Newspapers are getting less popular due to the introduction of new media technology, where readers can access news for free. Better approach is needed to face the current challenges posed by the new media technology. This paper discusses how technology can be adopted to sustain newspaper publication in the digital age of communication particularly in Nigeria. This paper confirms that the major challenge for Nigerian newspapers is how to utilize new technology and discover ways to make their online product popular. Technological advances are both a challenge and expedient for the future survival of print newspapers in Nigeria. Newspaper owners who recognize the adaption of technology would survive in the digital age of communication. This survival can better be achieved by maintaining both print and online-based publications.

**1. INTRODUCTION**

The entire aim of communication is for the message to reach the target audience. Once the message is disseminated and understood, people can continue to pass on information that is perceived as important or interesting. Since then, people have exchanged information in person, face-to-face, and at a distance using technology. They used smoke signals, fire beacons, drums, the heliograph, semaphore, maritime flags, and recently complex telecommunication networks. Today, people receive messages from family, friends, co-workers and acquaintances via online contacts. Presently, the internet has given new life to contagion models, because it makes it possible for all kinds of messages, including those transmitted from the mass media megaphone, to be carried far and wide through direct personal contacts, reaching an enormous number of people via online technologies (Smith and Hendricks, 2010).

The internet has removed all geographical boundaries, and as a worldwide platform, it has extensive global audience reach. Today, information dissemination is instant and more efficient in reaching the target audience. This is facilitated by the zero marginal cost associated with digital news content and exchange of messages via the
Internet, unlike print and broadcast media that have to account for additional printing and delivery costs when expanding their reach. The mere ability to access information and receive instant updates on the internet threatens the purpose of newspapers, and it has evidently been a growing source of competition and contention for the newspaper publishers (Sajjad, 2013; Bichi et al., 2017).

Digital news is in demand because the internet has become one of the most popular sources of news. One of the key features of digital news is its ability to provide news in real-time. Online news is always being updated, alerting users with any breaking news. In addition, hand-held devices allow users to receive these updates instantly. As a result, transit commuters and business travelers are constantly in touch with the news. For readers, accessing news digitally gives them access to an abundance of news to select from, majority of which is currently available for free. This allows readers to cross-check any information if needed (Patel, 2010). Newspapers are getting less popular due to the introduction of new media technology, where readers can access news for free (Hassan et al., 2015). Therefore, this paper discusses how technology can be adopted to sustain newspaper publication in the digital age of communication particularly in Nigeria. This paper contributes to the process of selecting better strategies for the continuous survival of print newspapers in the digital age of communication. This could be useful for newspaper publishers in search of an effective strategy to face the current challenges.

2. THE RISE OF DIGITAL NEWSPAPERS

Since the invention of the first digital computers in 1930s, the power of computing and storage capacity has improved extensively. The ability to access, modify, store and share digital media has been simplified by personal computers and smartphones, leading to digital revolution. Digital revolution refers to the transformation from analogue technology to digital electronics, which started from late 1950s with the recognition and spread of digital computers that remain until present day. Digital media have rapidly transformed the society in the 21st century and generated a new era recognized as digital revolution (Bazillion, 2001).

According to Lauer (2009) the advent of digital media is associated with technological innovations. The combination of digital media with other forms of media and socio-cultural factors is regarded as new media. The notion on moving toward a fully digital society is complemented by the fear that people might rather experience a digital dark period, in which traditional media will no longer be accessible on new devices. Digital media have a substantial, extensive and multifaceted influence on the society (Mizuko et al., 2008).

As a result of the emergence of digital technology, several newspaper organizations commenced both print and online operation. Online newspapers make report of events more believable as readers can easily press a button on the computer to verify such reports. Online newspapers use interactive features which allow audience to register their opinions about topical issues (Mathew et al., 2013). Dominick (2007) states that online newspapers have several advantages: They are interactive and can provide photos and video clips to accompany news stories and advertisements. Online newspapers can feature user-generated content.

Turow (2010) points out that newspaper websites encourage their audiences to engage with the site in numerous ways. For example, you can email a reporter whose story you have read or join a community of readers to discuss particular news topic and create a blog around any topic you like. You can also search for the week news by using words of your choice and browse an archive of newspaper issues that may go back to decades and beyond. The rise of the internet and other technologies completely changes how news is produced and diffused. It enables the entry of new intermediaries that create and distribute news, including online news aggregators, online news publishers, mobile news actors, and citizen journalism (OECD (Organization for Economic Co-operation and Development), 2010).
3. THE FUTURE OF NEWSPAPERS IN DIGITAL AGE OF COMMUNICATION

There exists a debate among media industry observers as to whether new media technologies will drastically alter the traditional media landscape and perhaps serve to bring about its demise (Smith and Hendricks, 2010). Hence, significant differences in the quality of content provided by the print and online news and the challenges facing the newspaper industry in the digital age of communication have been examined by many researchers in different countries of the world (Lucena, 2011). After the onset of the internet, newspapers realized that they would face challenges to their survival if they do not keep up with new technological competitions. At present, newspaper organizations are embracing technology as a way to meet readers’ expectations (Everett, 2011). Patel (2010) argues that newspapers have to realize that there are so many challenges to their survival in digital age of communication. They have to take into consideration that they are no longer the only credible source of news available. The internet as a medium of communication has the potential to challenge the print media because of its added advantages in the production of news and information.

Media futurists also share their insights on how newspapers will change in the future. Everett (2011) argued that it is unclear where technology will reach in the future. Therefore, the survival of newspapers might be difficult to predict. However, information from the past and present would be helpful in predicting the future trends in the print media industry. Today’s communication environment poses greater challenges to newspapers than the introduction of broadcast media. While radio and television had a severe effect on newspaper circulation, the internet has shown the potential to have more significant effect on traditional media especially newspapers. It redefines the society’s notion of journalism, news, community, and civic participation (McClure, 2010).

It should be noted that news aggregators are fierce competition for newspapers due to the convenience they provide to users. By aggregating information from various news sources, aggregators help users find the information they are looking for. As a result, news readers rely on news aggregators for their news updates (Patel, 2010). In fact, electronically distributed digital text-based media began to supplant the traditional print media. Newspapers are feeling the pinch, largely because of competition from the internet. At the same time, the future for the traditional print-based newspaper is uncertain. While some might see this as logical since the new media are expected to rush in to fill the void, critics of this perspective pointed out that relatively little original reporting is initiated by the websites (Phipps, 2010).

The actual issue is that most publishers provide content for free. Thus, readers have become accustomed to consuming information for free. In addition, the traditional news offering style of newspapers is becoming outdated. Readers have become influenced with the stylistic way online journalists report news, and this has led to a shift in news consumption patterns (Patel, 2010). Phipps (2010) argues that no one is certain about the future survival of print newspapers, but the demand for written materials will continue. How those written materials will be distributed is not completely clear. Although it is continuously claimed that the print newspapers have suffered a serious loss in readership, current studies reveal a more differentiated picture. Readers still have a preference for traditional media brands when it comes to serious news. While newspapers see reductions in print circulation, their online editions experience a growing readership (Baumann, 2010).

Phipps (2010) suggests that news producers must come to recognize the value of digital-based virtual newspapers as sustainable forms. This is one of the important stages of revolutionary change in print newspapers. Lee (2008) noted that to determine how print and online newspapers can improve and work together in the future, newspapers need to look at readership preferences based on societal, cultural and technological changes. Therefore, to ensure the future survival of print newspaper, improvements have to be made to its contents and presentation. In addition, by working together, print and online newspapers can supplement each other.


3.1. The Survival of Nigerian Newspapers

Newspapers in Nigeria are largely owned by private individuals, governments, and groups. Despite the assumptions that the government owned newspapers are meant to protect people’s interest, their purpose is generally to safeguard the interests of government elites who mostly use the newspapers to promote their policies in government. The newspaper industry in Nigeria is dynamic, and this might be as a result of its long history. Nigerians have been provided with various publications since the introduction of *Iwe Irohin* in 1859 as the first local publication in the country. Most of Nigerian newspapers are privately owned (Babalola, 2002; Adesoji and Hahn, 2011).

Newspapers are viewed as the backbone of the Nigerian media. This is clearly justified by the history of the media industry. However, there are various challenges facing the print newspaper industry in the country. The combined circulation of the newspapers in Nigeria has been on a steady decline. According to Dare (2011) the reasons for this decline might include high cost of newsprint and in recent times, the advent of the internet and the variety of online platforms that allow readers to obtain news and information for free. Another challenge facing newspapers in Nigeria is that politicians who own the newspaper outlets manipulate them to achieve their political agenda. In most cases, if the political agenda of such politicians is achieved, they abandon the newspaper. As a result, many newspaper organizations in Nigeria have been closed down (Media Reach OMD Nigeria, 2005).

The advent of civilian rule and a more democratic dispensation appeared to have changed this pattern of instability to some extent. There has been a growth in newspaper investment by non-politician investors who are willing to set up the print media and allow professionals to work with a measure of independence. For examples, significant improvements have been made in the print media landscape upon the establishment of *The Sun* and *Daily Trust* newspapers between 2000 and 2005 (Media Reach OMD Nigeria, 2005).

In Nigeria, studies show that there is a competitive print media landscape. Most significant of all, the advent of online newspaper which has drastically altered the way journalists report news. Ekhareafo et al. (2013) examined the challenges of newspaper management in the age of information and communication technology in Nigeria. Their findings revealed that one of the challenges facing print newspaper readership in Nigeria is from social media. They concluded that while communication technology might influence the practice of journalism, it could raise several challenges to the management of newspapers in Nigeria.

Hassan et al. (2015) found that readers are highly motivated toward online newspaper reading in Nigeria. Online newspapers are getting popular due to certain values they offer to the readers, including timely updates and interactivity. In another study, Hassan et al. (2015) concluded that in Nigeria, online newspapers satisfy the readers’ need for news to a moderate extent. Competition from the internet resulted in the demise of several newspapers between 1990s and early 21st century. With the current information dissemination via the internet, a situation of overflow of news is created and the scope of news often national or global (Agboola, 2014).

Some studies (Obijiofor and Green, 2001; Agboola, 2014; Aliagan, 2015) confirmed that there is a bright future for Nigerian newspapers if they embrace technology and improve the print quality. Obijiofor and Green (2001) maintained that there are still chances for newspapers to struggle and survive. They can position themselves to positively face the challenges of 21st century. Hassan et al. (2015) suggested that newspaper publishers should strategize ways to fully embrace their technological fate and enhance quality print run. Aliagan (2015) also found that it is necessary for Nigerian newspapers to create certain strategies to avoid mortality.

Despite the current challenges facing the newspaper industry, publishers take advantage of the current media technology to reach the world. This is because the new media platform enables the reporters to gather news and get reports from other media organizations (Ekhareafo et al., 2013). Journalists, especially when writing for print media, can gather news via the internet and do their fact-checking or inquiries into facts and figures or background historical information directly from their homes or offices (Salman et al., 2011).
The assumption by media analysts that the newspaper industry in Nigeria is in continuous decline is dependent upon circumstances (Agboola, 2014). Okeke et al. (2013) also posited that the survival of print newspapers in digital age of communication depends on how it adjusts to the new media environment. Newspaper publishers should be aware that the interconnectivity made possible by the internet is one of the advantages it has over the traditional media. According to the findings of Abdurraheem et al. (2012) the effectiveness of the internet changes the pattern of information dissemination and news consumption in Nigeria, especially among the youth. Okonofua (2012) revealed that almost half of the population read online newspapers frequently.

The internet is intruding into newspaper audiences due to the proliferation of online news sources. Recent statistics showed that Nigeria has the highest internet users in Africa (Internet World Stats, 2017). Online news popularity in Nigeria witnesses a tremendous growth with the availability of internet access. However, studies provided enough evidences to believe that print newspapers will continue to survive in Nigeria. Tommy (2014) argued that the future of print newspaper in the country is bright due to its inherent qualities. Almost all Nigerian newspapers update their websites more often than they produce print editions. Most of them have breaking news sections on their websites where stories are published before they appear on conventional platforms (OSF (Open Society Foundations Report), 2012).

A study conducted by Tommy (2014) interviewed eight top and middle management staff from four Nigerian newspapers (The Guardian, Vanguard, Tribune, and Sun, Newspapers). Several trends emerged from the interview, suggesting that free online news is one of the significant factors affecting the print newspaper readership in Nigeria. Causal relationship between newspaper readership and the internet penetration variation was found only in developing countries (Lucena, 2011). Therefore, it is assumed that the availability of information on the internet could satisfy the readers' need for news and slowdown the demand for the print newspapers (Okoro and Diri, 2010).

Tommy (2014) study indicated that the technological advances, including online and social media platforms, are both a blessing and a curse to newspaper organizations. The current technological innovations could be properly utilized to enhance the print media functions and, at the same time, might negatively affect their survival if care is not taken. There are evidences showing that newspapers could take advantage of the potentials of online news platform as a solution to the issue of their dwindling readership. Print newspapers have played an important role in the country’s political change and their social relevance can still be maintained. Nonetheless, publishers in Nigeria can only succeed if efforts are made toward ensuring that the news content is innovative and captivating.

4. CONCLUSION

This paper discussed the future survival of print newspapers in digital age of communication particularly in Nigeria. Most of the relevant studies focused on print and online newspaper readership. The paper also highlighted on the current state of newspaper industry that portrays the challenges, opportunities as well as complexity and multifaceted nature of the print media industry in digital age of communication. It is evident that the major challenge for Nigerian newspapers is how to utilize new technology discover ways to make their online product popular because readers demand more online-based news. Publishers need to realize that future success is with the internet. Technological advances are both a challenge and expedient for the future survival of print newspapers in Nigeria. Newspaper owners who recognize the adaption of technology would survive in the digital age of communication. This survival would better be achieved by maintaining both print and online-based publications.

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declare that they have no competing interests.

**Contributors/Acknowledgement:** All authors contributed equally to the conception and design of the study.
REFERENCES


Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Asian Social Science shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.