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INFLUENCE OF ONLINE ADVERTISING IN THE PROMOTION OF NIGERIA PROFESSIONAL FOOTBALL LEAGUE (NPFL)

WPLYW REKLAMY INTERNETOWEJ NA PROMOCJĘ NIGERYJSKIEJ PROFESJONALNEJ LIGI PIŁKI NOŻNEJ (NPFL)

Abstract

The advent of online advertising has drastically changed how football is approached and funded. No doubt, Information and Communication Technology has had huge impact on sports development across the globe and also has created new vista for sports promotion, marketing, sports followership and revenue generation. This study examines the influence of online advertising in the promotion of Nigeria Professional Football League (NPFL). The technological determinism theory was used as theoretical basis for this research work. Survey method of research was adopted with four hundred copies of questionnaire administered to respondents in four States in the North- Central zone of Nigeria namely; Niger, Kogi, Benue and FCT. It was found that the extent of online advertising usage by the League Management Company (LMC) and NPFL club sides is poor in compare to its usage by other league organizers and club sides in advanced nations. Therefore, this study recommends that the league handlers should, immediately, consider setting up a fully equipped social media marketing team. This should include; web designers, graphic

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artists, online media influencers and advert executives. The LMC should also ensure the employment of professional web designers to revamp the look-and-feel of the site. Make it more user-friendly and updated constantly. Also, the website should be fully commercialized.

Keywords: online, advertising, league, football, promotion, professional

Streszczenie

Pojawienie się reklamy internetowej radykalnie zmieniło podejście do piłki nożnej i jej finansowania. Bez wątplenia technologie informacyjne i komunikacyjne wywarły ogromny wpływ na rozwój sportu na całym świecie, a także stworzyły nowe perspektywy promocji sportu, marketingu, obserwowania sportu i generowania przychodów. Niniejsze badanie dotyczy wpływu reklamy internetowej na promocję Nigeryjskiej Profesjonalnej Ligi Piłki Nożnej (NPFL). Podstawę teoretyczną niniejszej pracy badawczej stanowi teoria determinizmu technologicznego. Przyjęto ankietową metodę badań, obejmującą cztery kopiai kwestionariusza udzielonego respondentom w czterech stanach północno-środkowej strefy Nigerii, a mianowicie: Niger, Kogi, Benue i FCT. Stwierdzono, że zakres wykorzystania reklam online przez League Management Company (LMC) i strony klubowe NPFL jest niewielki w porównaniu z ich wykorzystaniem przez innych organizatorów lig i kluby w zaawansowanych krajach. Dlatego w tym badaniu zaleca się, aby prowadzący ligę natychmiast rozważyli utworzenie w pełni wyposażonego zespołu marketingu społecznościowego. Powinno to obejmować; projektantów stron internetowych, grafików, osoby wpływające na media internetowe i specjalistów ds. reklam. League Management Company (LMC) powinno również zapewnić zatrudnienie profesjonalnych projektantów stron internetowych w celu zmiany wyglądu i działania witryny. Sprawić, aby była bardziej przyjazna dla użytkownika i stale aktualizowana. Strona powinna być również w pełni skomercjalizowana.

Słowa kluczowe: online, reklama, liga, piłka nożna, promocja, zawody

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Statement of the problem in general outlook and its connection with important scientific and practical tasks.

The advent of the Internet has brought with it irreversible changes in the ways most things are done globally. The Internet has also greatly impacted on many disciplines and professions both positively and negatively, sometimes introducing whole new ways and perspectives. Kurma, Bell & Logue, (2014, p. 728) contend that, ‘the Internet has become an inevitable part of people’s lives’. Advertising is one profession so impacted by the Internet.

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Internet or online advertising entails the use of the Internet as a platform to get website traffic, target and disseminate marketing messages to the right customers. Online advertising is aimed toward delineating markets through exclusive and important applications. (<https://www.techopedia.com/definition/26362/online-advertising>)

The advent of the Internet has shifted advertising patronage from offline to online and by so doing creating a whole lot of opportunities for both professionals and advertisers alike. One major contribution of the Internet in the sphere of advertising is its power to facilitate online marketing of products and services. According to Deshwal (2016, p.1):

The coming of information and communication technology has had overwhelming role on sports development across the globe and has created new vistas for sports marketing, promotion, followership and revenue generation. The inherent potentials of ICT in sports promotion supported by new media platforms cannot be overemphasized.

He adds that:

Owing to the rapid development of ICT, people now spend more time online for numerous reasons such as entertainment, information, shopping etc. For this reason, companies and sporting bodies now attract towards internet advertising because online medium of creating awareness about goods and services have grown rapidly in the last decade (Deshwal 2016, p. 1).

Consequent upon its all-pervading influence, the figure of people visiting the web is increasing every day by day. People now connect with one and other and spend more time online for various reasons. The Internet has become an ideal platform for people to relax, unwind and reconnect with good friends as well as to enjoy sporting activities.

Statistics show that web advertising income in the United States accounted for \$17.4 billion in the fourth quarter of 2015, a rise of 18.3% from the 2015 third-quarter total of \$14.7 billion with an improvement of 22.8% from the 2014 report for fourth-quarter of \$14.2 billion US dollars. 2015 full year internet advertising revenues amounted to \$59.6 billion, up 20.4% from the \$49.5 billion reported in 2014 (IAB Report, 2015, p. 4).

The figures are not far off in the United Kingdom. Statistics in the UK show that advertising spending accelerate at its topmost stage since 2010, improving by 7.5% to £20.1bn, according to the UK's definitive advertising statistics report. Online advertising income increased by 17.3% to £8.6bn, with mobile advertising responsible for 78% of that development, moving 61.1% to a total of £2.6bn. The UK is arguably the biggest online advertising market in Europe and rated third worldwide, with just a place behind US and China. (<https://iabuk.net/about/press/archive/uk-advertising-spend-passes-20bn-as-growth-hits>). The Nigerian digital advertising landscape is not doing badly, with the rising interest in digital advertising by various firms. Professionals in the sector have forecasted that online promotion funds in 2020 may reach sixty percent point from about 42 percent that was recorded last year for total Above the Line, marketing communication budget, (Business Day Newspaper, 2019). Internet advertising is supported by the use of social media platforms such as Skype, blog, Facebook, Wikis, You Tube, twitter, website, blog etc. Kurma, Bell & Logue (2014) noted that social media have been growing tremendously and has delivered huge numbers of users in the last ten years. The application of social media for enhancing commercial profitability and boosting customer numbers is now well proven in different firms and industries globally. Lewis (2010) states that social media

have become a phenomenon being adopted by consumers around the globe. With the advent of social media, it is now possible for people to communicate with each other without being physically present and at the same time inform them about products, services and the companies that provide them. Thus, the role of consumer-to-consumer communications has been immensely enhanced in the marketplace.

The Nigerian elite League was established in 1990 to help reposition domestic football which was then floundering at an alarming rate. The start of professional football in Nigeria can be linked to the well documented record of dismal performance by the senior national team, then known as Green Eagles at international competitions. The Nigeria Professional Football League (NPFL) is the top level of club football in Nigeria. It is fed into by teams from the second tier league, known as the Nigerian National League with four clubs gaining promotion every season.

The handlers of the league have, unlike their colleagues elsewhere, not done much to maximize the opportunities offered by internet advertising for the good of the league. These innovations that have been used by leading sports firms across the globe with huge success recorded due to the growing importance of internet mediated interaction that has facilitated players and fans relationship, companies and customers relationship with the aim to enhance the sales of products and services seem not have impressed them.

Surprisingly, not much has been done by the NPFL handlers in cashing into the growing importance of online advertising and its inherent benefits. Rather, the league handlers have invested massively in offline advertisement across different media but the same cannot be said of online advertisement which is the in-thing in modern football marketing.

It was only towards the climax of the 2015/16 league season that an attempt was made by the League Management Company (LMC) to key into online advertising with huge investment in the expansion of digital platforms for enhanced information and communication with the signing of strategic agreement with Value Added Services and Microsoft for the development of mobile app.

Dikko, (2017, p. 8):

The League organizers, the (LMC) has entered into several strategic and commercial partnerships during the just concluded league season aimed at using technology to drive the appeal of the local league and create more commercial opportunities-these include but not restricted to agreement with Value Added Services companies working with the four major network providers in Nigeria to distribute highlights of NPFL matches via mobile phones.


This deal will attract over 90 million Nigerians who will cue in to glean information about Nigerian domestic league. With over 90 million Nigerians on data phones, the adoption of digital advertising by the league handlers has the power to drive NPFL brand and open windows for new revenue streams. It is therefore, appalling to note that much has not been done by football administrators in Nigeria to tap into this novel means of sports promotion and revenue stream to strategically position the Nigerian elite league as a superb brand that will be sought after by advertisers across the globe.

Statement of the Problem

The advent of online advertising has drastically changed how football is approached and funded. Everywhere in the world, football organizations and clubs have effectively used

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online advertising for numerous reasons to generate funds, attract sponsorship, followership, marketing and promotion. In Europe, for instance, football clubs engage players at outrageous fees and pay players mouth-watering salaries due mainly to funds from online advertising and other innovative sources. The handlers of the elite league in Nigeria have not been left behind in this respect. However, the extent of success of the league handlers in this respect falls far below the unqualified success of their European counterparts. Professional league handlers in Europe, through adoption of aggressive and innovative online advertising strategies, have used online advertising to persuade many blue-chip companies and media houses to sign sponsorship deals and television rights with them and their club sides. Such big organizations like Emirates Airlines, Jeep, Carlsberg, Samsung, Umbro among others have mega-dollar sponsorship deals with big clubs like Chelsea, Real Madrid, Paris St. Germaine, Bayern Munich, Manchester United, Arsenal and many others including their national league handlers. But in Nigeria both the League Management Company (LMC) and individual club sides' management bodies have no viable sponsors except for their individual state governments and the federal government, the main pillar of financial support for sports in Nigeria. This starves the clubs' management and LMC of the funds needed to compete favourably internationally.

Most Nigerian players leave the local league to play for even unknown clubs overseas simply on account of the poor emoluments and welfare packages in the domestic league. Cases abound of clubs owing players' salaries for many months – an unheard of a thing in Europe.

Consequent upon this poor picture painted above, the domestic league has remained undeveloped with poor infrastructural facilities; poor motivation of players; hiring of unskilled coaches among others. All these result in the poor performance of the local club sides in both domestic league and international soccer competitions like the African Champions League and others.

Since the adoption of the inherent potentials of the Internet has enabled tournament organizers, football clubs and league organizers to raise money through online advertising fees to run their activities Witkemper & Weldburger (2012) and this is apparently not the case with Nigeria domestic football league, that leaves one with the questions of: what has gone wrong with the LMC attempt in this respect? Did the football management bodies in Nigeria get it right from the beginning? What are the challenges that the professional league handlers face that make it difficult for our domestic football to benefit optimally from the opportunities provided by online advertising? What can be done to remedy the situation among others? This research tends to fill this gap in literature.

Analysis of latest research where the solution of the problem was initiated.

Objectives of the study

The general objective of this work is to appraise the influence of online advertising in the promotion of Nigeria Professional Football League. Specific objectives of this study are as follows;

- a) To determine the extent to which Nigeria Professional Football League (NPFL) use online advertising to promote football in the country.

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- b) To find the kinds of online advertising that the LMC and NPFL clubs mostly engage in;
- c) To find out the challenges that the League Management Company and NPFL club sides face in the adoption of online advertising.

Research Questions

The study seeks to provide an in-depth look into the influence of online advertising in the promotion of Nigeria Professional Football League. There are three research questions to answer in this study:

- a) To what extent does NPFL use online advertising to promote Nigerian football?
- b) What kinds of online advertising does the LMC and NPFL clubs mostly engage in?
- c) What are the challenges affecting the adoption of online advertising by the League Management Company and NPFL club sides?

Literature Review

Using Online Advertising Strategies to Promote the Nigeria Professional Football League (NPFL)

The Nigerian domestic league is in serious need of financial breakthrough owing to low sponsorship and funding by the various State Governments that are the owners of most club sides in the country's elite league. Much has been reported in the media about poor salaries structure for NPFL players, coaches and the lack of official title sponsor for the league.

This section of the study aims at showcasing the various online advertising platforms that the league organizers and professional club sides can use to boost the league, woo fans, drive engagements among stakeholders and the marketability of the league.

Pop-up advertising, for instance, is a common online advertising strategy often used by advertisers to disseminate information with the aim of attracting visitors to the website and prompt an action. Pop-up ads or pop-ups are often forms of internet advertising on the web intended to attract web traffic or capture email addresses. Pop-ups are generally different internet browser windows to display advertisements. (Adams, Cecil. "What's up with popup ads?" The Straight Dope)

Adams (2016, para. 4) adds that: The core aim of a pop up is to engage website visitors with a visible and strong call-to-action that will drive them to take the desired action. The reason why pop-up promotions are so effective is in large part on account of the typical consumer of today.

With pop-up advertisement, the league organizers can attract sponsors and fans to the domestic league through well packaged messages that will woo fans to follow the league or advertisers to capitalize on NPFL fan base to promote their brands.

Considerable research has also shown that banner advertising is another type of digital advertising that advertisers are presently utilizing to create awareness about their products and services because of its well-documented effectiveness in boosting sales and stimulating brand awareness for online visitors.

Kaye & Medoff, 2001 cited in Kozlen, (2006, p. 1) posited that: A banner advert can simply be described as a small graphical area on a Webpage, usually measuring 468 pixels wide by 60 pixels high, which include logos or messages to persuade the viewer to either

click on the web message or recall the brand advertised in a good way. Banner advertisements are connected to the advertiser's main webpage with information about the product, goods or service advertised.

Another definition by Dreze & Hussher, (2003) cited in Salem, Che & Mohammed (2016) defined banner advertisements as text cum graphical displays that are attached to the site address for the sole aim of creating awareness and draw the attention of web visitors.

Some researchers in their findings have referred to banner adverts as a type distraction to web users. However, other researchers have disputed that assertion. The importance of banner advert cannot be underplayed based on its attendant benefits to advertisers and web visitors. Since the introduction of banner advertising in the 1990s, the proliferation of banner advertising has increased exponentially and advertisers are taking immense advantage of it to boost sales. Findings by many researchers have also revealed that banner advertisement have a huge communication power. This is a potent platform that football administrators in Nigeria can use to promote the elite league since many football fans in Nigeria and the world now have untrammled access to the Internet. Through banner adverts strategically deployed online, the League handlers and club sides can generate funds from advertisers. Another well-tested platform through which the league body, (LMC) and the professional clubs can generate additional stream of revenue to the league is through online advertising sponsorship. Online advertising sponsorship is a viable term in advertising which entails the payment of a fixed fee to display a banner or other graphic on a webpage or to be added in an email newsletter. (www.knowonlineadvertising.com). To put it in another way, sponsorship is associated with linking a brand with related content or context for the goal of establishing brand knowledge and boosting brand appeal in a form that is clearly distinctive from other types of internet advertising (Source: <https://www.clickz.com/online-advertising-glossary-sponsorships/67934/>).

Presently, the website of the League organizers, www.npfl.ng has only two displayed sponsorship brands on its site namely: SuperSports, its official broadcast partners and Nigeria Breweries, official beer partner; with other spaces on the site wasting away. The situation is even bad on the official websites of most club sides in the Nigerian top league. This is a medium through which the League Managers and clubs can also utilize their online presence to generate funds. There is need for the top league organizers and club managements to be more innovative in their marketing approach toward harnessing all available online advertising source for revenue generation.

The impact of online advertising cannot be over-stretched because of its inherent benefits to the survival of most businesses in the world today. Research has also proven that the League handlers, and the professional clubs in Nigeria can boost revenue and create awareness about the Nigerian domestic football league through the adoption of sky scraper advertisement. Skyscraper advertisement is also known as skyscraper banners and its usage has become so popular within the advertising networks. Skyscraper advertisements are usually tall with heights within the range of 500 to 800 pixels and widths between 120 to 160 pixels. This is another potent online advertising tool that the league handlers in Nigeria can also use to promote the league as well as generate additional income for clubs. Additional internet advertising income channels for consideration by the LMC include Pay-Per-Click (PPC), a model of internet marketing in which advertisers pay a stipend each time its online advertisement is viewed or clicked by web visitors.

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Primarily, pay-per-click has been adjudged by online ad professional as a way through which firms buy visits to their website. It is on record that Search engine advertising is a popular type of Pay-Per-Click advert in the globe (Source: www.wordstream.com/ppc).

Empirical Review of Related Studies

Chia-Chen Yu (2008) conducted a study on professional sports marketers' perception regarding the use of web advertising. The researcher used survey method and the population of study were marketers from US professional sports bodies. The results of this study indicated that majority of professional sports clubs are using web advertising and the perceptions of professional sports marketers for its possibility in terms of both getting to the customers, fans and providing additional income through sponsorship or other activities. The study also found that the rise in the number of sports organizations is using their site as a platform to communicate with customers or fans. There have been little details on the use of online advertising in the sports industry.


Lauria (2011, p. 123) examined how online marketing and new media are use in the National Football League. The study critically analyzed the 32 NFL organizations official websites to ascertain the different aspects of new media and internet marketing each team is utilizing and to what extent. The author adopted content analysis to investigate the websites of the 32 NFL teams to discover any possible differences in new media usage and other specific variable of interest, market size and conference alignment. The findings disclosed that the top five teams namely; (New York Jets, Dallas Cowboys, Washington Redskins, Chicago Bears, and San Francisco 49ers) are utilizing many online marketing and new media methods. The author further posits that since little previous research exists on the topic, it is interesting to find the significance between social media usage and conference or market size. With the information available about how productive Facebook and Twitter can be to businesses of all types, it appears that all 32 teams of the NFL are appreciative of the different advertising methods and their importance, and are making comparable usage of this medium to interact with fans on a personal level.

Another study reviewed is the research conducted by Richard, Burke, Jackson & Buning (2011) which investigated the use of stewardship to cultivate fandom online: Comparing how National Football League teams use their websites and Facebook to engage their fans. The researchers used content analysis method to perform the study during a 1- week span of the 32 NFL teams and was conducted in North Carolina, USA. The study compared how public relations practitioners use the National Football League teams' websites and Facebook pages to cultivate relationship with fans adopting stewardship methods promoted by public relations work.

The study acknowledged that NFL teams were actively using stewardship to boost fandom among their online environments; however, significantly greater emphasis was being placed on relationship growth on the teams' own websites than for Facebook. The study noted that the involvement of all four stewardship variables were statistically greater for the websites than for Facebook. The study further revealed that sports fans actively seek and consume information about their favorite teams and players. Whereas most consultants stress that individual rarely visit organizational websites unless directed there by search engines.

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Nyekwere, Kur and Nyekwere (2013) looked at the level of awareness and use of social media in advertising with focus on the use of Facebook among Residents of Port Harcourt, Rivers State, Nigeria. The researchers adopted survey research design.

The study discovered that social media fosters an open, transparent environment where discussion flows freely between the consumers and advertisers. The study further posited that thin line exists between consumers and advertisers on social media (Facebook) since the content of social media sites are user generated. This statement is premised on the fact that anybody with computer and Internet service can create and publish content.

On the challenges inherent in social media advertising, the study discovered that people are gradually harnessing the potentials of new media as a type of marketing strategies and others making buying decisions on them either on their own or through recommendations by their trusted friends. In a related study, Otugo, Uzuegbunam, Obikeze, (2015). The study investigated the level of awareness, attitude and responsiveness to Facebook advertising from the perspective of Nigerian youths who are considered to be active social media users. The researchers used survey method to conduct the study.

The study discovered that Facebook experience and its use is trendy among the sampled Nigerian youths. The scholars posited that Facebook usage among the youths was facilitated by their Internet-enabled mobile phones. The work further showed that Nigerian youths are beginning to join their peers in other societies to engage more with the web and their mobile phones. Another pronouncement from the research disclosed that most of the sampled youths are aware of advertisements on Facebook as most of them have encountered series of internet advertisement messages because they named some of the different advertisements they have seen online.

Odhiambo (2012) conducted a study on social media as a tool of marketing and creating brand awareness. The researcher used case study method to ascertain the validity of social media in marketing and brand awareness". The study discovered that even though social media is effective than other types of the old advertising media, it cannot be enforced in aloofness without intensifying it with types of traditional advertising platforms. The consequences are that social media alone cannot establish brand awareness or even promote business. The study showed that social media is fast becoming an important marketing tool which offers companies opportunity to engage with their markets and to learn about customers' needs, important segments and profile unlike mainstream media. Another core finding of the work disclosed that social media sites can be a threat and opportunity to companies as they can rapidly spread the comments of dissatisfied customers.

Chaubey, Sharma & Pant (2013) examined the effectiveness of online advertising in recalling a product from an empirical perspectives. The study was done in India and the researchers adopted a quantitative approach to generate data from over 1000 respondents. The study found that animated advertisement and banner plain text make online advertisements a very potent tool in motivating consumers in recalling online advertisements and eventually making business transactions. The research concluded that embedded video, floating advertisement and pop up advertisement are not as effective as animated advertisement and banner plain text. Heinonen & Rozenveld (2013) looked at the challenges facing the advertising world in the digital era with comparison between Dutch and Swedish advertising agencies. The researchers used qualitative method to conduct the study. One of the main and agreed results of the research is that changes in technology

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are related to the structure of advertising industry in Sweden and Netherland. The authors attributed the development in the structure to financial crisis. Budgets are cut back and clients of the advertising agencies are facing severe financial problems, which in turn affect the dealings of the agencies. Based on the arrival of ICT, consumers are now being flooded with promotional messages and are thus blocking more than before. The authors asserted that despite this fact, that content still remain one of the mostly pivotal factors in grasping the attention of today's consumers. The authors noted that another element that resulted to the change of structure of advertising agencies in the two countries was based on the shift from long-term relationships to relationships based on price. As price became important, clients nowadays bargain harder and the relationship is more shifted to a project-to-project base. It was also discovered that the advertising sector in the both countries are more diversified and fragmented than before because professionals break away from their network agencies to float their personal organizations and the background of these people changed. In the view of the authors, this fact has accounted for an abundant amount of smaller specialized agencies versus a smaller sum of big network agencies.

Theoretical Framework

The theory adopted for this study is the Technological Determinism theory. The Technological determinism theory was postulated by Marshal McLuhan. The theory of Technological Determinism is connected to the research carried out by Marshall McLuhan who opines that people are now living in a new age of technology that has never been witnessed before. (McLuhan, 1962, para. 2).

The theory predicted that changes in communication modes will largely determine the course of history. Izuogu & Nwachukwu (2013, p, 19) remarked that the primary focus of the theory was on the causal-relationship between media technology and culture. The theory links the historical, economic and cultural changes happening in today's world to the invention and subsequent development of new media technologies.

Griffin, (2000, p. 319) remarks that: McLuhan predicted that advancement of computerized technology and media will change collective cognitive processes of society at large. People would shift from a prevalently individualistic lifestyle facilitated by the Industrial Age into a distinct wave of social experience conceived by him as the "Global Village" where people are connected worldwide through participation in smaller communities... The advent of online advertising has created new vista for sports marketing and fans followership of their favorite games through the functionalities of the Internet. Clubs sides can now communicate with fans on their websites without restriction and also attract sponsors or advertisers to place advertisements on their website with the hope of enhancing sales of their products while the club side in return, generate additional streams of revenue to run the club instead of relying on traditional means of revenue generation. It is instructive to note that, in the past, this is not possible, but now due to technological advancement, clubs and organizations can now confidently attract sponsors and create awareness about their goods and services. The technological component of sports marketing is best explained by the efficacy of this theory used by the researchers.

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Aims of paper. Methods

Research Design

Survey method of research was used to conduct this study. This is because survey allows for the collection of people's opinion with the purpose of analyzing the questions asked in the research. It is obvious that when the pertinent source of primary data for a study would be views of the people, a survey method would be called for.

Population of the Study

The population for this study was drawn from the North-Central zone of Nigeria which invariably consists of many football fans, internet users, advertising experts, sports journalists, newspaper houses and other Nigerians who live within the North-Central geo-political zone of the country which according to the 2006 Census Report stood at 20, 369, 956. The 2006 population figure of the region is obsolete, in view of this, the United Nations Population Fund projection of 3.2 was used to ascertain the present population of the region. The United Nations Population Fund (UNFPA) projection of 3.2 over fourteen years gave 29, 495, 696. The North-Central zone which was used to represent Nigeria is comprised of seven (7) States namely; Benue, Niger, Kogi, Nasarawa, Plateau, Kwara, including the Federal Capital Territory (FCT-Abuja). The researchers purposively selected Niger, Benue, Kogi and FCT-Abuja as the four states to study.

Sampling Size

The sample size for this research work is 400. The sample size was derived using the Australian Calculator as provided by the National Statistical Service (NSS) of Australia. The calculator provides a simplified formula for calculating sample sizes.

To determine sample size: Confidence Level: 95%; Population size: 29, 495, 696.; Proportion: 0.5; Confidence Level: 0.049; Upper: 0.54900; Lower: 0.45100; Standard Error: 0.02500; Relative Standard Error: 5.00; Sample size: 400

Sampling Technique

Quota sampling technique was adopted to distribute the copies of questionnaire among the four selected states from the North-Central geo-political zone of the country. Each state got 100 copies of questionnaire.

Measuring Instrument

The instrument used for the purpose of data gathering was the questionnaire. The questionnaire was divided into two categories; the demographic and psychographic categories.

Method of Data Analysis

The data received from the instrument was analyzed using the quantitative method of analysis. The quantitative analysis tool that was adopted for this research are tables of frequencies and percentages. The table presentation of data made use of title to indicate the material presented therein.

Exposition of main material of research with complete substantiation of obtained scientific results. Discussion

Research question 1: To what extent does NPFL use online advertising to promote Nigerian professional football league?

Research question one sought to determine to what extent does NPFL uses online advertising to promote Nigeria Professional Football League (NPFL). The generated data show

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that majority of the respondents followed the Nigeria Professional Football League (NPFL) with 376 (94%). Another findings of the study shows that the respondents are aware of the existence of online advertising with 372 (94%) affirming to the question, with less than 17 (5%) expressing lack of awareness while 11 (1%) of the respondents were indifferent in their decision. The high percentage of the respondents' level of awareness of online advertising agreed with the findings of Otugo, Uzuegbunam & Obikeze (2015) the study found that the awareness level of online advertising among youths is popular. The researchers stated that online visit and usage by Nigerian youths are necessitated by their Internet-enabled mobile phones. The study also found that the League Management Company (LMC) and Nigeria Professional Football League (NPFL) club sides are not fully utilizing the inherent potentials of online advertising with majority of the respondents 335 (84%) saying they are not aware of online advertising usage by both the LMC and NPFL while 61 (15%) said that the League Management Company and the Nigeria Professional Football League are using online advertising.

Another sub-question asked under research question one was to determine if online advertising can be used to promote the Nigeria Professional Football League (NPFL). The findings show that majority of the respondents 381 (95%) said that online advertising can be used to promote the domestic league, 14 (4%) said online advertising cannot be used to promote the league while 5 (1%) were indifferent. To ascertain how online advertising can be used to promote the domestic league, from the data gathered, 107 (28%) of the respondents stated that online advertising can be used to promote the local league through constant dissemination of information about the league on the web, 138 (35%) of the respondents sampled said that online advertising can be used to promote the league through uploading of match highlights on their websites to woo traffic, 54 (14%) of the respondents were of the view that the league organizers and NPFL clubs should integrate online television platform on their websites so that fans can stream matches live from any destination, 63 (16%) of the respondents disclosed that online advertising can be used to promote the league by attracting advertisers to advertise their goods and services on their websites while 38 (10%) said the League Management Company should use the various online advertising strategies to create awareness on match fixtures, players signings and boost fans engagement with the clubs.

Research question 2: What kinds of online advertising does the LMC and NPFL clubs mostly engage in?

Research question two sought to provide insight into the kinds of online advertising that the League Management Company and Nigeria Professional Football League club sides mostly engage in. The study found that majority of the respondents sampled have a broad knowledge of the different types of online advertising with 329 (82%), 64 (16%) of the respondents do not have knowledge of the various types of online advertising while 7 (2%) are indifferent in their comments.

The study also shows that the League Management Company (LMC) mostly engage in sponsorship type of online advertising with 154 (38%) of the respondents affirming to that, 39 (10%) of the respondents said that the League Management Company and Nigeria Professional Football League mostly engage in Pop-ups and Pop down advertising, 27 (7%) opted for search engine optimization as the kind of online advertising that the LMC and NPFL club sides mostly engage in, 132 (33%) were of the view that LMC and NPFL

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club sides mostly engage in banner advertising, 35 (9%) chose pay per click while 13 (3%) of the respondents chose email advertising as the kind of online advertising that LMC and NPFL club sides mostly engage in. Another findings show that majority of the respondents said that the League Management Company should subsidized the cost of online advertising incurred by NPFL club sides.

Research question 3: What are the challenges affecting the adoption of online advertising by the League Management Company and NPFL club sides?

On the challenges inherent in online advertising usage by the League Management Company and Nigeria Professional Football League clubs, the data generated show that 26 (6%) of the respondents stated that technical problem is a major challenge that club sides face in the use of online advertising, 275 (69%) of the respondents affirmed that financial problem is the greatest challenge that club sides face in the adoption of online advertising, 54 (14%) of the respondents sampled stated that paucity of Information and Technology infrastructure are responsible for poor usage of online advertising by LMC and NPFL club sides, 32 (8%) of the respondents said that low ICT knowledge is a major challenge that the LMC and NPFL club sides face in the usage of online advertising while 13 (3%) of the respondents pin-pointed inadequate manpower on IT related matters, absence of competent online media officers, shortage of online advertising professionals are some of the problems responsible for the poor level of online advertising usage by LMC and NPFL club sides as disclosed by the respondents. To cope with the challenges affecting the use of online advertising, findings from the study also disclose that 118 (30%) of the respondents said that the League Management Company and Nigeria Professional Football League club sides should provide funds to the department or unit in charge of advertising to enable the Unit produce quality and audience oriented online advertisement that would attract fans and sponsors to the league, 81 (20%) of the respondents affirmed that training and re-training of staff on the modern trends in digital marketing and advertising would help solve the problem, 59 (15%) of the respondents called for government support in the area of IT infrastructure, 37 (9%) of the respondents stated that the club sides and the League Management Company should seek sponsorship or partnership from telecommunication companies in Nigeria to ensure availability of internet connectivity to champion the use of online advertising vis-à-vis access to the Internet while 105 (26%) said that employment of competent public relations officer and marketing personnel that are well grounded in the art of digital advertising would help address the problem. The study discovered that all the clubs in the domestic league as at the 2016/2017 league season have web presence but they are not effectively using the site to generate revenue none to enhance fans engagement. Most of the club's website are moribund, unattractive, outdated and not timely updated, not to talk of using it for advertising purpose. It is appalling that majority of the clubs cannot boost of professional staff to handle their website in the art of digital marketing or advertising. This would help solve the problem of poor funding that has been the bane of the local league since inception.

The study also found that there is need for synergy between the League Management Company (LMC) and the Nigeria Professional Football League (NPFL) club sides in respect to online advertising messages that would best sell the league to advertisers and boost fans followership of the league.

Summary of Major Findings of the Study

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The following results were obtained:

1. The study found that majority of the respondents are aware of the existence of online advertising and its usage by professional club sides and league handlers in other advanced countries.
2. Based on the data generated from the respondents, the study found that the League Management Company (LMC) and the Nigeria Professional Football League club sides are not fully utilizing the inherent potential of online advertising to promote the domestic league.
3. The researchers found that majority of the respondents agreed that online advertising can be effectively deployed as a tool to promote the Nigeria Professional Football League (NPFL).
4. The study found that financial constraint is the core challenge affecting the optimal usage of online advertising by the League Management Company (LMC) and the Nigeria Professional Football League (NPFL) club sides.
5. Finally, the study found that all the club sides in the Nigeria Professional Football League as the 2016/2017 league season have web presence but they are not effectively using the site to generate the much needed revenue to run the clubs none to enhance fans engagement.

Conclusions

Based on the findings of this study, there is no denying the fact that the Nigeria Professional Football League (NPFL) has the potential to become a global brand that would be sought after by advertisers. This point can only be achieved through strategic functionalities of online advertising channels that are mediated by the Internet. With this, the Nigerian domestic league can become a major foreign exchange earner for clubs and the league organizers in particular and the country at large.

Recommendations

Based on the findings of this research work, the following recommendations were made:

- a) The League Management Company (LMC) should, as a matter of urgency, consider setting up a fully equipped social media advertising team. This should include; web designers, graphic artists, social media influencers and advert executives. The LMC should also ensure the employment of professional web designers to revamp the look-and-feel of the site, make it more user-friendly and updated constantly. Also, the website should be fully commercialized.
- b) The League Management Company (LMC) and Nigeria Professional Football League (NPFL) clubs should open up its online advertising space to accommodate more sponsors or partners to advertise on its websites to generate funds.
- c) Placing banner adverts on Google Ads which gets seen on many popular websites. These banners could promote key fixtures, league table, top scorers or other vital details about the league. With the banners re-directing visitors to the home page of the League Management Company (LMC) or the Nigeria Professional Football League (NPFL) clubs to allow interested readers garner more details on the league's activities.
- d) The League Management Company (LMC) should seek for sponsorship or partnership deal with any of the telecommunication outfits in Nigeria to ensure availability of internet access across all the league venues in the country. This will boost online

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advertising usage by club sides in the Nigerian professional football league and fans engagements.

References:

1. Chaubey D.S., Pant M., (2013). *Measuring the effectiveness of online advertising in recalling a product: An empirical study*. International Journal of Management Convergence. Vol.4, No-2, 2013.
2. Chia C.Y., (2008). *Professional sports marketers' perception regarding the use of web advertising: European Sports Management Quarterly*. Vol.7. No-2, 2008.
3. Deshwal P., (2016). Online advertising and its impact on consumer behavior. International Journal of Applied Research ; 2 (2): 200-204.
4. Griffin E., (2000). A first look at communication theory (4th ed.). Boston, MA: McGraw-Hill. pp 313-325.
5. Izuogu K.C., Nwachukwu C., (2013). Media and anti-social behaviour amongst Nigerian youths: Towards taming the tide. ACCE 2013 Conference held at the University of Nigeria, Nsukka in 2014.
6. Katz E., Blumler J.G., Michael G., (2011). *Uses and gratifications research*. The Public Opinion Quarterly 4th ser. 37 (1973–1974): 509-23. JSTOR.Web. 14 March. 2020. <<http://jstor.org/stable/2747854>>.
7. Kozlen K. (2016). *The value of banner advertising on the web*. Being an M. A. thesis submitted to the Faculty of the Graduate School, University of Missouri-Columbia.
8. Kridler O. (2004). *Online ad demand bumps up prices'*, advertising age, Retrieved on October 23, 2016.
9. Kudumeli A.K., (2008). Online Advertisement. Being a term paper submitted to the Department of Business Consulting, Fakultat Wirtschaftinformatik Hochschule Furtwangen University.
10. Kurma J., Bell V., Logue C., (2014). *A study of the use of social media marketing in the football industry*. Journal of Emerging Trends in Computing and Information Sciences Vol. 5.No. 10.
11. Lauria J., (2011). *Online marketing and new media usage in the national football league"*. Sport management undergraduate. Paper 29.
12. McLuhan M., (1962). *The Gutenberg galaxy: The making of typographic Man*. Toronto: University of Toronto Press.
13. Mikailu N., Agbo P.M., (2013). *Newspaper readership level and pattern amongst students in tertiary institutions*. A study of Federal Polytechnic Bida students. Conference Proceedings, ACCE 2013 held at the University of Nigeria, Nsukka.
14. Nichols T., (2013). *Internet advertising strategies for 2013*. Retrieved from <http://www.clickz.com> on March 7, 2016.
15. Nyekwere E.O., Kur J.T., Nyekwere O., (2013). *Awareness and use of social media in advertising: The case of Facebook among residents of Port Harcourt, Nigeria*. An International Multidisciplinary Journal, Ethiopia Vol. 7 (4), Serial No. 31, September, 2013:174-194 ISSN 1994-9057 (Print) ISSN 2070--0083 (Online).
16. Odhiambo C.A., (2012). *Social media as a tool of marketing and creating brand awareness*. A case study research. Being a Bachelor thesis submitted to the department of Business Administration, University of Applied Sciences, VaasanAmmattikorkeakoulu.

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17. Otugo N.E., Uzuegbunam C.E., Obikeze C.O., (2015). *Social media advertising/marketing: A study of awareness, attitude and responsiveness by Nigerian youths*. International Conference on Communication, Media, Technology and Design 16 - 18 May 2015 Dubai – United Arab Emirates.
18. Rozenveld M., Heinonen T., (2013). *Challenges facing the advertising world in the digital era*. Being a Master Thesis in Marketing submitted to the School of Business, Society and Engineering, Malardalen University. Retrieved on April 16, 2020 from [http://www.diva-portal.org/smash/get/diva2: 635061/FULLTEXT01.pdf](http://www.diva-portal.org/smash/get/diva2:635061/FULLTEXT01.pdf).
19. Teodor D., (2015). *Social media usage in European football industry; Is Digital reach better correlated with Sports of financial performance?* Romanian Economic Journal, Department of International Business and Economics from the Academy of Economics Studies Bucharest, Vol. 18 (55), pp. 117-128, March.
20. Turley L.W., Shannon J.R., (2000). *The impact and effectiveness of advertisements in a sports arena*. Journal of Services Marketing, Vol. 14 No.4, 2000, pp. 323-336
21. Ugboaja S.U., (2010). *The role of press in curbing football hooliganism in Nigeria Premier League*. Unpublished undergraduate project submitted to the Department of Mass Communication, University of Nigeria, Nsukka.
22. Witkemper C., Lim C., Waldburger A., (2012). *Social Media and Sports Marketing: Examining the motivations and constraints of Twitter users*, Sports Marketing Quarterly, 21, 170-183.

Sources of Internet:

23. Adams Cecil. "What's up with popup ads?" The Straight Dope (<https://www.straightdope.com/columns/read/2566/whats-up-with-popup-ads/>)
24. Adams R., (2003). *www.advertising.com*, Broadway, NY: The Illex Press Limited.
25. Dikko S., (2017). NPFL 2015/2016 season's review. Retrieved from [http://: www.npfl.ng](http://www.npfl.ng) on Thursday, March 9, 2017.
26. Dreller J., (2010). A brief history of paid search advertising. <http://searchengineland.com/a-brief-history-of-paid-search-advertising-33792> (last visited 13/8/2016).
27. Graham R.A., (2010). Brief history of digital ad.buying and selling.[http://www.clickz.com/clickz/column/ 1721924/a-brief-history-digital-ad-buying-selling](http://www.clickz.com/clickz/column/1721924/a-brief-history-digital-ad-buying-selling) ((last visited 13/8/2016).
28. NSS (2020). Australian calculator. Retrieved from <http://www.nss.gov.au/nss/home.nsf/pages/Sample-size-calculator> on January 19, 2020.
29. Rahaman A., (2012). About the league [Web log post]. Retrieved on March 21, 2016 from www.nnl.com
30. The Washington Post (2004, June 23). Google ends its dispute with yahoo. <http://www.washingtonpost.com/wp-dyn/articles/A52880-2004Aug9.html> (last visited 02/08/2016).
31. www.goal.com
32. www.knowonlineadvertising.com
33. www.npfl.ng
34. www.wordstream.com/ppc

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