessed the extent of factors influencing the utilization of digital marketing channels among arable crop farmers. The result indicated the level of educational attainment and access to digital tools, with a weighted mean score of 1.8, as the most influential factors for the utilization of digital marketing channels among Respondents. Also, the availability of internet facilities rated second (wms1.7), extent of social networking and membership of farmers' organizations with a weighted mean score of 1.6 paired as third most influencing factor by Respondents. Conversely, the nature and types of prospective customers and government policy and regulations are the least influential factors in utilizing digital marketing channels.

Table 5: Distribution of Respondents by Extent of Factors that Influence Utilization of Digital Marketing Channels

Available Digital marketing channels	High Influence	Moderate Influence	No Influence	WMS	Rank
Level of Education	67(89.3)	5(6.7)	3(4.0)	1.8	1 st
Availability of Internet Facility	59(78.7)	11(14.7)	5(6.7)	1.7	2 nd
Extent of Social Networking	51(68.0)	15(20.0)	9(12.0)	1.6	3 rd
Quality of Product	42(56.0)	19(25.3)	14(18.7)	1.4	4 th
Membership in Farmers' Organization	53(25.3)	12(16.0)	10(38.7)	1.6	3 th
Access to Digital Tools	60(80.0)	12(16.0)	3(4.0)	1.8	1 th
Extent of Interaction with Extension Agent	42(56.0)	20(26.7)	13(17.3)	1.4	5 th

Availability of Online Marketing Platform	44(58.7)	25(33.3)	6(8.0)	1.5	4 th
Nature of Prospective Customers	12(16.0)	44(58.7)	19(25.3)	0.9	7 th
Government Policy	16(21.3)	45(60.0)	14(18.7)	1.1	6 th

Source: Field survey, 2023

E) Severity of Constraints to the Usage of Digital Marketing Channels by Arable Crop Farmers

The results revealed; the cost of procurement of digital gadgets ranked 1st with a weighted mean score of (1.87), distrust of vendors and lack of technical know-how ranked 2nd with a weighted mean score of (1.71), inefficient market information and lack of awareness on common platforms for farmers use ranked 3rd with a weighted mean score of (1.69), perishability of farm produce ranked 4th with a weighted mean score of (1.68), fluctuating network services ranked 5th with a weighted mean score of (1.63), erratic power supply ranked 6th with a weighted mean score of (1.51), budget limitation ranked 7th with a weighted mean score of (1.49) while hacking of digital platform ranked 8th with weighted mean score of (1.37). This implies that the cost of procuring gadgets and distrust of vendors, inefficient market information, lack of awareness on common platforms for farmers' use, and perishability of farm produce were the major constraints to the utilization of digital marketing channels by the respondents in the study area. This implies that respondents were faced with numerous constraints, thereby limiting their extensive use of digital marketing channels.

Table 6: Distribution of Respondents by Constraints to the Utilization of Digital Marketing Channels

Constraints	Very Severe	Mildly Severe	Not Severe	Wms	Rank
Cost of procuring gadgets	67(89.3)	6(8.0)	2(2.7)	1.87	1 st
Distrust of Vendors	55(73.3)	18(24.0)	2(2.7)	1.71	2 nd
Lack of technical know-how	60(80.0)	8(10.7)	7(9.3)	1.71	2 nd
Inefficient market information	54(72)	19(25.3)	2(2.7)	1.69	3 rd
Lack of awareness on common platforms for farmers use	56(74.7)	15(20.0)	4(5.3)	1.69	3 rd
Perishability of farm produce	54(72.0)	18(24.0)	3(4.0)	1.68	4 th
Fluctuating services	53(70.7)	16(21.3)	6(8.0)	1.63	5 th
Erratic power supply	44(58.7)	25(33.3)	6(8.0)	1.51	6 th
Budget limitation	46(61.3)	20(26.7)	9(12.0)	1.49	7 th
Hacking of digital platform	45(60.0)	13(17.3)	17(22.7)	1.37	8 th

Source: Field survey 2023.

WMS=Weighted Mean Score.

Figures in parentheses are percentages.

F) Test of Hypothesis

Ho: The null hypothesis stated that there is no significant relationship between the socioeconomic characteristics of respondents and their level of utilization of digital marketing channels for agricultural produce.

The result of the analysis revealed that there is significant relationship between socioeconomic characteristics of religion ($\chi^2=34.467c$, $p\leq 0.000$), marital status ($\chi^2=151.267c$, $p<0.000$), primary occupation ($\chi^2=26.667e$, $p\leq 0.000$), membership of association ($\chi^2= 60.356g$, $p<0.003$), access to mobile phone ($\chi^2=42.889f$, $p<0.000$) and the level of awareness and utilization of digital marketing channels for agricultural produce in the study area. Therefore the null hypothesis was rejected.

Table 7: Chi-Square Analysis showing the Relationship between the Socioeconomic Characteristics of the Respondents and the Level of Awareness of Digital Marketing.

Variable	X ²	P value	DF	Remarks	Decision
Sex	34.689	0.254	30	NS	Accept Ho
Religion	35.467	0.000	2	S	Reject Ho
Marital status	151.267	0.000	2	S	Reject Ho
Primary occupation	26.667	0.000	4	S	Reject Ho
Membership of association	60.356	0.003	33	S	Reject Ho
Access to mobile phone	42.889	0.000	3	8	Reject Ho

Source: Field Survey, 2023

IV. CONCLUSION

Arising from the global pandemic that ravaged the world, keeping the entire globe at a standstill, a 'new normal' was devised to achieve the purpose. The exchange of farm produce for cash became a challenge; hence a new marketing arrangement was devised for marketing agricultural produce. With the high level of sophistication and digitalization leveraging Information Communication Technology and Artificial Intelligence, this study assessed the level of awareness and utilization of digital marketing channels in marketing agricultural produce. Based on the empirical evidence from the study's findings, it was revealed that most of the respondents are youthful males (80.0%) who are mostly (84%) educated, cultivating reasonably large acres of farmland with adequate access to mobile phone usage. The respondents identified Radio, Television and Mobile Telephone as mostly utilized digital marketing channels. The level of education among the respondents, access to internet facilities, access to digital marketing tools, quality of farm produce and extent of social networking are some factors identified to influence the utilization of digital channels for marketing agricultural produce. The study further revealed the cost of procurement of digital marketing channels, the distrust of the vendors, fluctuating network services, hacking of digital platforms and erratic power supply are some of the constraints identified as challenges to the utilization of digital marketing platforms for marketing of agricultural produce in the study area. The study revealed a significant relationship between some of the socioeconomic characteristics of Respondents and the level of awareness and utilization of digital marketing channels for agricultural produce. The study recommended creating a digital marketing community among respondents to exchange marketing information, contacts and networking.

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