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Availability and Utilization of Digital Marketing Tools among Fresh African Catfish Marketers in Omambala Region of Anambra State, Nigeria https://dx.doi.org/10.4314/jae.v26i2.7

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Abstract

This study examined the availability and utilization of digital marketing tools among fresh African catfish marketers in Omambala region of Anambra State, Nigeria. Frequency count, percentage, mean score and multiple regression analysis were used to analyze the data collected from 120 respondents. Social media marketing (84.2%), video/YouTube marketing (79.2%), websites (71.7%) and mobile applications (55.0%) were the digital marketing tools available to them in the study area. Perceived benefits of digital marketing included easy access to unlimited geographical location and information, its less expensive nature, convenient store hours, and increased customer base, sales, and profit. Level of utilization of digital marketing tools amongst the fresh African catfish marketers showed that there were high levels of utilization of social media marketing, video/YouTube marketing, Mobile applications, and websites, with social media marketing being the most utilized. High cost of mobile phones and laptops, inadequate

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operating capital, poor power supply, computer literacy, huge advertisement and internet subscription cost, limited access to internet, and lack of awareness were the identified constraints to the marketers' utilization of digital marketing strategies. Age of the marketers had negative effect on their level of utilization of digital marketing tools, while educational qualification, marketing experience and availability of fund had positive effect on the marketer's level of utilization of digital marketing tools. Fresh African catfish marketing is a source of livelihood in the study area and the marketers utilize some digital marketing tools. Fresh African catfish marketers be given financial support, and more awareness created on other digital marketing tools for increased income and livelihood.

Keywords: Digital marketing of fresh fish, fresh catfish in Omambala

Introduction

Marketing is recognized as a key component of fish production, with the production process said to be completed after the fish reaches the final consumers. Marketing refers to the totality of the activities involved in creating, communicating, delivering, and exchanging goods and services that have value for customers, clients, partners, and society at large (American Marketing Association, 2022). According to Alexandra, Amy and Ariel (2021), marketing involves a chain of activities, considering the nature of the within and between sectorial relationships existing along the value chains from production to consumption, these activities range from adverts, selling of products, and delivering products to consumers. With the high volume of trades in fish and fishery products globally, fish production represents a critical part of the marketing process particularly, in Nigeria, where it provides a means of livelihood and income generation to a huge part of the population (Okeke and Nwoye, 2019). Thus, the need to develop and maintain a sustainable linkage between the marketing chain and industry players cannot be overemphasized as it enhances the availability of fish and fishery products. In line with this therefore, it is pertinent to explore and deploy various kinds of efficient marketing tools which have proven beneficial over the years.

The internet as a virtual shop is considered one of the emerging innovative markets that is fast developing and driven by technological advancements (Kaartem and Nystrom, 2021). Online fish marketing provides fresh and safe fish products, which gives it an edge over other fish retail outlets (Sajeev, 2021). More so, following the rising popularity of e-grocery and the advent of cheaper freezing technologies, there has also been a concomitant progressive increase in e-commerce fish marketplaces, which offers good online presence and opportunities to a greater fresh Africa catfish marketer. Thus, optimally engaging the digital marketing platforms such as the social media tools/ platforms for increased sales and contributing more to the nation's economy. However, achieving a sustainable online presence in other to increase sales will require the development and adoption of the available, convenient and efficient digital marketing tools such as social media applications and websites, for adequate support and closing the gap between consumers' needs and demands. This will ensure that marketers' efforts are better targeted and directed at the consumers. Generally, the utilization of digital marketing tools in the marketplace by users has proven to be a viable and efficient means for marketing their products for improved rate of returns and more rapid sales of their perishable goods (Deng, 2020).

As noted by Greg (2017), agricultural producers are faced with numerous challenges such as low commodity price; which middlemen usually capitalize on by forcing the producers to sell at low prices and thus, leaving the farmers or producers with little or no profit. In an attempt to make

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extra profits, these middlemen are known to add huge amounts to the prices of these agro produce and, thus eventually increasing their final cost. However, with the proliferation of internet access and increasing computer literacy, digital marketing could help these agricultural producers control the prices of their produce, have a wider customer reach, get higher prices for their products and make reasonable profit. Additionally, the final consumers are more assured of higher quality buys for better prices as the cost of the middlemen are scrapped or made minimal in the digital marketing system (Reddy, 2021). On the part of the consumers, time and accessibility of products are of utmost importance. The freedom to choose fish products at a time and price of their convenience, while sitting at home or engaged in other activities, and the luxury of getting it delivered fresh to any location of their choice has made this new market space an attractive trading site.

Further, online marketing helps the poor rural catfish farmers and marketers who are struggling to enter the market or deliver their produce to consumers with minimal middlemen interference (Shyam, Harsha, Athira, Smitha, Shinu and Mohammed, 2018). Regardless, it is worthy to note that potentials of the aquaculture and fisheries industry to contribute towards a sustainable agricultural productivity has remained unexploited as little or no attention is being paid to this sector. On the other hand, however, the benefit of online marketing is currently being enjoyed by several fish farming and marketing businesses. According to Ajiboye, Osundare, Oluwatusin, Toluwase and Amao (2020), despite the popularity of fresh fish marketing in Nigeria, online fresh catfish marketing can be best described as being at the infant stage when compared to the larger market potentials created for it.

Therefore, it is justifiable to say that online fresh catfish marketing in Nigeria is an untapped goldmine, considering an ever increasing need to enhance its market share, as well as the marketer's return on investment. Hence, the need to assess the availability and utilization of digital marketing tools among fresh African catfish marketers in Omambala region of Anambra State. The study was designed to:

- i. identify the various digital marketing tools available in the study area;
- ii. ascertain the benefits of digital marketing tools among the fresh catfish marketers;
- iii. determine the level of utilization of the digital marketing tools in the study area; and
- iv. identify constraints to utilization of digital marketing tools among the respondents.

Hypothesis of the study

There was no significant relationship between the socio-economic profile of the fresh African catfish marketers and their level of utilization of the digital marketing tools.

Methodology

The study was conducted in Omambala region of Anambra State, Nigeria. The region comprises Anambra East (between longitudes 6°16' and 0.01"North; latitudes 6°49' and 0.01" E), Anambra West (between latitude 10°5° N and longitude 15°5° E), Ayamelum (latitude 5°36' and 6°18' North; longitude 7°24' and 8°27') and Oyi (Latitude 5° and 7°N and Longitude 6° and 7°E), Local Government Areas. The population of the study comprised of fresh African catfish marketers who live and market fresh catfish in the Omambala region. Multi-stage sampling procedure involving purposive and simple random sampling techniques was used in selecting 120 fresh African catfish marketers that were used in the study. In stage I, there was purposive selection of three local government areas which were selected on the basis of water bodies and activities fresh catfish farming in the areas, namely, Ayamelum, Anambra East and Anambra

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West. Stage II involved a purposive selection of two communities that are notable for fresh African catfish production and marketing in the region. The communities include: Nzam and Anam in Anambra West; Aguleri and Umueri in Anambra East; Anaku and Ifite-Ogwari in Ayamelum, all in Omambala region of Anambra State. Finally, stage III involved a random sampling selection of 20 fresh African catfish marketers from each of the six communities, giving a total of 120 respondents that were used for the study. Primary data were used in the study while data collected were analysed using descriptive (frequency, percentages and mean scores) and inferential (multiple regression) statistics.

Results and Discussion

Types of Digital Marketing Tools Available

The various types of digital marketing tools available to the marketers in the area are displayed on Table 1. Findings of the study indicate that social media marketing app (84.2%), video /YouTube marketing (79.2%), websites (71.7%) and mobile applications (55.0%) were the major digital marketing tools available in the study area. As many as 84.2% of the catfish marketers indicated that social media marketing is available. The fresh African catfish marketers, due to their level of education, were conversant with these digital marketing tools, especially social media marketing. The popularity and availability of the social media marketing tools among the fresh African catfish farmers can be attributed to the capability of social media in changing the marketing landscape. Also, social media tools provide marketers with improved ways of marketing that enable users to engage with existing customers and reach new ones while allowing them to promote their desired culture, mission, or tone.

Table 1: Types of digital marketing tools available

Digital marketing strategies	Percentage (%)
	Yes
Social Media marketing	84.2*
Video/YouTube marketing	79.2*
Websites	71.7*
Mobile Applications	55.0*
Search Engine Optimization (SEO)	24.2
E-mail Marketing	10.8
Pay Per Click (PPC)	06.7

Source: Field survey, 2021.

Perceived Benefits of Digital Marketing Tools among Fresh African catfish Marketers

The marketers' perception of the benefits of using various digital marketing tools available to them differs. However, Table 2 reveals that the perceived benefits, in order of hierarchy, include: Access to unlimited geographical location (\bar{x} =3.80), less expensive nature of digital marketing (\bar{x} =3.76), its accessibility (\bar{x} =3.16), convenient store hours (\bar{x} =2.95), easy access to information (\bar{x} =2.90), increased customer base (\bar{x} =2.88), increased sales (\bar{x} =2.74), and increase in profit (\bar{x} =2.51). The result of the analysis is an indication that the marketers perceive digital marketing as beneficial to business. The result of the analysis is in agreement with the findings of Sherpaw,

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Muhsenullah, and Farhad (2022) that unlimited access and access to information were the perceived benefits of social media tools, especially in agricultural sector.

Table 2: Perceived benefits of digital marketing tools

Benefits of digital marketing tools	Mean (\overline{x}) score
Access to unlimited geographical location	3.80*
Less expensive	3.76*
Accessibility	3.16*
Convenient store hours	2.95*
Access to information	2.90*
Increased customer base	2.88*
Increased sales	2.74*
Increase in profit	2.51*
Satisfaction	2.35
Provision for customized products	2.27

Source: Field survey, 2021.

Level of Utilization of Digital Marketing Tools among the Marketers

Findings on the level of utilization of digital marketing tools amongst the fresh African catfish marketers is shown in Table 3. The result reveals that there were high levels of utilization of social media marketing, video/YouTube marketing, Mobile apps and websites by the marketers. Social media marketing is the most utilized. As shown in Table 3, 56.70%, 48.33%, 45.00% and 35.80% of the marketers utilized social media marketing, video/YouTube marketing, Mobile apps and websites, respectively, to a great extent. This further affirms the marketers' perception of digital marketing tools as beneficial to business. As expected, Search Engine Optimization (SEO), E-mail Marketing, and Pay Per Click (PPC) had low level of utilization amongst the marketers because these tools were noted as unavailable digital marketing tools in the study area. Thus, as result of their unavailability, there was low level of utilization of these tools amongst the fresh African catfish marketers in the region. The finding agrees with the finding of Yogesh, Elvira, Laurie, Jamie, Raffaele, Jenna, *et al* (2021) who indicated that so many companies and individuals make use of numerous social media platforms such as Facebook for social media/online marketing.

Table 3: Fresh catfish marketers' utilization of digital marketing tools available

Digital marketing tools	Mean (\overline{x}) score	
Social Media Marketing	3.19*	
Video/YouTube Marketing	3.01*	
Mobile Apps	2.85*	
Websites	2.70*	
Search Engine Optimization	2.41	
E-mail Marketing	2.26	
Pay Per Click (PPC)	1.96	

Source: Field survey, 2021.

^{* &}gt; 2.5 = Beneficial

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Constraints to Utilization of digital marketing tools among the marketers

Table 4 shows the constraints to the marketers' utilization of digital marketing tools, and in the order of severity, include high cost of phones and laptop (\bar{x} =3.78), inadequate operating capital (\bar{x} =3.54), poor power supply (\bar{x} =3.09), computer literacy (\bar{x} =2.98), huge advertisement cost (\bar{x} =2.81), high cost of internet subscription (\bar{x} =2.71), limited access to internet (\bar{x} =2.66), and lack of awareness (\bar{x} =2.56). These major constraints have to do with costs/finance. Findings further buttresses the fact that lack of finance is the underlying constraint to utilization of digital marketing tools among marketers. On the other hand, Ogbeide-Osaretin and Ebhote (2020), attributed these constraints to the fact that access to infrastructures such as electricity are usually very poor in rural areas where agriculture activities are predominant, and these are needed for effective digital marketing. Unavailability of internet, low patronage and unavailability of fresh catfish were minor constraints. Ike-Obasi (2021) likewise identified lack of capital as the most critical constraint to fish marketing. Lack of awareness is another major constraint to proper usage of digital marketing. Ejiogu-Okereke, Chikaire, Ogueri, and Chikezie, (2016) opined that catfish marketers do not have enough access and knowledge of the ICTs, especially the modern ones which will make them exploit the potentials embedded in the use.

Table 4: Fresh African catfish marketers' constraints to utilization of digital marketing tools

Constraints	Mean (\$\overline{x}\$) score
High cost of phones and laptop	3.78*
Inadequate operating capital	3.54*
Poor power supply	3.09*
Computer literacy	2.98*
Huge advertisement cost	2.81*
High cost of internet subscription	2.71*
Limited access to internet	2.66*
Lack of awareness	2.56*
Unavailability of internet	2.48
Low patronage	2.19
Unavailability of fresh catfish	2.03

Source: Field survey, 2021.

Decision Rule: $\geq 2.5 = *$ Major constraint

Relationship between Marketers' socioeconomic characteristics and their level of utilization of digital marketing tools.

The relationship between marketers' socio-economic characteristics and their level of utilization of digital marketing strategies was identified using multiple regression analysis as displayed in Table 5. The value of R² which is 0.77 indicates that the listed socioeconomic variables (jointly) can explain up to 77% of the variations in the marketers' level of utilization of digital marketing strategies. The overall significance of the regression analysis is ascertained by the significance of

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the F statistic. The results clearly reveal that out of the seven variables examined, four variables – age, educational qualification, marketing experience and availability of fund were significant. However, while age of the fresh catfish marketers had negative effect on their level of utilization of digital marketing strategies, educational qualification, marketing experience and availability of fund had positive effect.

As shown in Table 5, for every one-year increase in the age of the marketers there was a 0.126 reduction in their level of utilization of digital marketing strategies. In essence, the older the marketer, the lower the level of utilization of digital marketing tools. An explanation to this could be that older people seem to find it difficult to flow with the computer age. In fact, the younger generations are more conversant with the social media and other digital tools. The educational level of the fresh catfish marketers had positive effect on their level of utilization of digital marketing strategies. Thus, for every extra year spent in acquiring education, the level of utilization of digital marketing tools increased by 0.238. This means that the more years a catfish marketer spent in school, the higher the level of utilization of digital marketing strategies. Hence, this is to say that education exposes one to many things. Moreover, ability to read, write, understand and communicate are all necessary in the utilization of digital marketing tools. Ogbeide-Osaretin, and Ebhote (2020) concluded that digital marketing requires an educational level beyond the primary level. Hence, the more educated a marketer is, the more he or she gets exposed to innovations, flow with the trend of events, and desire to be known and connected with people. This brings about an increase the marketers' level of utilization of digital marketing strategies.

The marketing experience of the farmers also had a positive effect on their level of utilization of digital marketing strategies. That is for each extra year spent marketing fresh catfish, the level of utilization of digital marketing strategies increases by 1.328. Hence, it is expected that as marketers spend more years selling fresh catfish, their level of utilization of digital marketing strategies will also increase. This finding can be explained by the fact that marketers who had been in the enterprise longer than others must have known the strengths, weaknesses, opportunities and threats in the enterprise, and hence must have devised more means of dealing with each. Availability of fund had a positive effect on level of utilization of digital marketing strategies. The results of this study reveal that the level of utilization of digital marketing strategies for marketers who had easy access to fund is 1.732 higher than that for those that had limited available funds.

Table 5: Relationship between marketers' socio-economic characteristics and their level of utilization of digital marketing tools

Variable	Coefficient	Std error	T
Constant	2.338	0.881	2.654*
Age	-0.126	0.052	-2.430**
Gender	-0.700	3.630	-0.193
Marital status	-2.284	1.735	-1.316
Educational qualification	0.238	0.091	2.614*
Household size	0.170	1.661	0.102
Marketing experience	1.328	0.337	3.941*
Availability of fund	1.732	0.533	4.035*

Source: Field survey, 2021.

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* $P \le 0.05$, R = 0.877, $R^2 = 0.769$, $\bar{R}^2 = 0.676$.

Conclusions and recommendations

Fresh African catfish marketing in the area is a source of livelihood engaged by many who live in the area. The catfish marketers are educated, experienced in the enterprise and utilize some digital marketing tools available. Financial support should be given to them by government, and more awareness created on the importance of these digital marketing strategies. This will go a long way to improve sales and income generation for the marketers, and ultimately improving the economy and quality of life in the rural areas.

References

- Ajiboye, A., Osundare, F.O., Oluwatusin, F.M., Toluwase, S.O.W & Amao, S.A. (2020). Analysis of technical efficiency of catfish production in Ekiti State of Nigeria. *International Journal of Innovative Research and Development*, 9(5), 1-6.
- Alexandra, T., Amy, D., & Ariel, C. (2021). *What is marketing?* Investopedia. https://www.investopedia.com/terms/m/marketing.asp
- American Marketing Association (2022). *Definitions of marketing*. https://www.ama.org/the-definition-of-marketing-what-is-marketing/
- Deng G. T. (2020). Assessment of factors affecting fish production and marketing in Gambella Region, Ethiopia. *The Scientific World Journal*, 2020(5260693), 1 8.
- Ejiogu-Okereke, E.N; Chikaire, U.J; Ogueri, I.E; & Chikezie, P.N (2016). Roles of Information and Communications Technologies in improving fish farming and production in Rivers State, Nigeria. (2016). Library Philosophy and Practice (e-journal). 1445.
- Greg, G. (2017). *Top five challenges and opportunities facing agricultural producers today*. The Paulsen. https://www.paulsen.agency/insights/articles/top-five-challenges-and-opportunities-facing-ag-producers-today
- Ike-Obasi, J.C. (2021). Assessment of catfish marketing approach in Obio Akpor Local Government of Rivers State, Nigeria. *Journal of Agriculture Research and Life Sciences*, 2(3), 96 101.
- Kaartem, V. & Nystrom, A. (2021). Emerging technology as a platform for markt shaping and innovation. *Journal of Business Research*, 124(1), 456 465.
- Ogbeide-Osaretin, E. N. & Ebhote, O. (2020). Does digital marketing enhance rural agricultural transformation in Nigeria? An empirical investigation. *Asian Journal of Agriculture and Rural Development, 10*(1), 450-462
- Ogbeide-Osaretin, E.N., & Ebhote, O. (2020). Does digital marketing enhance rural agricultural transformation in Nigeria? An empirical investigation. *Asian Journal of Agriculture and Rural Development*, 10(1), 1 16
- Okeke, M.N. &Nwoye, I.I. (2019). Analysis of fresh catfish marketing among natural fishpond users in Ogbaru Local Government Area of Anambra State, Nigeria. *Asian Journal of Agricultural Extension, Economics and Sociology*, 36(3), 1–7

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- Reddy, T. S. (2021). The impact of digital marketing on agricultural business in India. *Natural Volatiles & Essential Oils (NVEO)*, 8(4), 426-437
- Sajeev, M. V. (2021). E-marketing of fish and fish products. Ravishankar, C.N., A.K. Mohanty, Sajeev, M.V. (eds.) Fishpreneurship: Present Status, Challenges and Opportunities, *Biotech Books, New Delhi*, 323-336.
- Sherpaw, A., Muhsenullah, I, & Farhad, S. (2022). Impact of social media on agricultural extension in Afghanistan A Case of Ahmad Aba District. *International Journal for Research in Applied Sciences and Biotechnology*, 9(2), 67–72.
- Shyam, S.S., Harsha, E.J., Athira, R.X., Smitha, A.M. Shinu& Mohammed, M (2018). Assessment of online fish marketing in ernakulam District, Kerala. *Asian Journal of Agricultural Extension, Economics and Sociology*, 27(1), 1-8
- Yogesh, K.D., Elvira, I., Laurie, D.H., Jamie, C., Raffaele, F., Jenna, J., Varsha, J., Heikki, K., Hajer, K., Anjala, S.K., Vikram, K., Mohammad, M.R., Ramakrishnan, R., Philipp, A.R., Jennifer, R., Jari, S., Gina, A.T., & Yichuan, W. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. International Journal of Information Management, 59(8), 1-37.