

Challenges and Opportunities for Newspapers in the Age of Digital Communication

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Abstract

New media technology influences almost all aspects of traditional media, including subscriptions, readership, circulation, and advertising revenue. In particular, the possibility to access information and receive instant updates via the internet has threatened the existence of traditional newspapers. Therefore, this paper aims to review the challenges facing newspapers in the age of digital communication and how publishers can utilize digital technology to expand readership and maximize subscription and advertising revenues. The outcomes of this review showed that challenges faced by newspapers include a general decline in reading culture, lack of interactivity, readers' preference for free news, and the need to minimize the cost of production and distribution as well as provide timely updates. Nevertheless, by utilizing digital technology and maintaining print editions, publishers can provide credible news and information to expand their reach and attract advertisers. Technology has not been able to replicate the credibility and quality of newspaper content. This review was an attempt to provide useful information to newspaper publishers, journalists, advertisers, and readers on news delivery and consumption in the age of digital communication. This review is limited to newspapers, and hence further research may focus on broadcast media such as radio and television.

Keywords: Advertising Revenue, Digital News, Newspaper, Online Platform, Readership

Introduction

The entire aim of communication is for the message to reach the target audience. Once the message is disseminated and understood, the audience continues to pass on information that is perceived as important or interesting. In the past, people exchanged information face-to-face. They used tools such as smoke signals, fire beacons, and drums. Today, people use complex communication networks, online platforms, to receive messages from family, friends, co-workers, and acquaintances. The internet makes almost all kinds of communication possible, including mass communication (Smith & Hendricks, 2010; Stallkamp & Schotter, 2021). As a worldwide platform, the internet has removed all geographical boundaries with extensive global audience reach. Additionally, information dissemination is instant, more efficient and facilitated by the low cost associated with digital news content, unlike traditional media that involve printing and delivery costs (Onwuliri, 2019; Srividya & Thirunavukkarasu, 2016).

The internet provides users with the ability to make the reporting process more transparent as site visitors can see, hear, or read the reporting sources. It is not only a mass medium but also a global medium of communication with the potential to reach everyone across the globe (Ohiagu, 2011). The internet is the medium of mass media, considering its ability to enhance the performance of other media and their flexibility of usage, as well as its ability to empower the audience as active users through interactivity. Interactivity is one of the key features of the internet as it gives users the chance and ability to provide feedback (Folayan, 2004; Nedumkallel, 2020; Oluseyi, 2004; Sajjad, 2013; Smith, 2005). In essence, the internet has revolutionized the way news content is distributed and consumed (Hassan & Azmi; 2018; Patel, 2010; Chan & Fang, 2007). It enables immediate delivery of news and thus allows readers to receive news in real-time and stay constantly updated. Patel found that digital news is highly valued by readers as it meets their ever-changing demand for news. The internet gives readers options to choose from an abundance of news to select from, most of which is available for free (Abbey, 2019; Ekeanyanwu, Batta, & Oyokunyi, 2017).

Furthermore, the internet provides readers with the technical ability to access information, examine news sources, and interact through a natural conduit beyond the scope of other media. For publishers, the internet removes geographical boundaries and opens up all news websites to a global population, and allows for content translation to various languages. Patel (2010) found that newsgathering constitutes 35% of the costs while providing digital news is at a zero marginal cost. For advertisers, online advertising rates are very low in comparison to print advertising. Besides, the internet has put research at the fingertips of journalists. Reporters can access or surf the net to back up stories that require certain facts and detailed explanations of certain issues. The platform also enables reporters to get reports from other media organizations across the globe (Ekhareafu, Asemah, & Edegoh, 2013; Machill & Beiler, 2009). Journalists can gather news via the internet and perform fact-checking or inquiries into facts and figures or background information from their homes or offices (Ekhareafu et al., 2013; Salman, Ibrahim, Yusof, Mustaffa, & Mahbob, 2011). Due to numerous advantages of the internet, traditional media outlets shift to online environments (Huang, 2009; Mbozi, 2021; Smith, 2005).

While news websites on the internet provide news and information, on the other hand, users communicate via social networks. For example, users follow friends, publishers, organizations, renowned journalists, and industry experts via social networks (Islam & Ahsan, 2020). Patel, (2010). News and information witnessed tremendous growth in the late twentieth century when the internet changed the face of delivery and accessibility of news and information (Smith & Hendricks, 2010). Additionally, the internet allows politicians to

circumvent journalists by creating a direct line of communication with their constituents unrestricted by the norms and constraints of traditional print and broadcast journalism. Although the 24-hour news events are more heavily defined by journalists in their never-exhausted quest to get stories, on the internet, politicians can communicate with citizens outside of the journalism environment. Politicians own websites and online forums to generate a direct line of communication with citizens (Axford & Huggins, 2001).

The internet is a multi-modality communication technology that allows and facilitates the flow of all kinds of messages. It is the only media platform that provides for many-to-many messaging, a key change that facilitates the rapidity and breadth of the transmission of media communications. As a global media platform, the internet expands the kind of content people can share or exchange (text, audio, and video) as well as increases the repertoire of message flows. Likewise, the internet extends communication beyond synchronous person-to-person exchanges to communication involving an enormous and growing number of users. Messages are transmitted along feed-forward paths enabled by the internet, including social media, mass e-mail and web services, social bookmarks, instant messenger, and net-to-mobile texting services (Smith & Hendricks, 2010).

New media technology influences every aspect of the traditional media world. The mere ability to access information and receive instant updates via the internet has threatened the existence of print newspapers (Cherian & Jacob, 2013; Mbozi, 2021; Patel, 2010). This situation has been growing challenges for newspaper publishers. For example, while content acquisition and distribution may be easier today, many media outlets are struggling with the financial burden that “going digital” requires (Patel, 2010; Smith & Hendricks, 2010). Therefore, this paper highlights the challenges faced by newspapers in the age of digital communication and how publishers can utilize digital technology to expand readership and maximize subscription and advertising revenues.

Print Vs Online Newspapers

Several studies across the world were conducted to investigate and predict the future of print media, especially newspapers, as the internet penetrates (e.g. Chari, 2009; Cherian & Jacob, 2012; Chyi & Ng (2020); De Waal, Schönbach, & Lauf, 2005; Everett, 2011; Hassan & Azmi, 2018; Hassan, Azmi, & Yahaya, 2018; Ihlström & Lundberg, 2002; Islam & Ahsan, 2020; Mbozi, 2021; Smith, 2005; Speakman, 2011; Thurman, 2014). These studies focus on readership preferences, popularity, reading time, and interactivity of online newspapers. Most of the studies found that the internet has impacted the readership of print newspapers significantly, and hence publishers must embrace new technology to survive. For instance, Findahl (2008) employed a quantitative method to examine the impacts of the internet on traditional media in Sweden and Nordic countries (Finland, Denmark, Iceland, and Norway). The study showed that in some countries, the internet severely affected the use of print media, while in some countries it has merely become a supplement, and the use of traditional media did not change. These findings indicate that the internet affects traditional media in these countries differently.

According to Findahl (2008), the Nordic countries are known to have a very strong tradition of newspaper reading. Despite this strong reading culture, there was a decrease in newspaper reading from 1996 to 2002, and a small decrease from 2005 to 2006. However, the habits of print newspaper reading have changed very little in Sweden since the advent of the internet. In other Nordic countries, there was a decrease in daily newspaper circulation in all countries, most evidently in Norway and Denmark, and smaller in Sweden and Finland.

There was strong evidence that the decline in newspaper circulation was related to the proliferation of the internet and new media. In 2002, Ihlström and Lundberg conducted a longitudinal study to describe the newspaper audience's demographic and reading habits as well as their perceptions of the online version of Swedish local newspapers. The study found that one-third (32.9%) of the readers agreed that print newspapers are easier to read than online versions, while another one-third did not agree and the rest did not perceive any difference. The findings further revealed that subscriptions to online newspapers increased from one-fourth to more than half, while more than 80% of the readers prefer the print edition of the newspaper. However, the findings indicated that the readers are further interested in a multimedia paper edition in the future. This outcome shows that online newspaper was in the rise when the study was conducted.

In 2005, Smith used content analysis to compare the content of print and online newspapers to explore the uniqueness of content and information. Additional or different content could include photos, graphics, multimedia, or interactive components. The study found that although the text of stories was substantially the same in all but a few cases, a larger percentage ran under different headlines in print and online versions. There were differences between online and print stories in terms of headlines. Some unique elements that could not be produced in print were found in online newspapers, such as videos and comment sections. The study showed that about one-third of the stories contained the same elements in both print and online versions.

Moreover, Lucena (2011) examined the perceived causal relationship between the decline in print newspaper circulation and the proliferation of the internet concerning economic downturns between 2000 and 2009 on a global scale. Six countries were selected for analysis, namely: Canada, United States, Netherlands, Japan, Brazil, and India. The findings revealed that in Canada and United States, the consistent increase in internet penetration rates is matched by the consistent decline in newspaper circulation on a more year-by-year focus. Also in the Netherlands, internet penetration spiked both in 2002 and 2005 with no considerable effect on newspaper circulation, even though the overall correspondence between the newspaper circulation and the internet penetration is clear during the period. The inverse relationship observed in other developed countries was also found in Japan, but this relationship was not sharply defined. In Brazil, the internet penetration appears to have an impact on newspaper circulation inversely during the whole period in a year-by-year focus except 2005. Nevertheless, internet penetration in India is so low that a high year-by-year variation may not represent a meaningful increase even with the high population considered.

A study conducted by Graham and Hill (2009) also examined how the internet impacts the process of production and distribution of newspapers in the UK using semi-structured interviews. The findings showed that newspapers started to use the internet as an operant resource and work proactively with consumers to develop various forms of relationship value. The internet's influence on print newspapers is considerable. The findings also indicated that although the newspaper industry was moving towards co-creating values with its consumers through internet mechanisms such as blogs and discussion forums, it was still very much at the customization stage during the period. The study highlighted the role of consumers in creating news content and consumer-driven moves toward a multimedia platform of distribution.

Via telephone survey, Bressers and Meeds (2007) measured the level of integration between the traditional print newspaper and its online counterpart, and its effect on the quality of traditional journalism in the US. The research looked at five areas thought to have

an impact on print-online integration: organizational and management issues, communication and attitudinal issues, physical proximity, and equipment-sharing issues, workflow, and content issues, as well as newspaper circulation. The findings showed that print newspaper circulation was not positively related to the measures of successful integration, and to some extent, newspapers with converged news desks were better integrated because of print and online staffers in physical proximity. The study also found that efforts to integrate print and online products were underway. With the introduction of online newspapers, not only is news reported faster, but additional evidence suggests that the quantity and quality of reporting are better (Franceschelli & Gentzkow, 2011). However, Mbozi (2021) found that cost and the need for timely updates were the major weaknesses of traditional newspapers rather than credibility or quality of content.

In some countries, the effects of online news on print newspaper readership were found to be manageable (Hassan et al., 2018; Salman et al., 2011). In Malaysia, people read print newspapers even with the presence of online newspapers. According to Salman et al. (2011), the mainstream newspapers in Malaysia are challenged in many aspects, but against all odds, they continue to stay and remain as the first important reading material for Malaysians. Similarly, Everett (2011) found that 50.5% of news readers favored online newspapers, while 32.7% preferred reading print newspapers to their online counterparts. Thurman (2014) also conducted a comparative longitudinal study on newspaper consumption in the digital age of communication. The study concentrated on measuring multi-channel audience attention and brand popularity among UK print newspapers. The study found that print newspapers were still popular. The findings also revealed that readers spend approximately 96.7% of their news reading time in print.

There is a competitive media landscape, and most importantly, the emergence of online newspapers has radically changed the way news is constructed and disseminated. Ekareafo et al. (2013) examined the challenges of newspaper management in the age of Information and Communication Technology (ICT) in Nigeria. The findings revealed while ICTs may have influenced the practice of journalism substantially, they have strongly posed several challenges to the management of newspapers in Nigeria. Okeke, Nwachukwu, and Ajaero (2013) argued that the survival of newspapers depends on how they adjust to the digital environment. Abdulraheem, Adisa, and Abdulkadir (2012) employed a survey method to examine the future of print media in the information age in Nigeria. The study showed that online newspapers were significant sources of news. Okonofua (2012) used a survey method to examine the level of exposure and satisfaction with online newspapers among cyber cafés users in Nigeria. According to the findings, 50% of the readers read online newspapers frequently, while only 7.5% seldom read online newspapers. It was also evident that online newspaper readers also read print newspapers.

In 2011, Speakman (2011) studied the believability and accuracy of print and online news. The study tested if those who read online news more would consider print newspapers to be less believable and accurate than those who read online news less. According to the study, those who read online news for more than 15 minutes a day believed that print newspapers are less accurate and less believable than those who read online news less. Likewise, Hassan and Azmi (2018) determined the extent of readership preferences for print and online newspapers in Nigeria. The findings showed readers moderately prefer online newspapers to their print counterparts. Further, readers were confident that print newspapers will continue to survive despite the availability of online versions. Also, research shows that readers' demography is a significant determinant of preferences for print and

online media. In this regard, Cherian and Jacob (2012) found that there is a significant relationship between respondent demographics and choice of preferred media. The readers, especially youths, prefer online media to print media and agree that there is a need for print media to adapt to a certain degree of change.

Another study examined how online newspaper reading relates to the use of other information channels, particularly print newspapers, as well as the extent to which online newspapers affect print newspaper readership (De Waal et al., 2005; Hassan et al., 2018). According to the study, young people prefer to read online newspapers to their print counterparts, and therefore online newspaper reading is negatively related to print newspaper reading, but to a small extent, and in terms of mere contact, not in terms of reading time. The study concluded that print and online newspapers can better be described as complementary to each other. Nevertheless, there are indications that print newspapers as a source of information are threatened. The continuous decline in print newspaper readership since the 1970s has been augmented by the advent of online newspapers. Additionally, Chari (2009) examined the reading habits of newspaper readers in Zimbabwe using a survey method and in-depth interviews to ascertain whether the internet threatens the survival of print newspapers. The study found that print newspapers were still popular. According to the study, many readers printed news articles from websites to read them later, which indicates that print newspaper was still the preferred medium.

The findings of Chari further revealed that most of the print newspapers in Zimbabwe do not publish online editions identical to the print editions. The author argues that there was no evidence to suggest readers would substitute print newspapers with their online counterparts. Santana et al. (2011) also examined the variation of newspaper readers' recollection of news stories by mediums. The study revealed that the development of dynamic online newspapers has had little effect on the popularity of print newspapers. According to Chari (2009), replacing print newspapers appeared to be a remote possibility in Africa due to certain factors such as the high cost of internet penetration which imposes serious obstacles to internet diffusion. To sum up, the foregoing review suggests that the future of print newspapers may be unclear, but online newspapers will not completely replace traditional newspapers. Print newspaper publishers are now responding to the new changes and complexity of the media industry. This is because the content of both print and online newspapers matters to readers (Obijiofor & Green, 2001; Hassan, Azmi, & Atek, 2015).

Challenges and Opportunities for Print Newspapers

With the advancement in new technology, print newspapers are faced with serious challenges from various sources, such as the introduction of online newspapers, social media platforms, mass e-mail, and web services (Cherian & Jacob, 2013; Hassan et al., 2018; Islam & Ahsan, 2020; Mbozi, 2021; Smith & Hendricks, 2010). The advent of the internet, generally, has caused great competition between online and traditional news platforms which threatens the survival of print newspapers (Tommy, 2014). While news websites provide news and information, users communicate via Social Networking Sites (SNSs). Additionally, exponential growth and availability of internet access via various devices, such as cellular phones, laptops, and iPads, have made online news platforms more accessible. Other internet features that create values for online news platforms and de-values for print newspapers include interactivity, multimediality, hypertextuality, timely updates, limitless capacity to store news stories, interactive graphic elements, and direct quotation of voice or videos (Ihlström, 2005; Sajjad, 2013).

As explained earlier, most readers now prefer online news platforms to traditional news for several reasons. Online platforms are mostly free, “quickly updated, easy to navigate, interactive, searchable, filterable, containing graphics and videos, providing much more information than newspapers for optional in-depth reading” (Huang, 2009, p. 116). This situation is one of the greatest challenges facing the print media generally and print newspapers in particular. This is because certain contextual elements, such as audios, video clips, comment sections, hypertext, hyperlinks, are not available in print media. These elements make online content more accessible, transparent, and interactive compared to traditional media content (Mathew, Ogedebe, & Adeniji, 2013). Therefore, newspaper publishers must embrace technology to claim widespread content delivery (Hassan et al., 2015). However, one of the major challenges is that publishers need a lot of sacrifices to strategize to maximize revenues in the digital environment (Angelucci & Cagé, 2019; Islam & Ahsan, 2020) Some of the major challenges facing print newspapers are enumerated as follows.

Table 1
Challenges faced by newspapers

SN	Challenges	Empirical Evidence
1	High cost of production and distribution of traditional newspapers. Papers constitute 80-85 percent of newspaper production cost	Onwuliri (2019) Srividya & Thirunavukkarasu (2016)
2	The need for updates in real-time. One of the major weaknesses of traditional newspapers lack of timely updates	Hassan et al. (2018) Huang (2009)
3	There is a general decline in reading culture globally	Hassan (2015) Huang (2009)
4	Traditional newspapers do not have certain features such as video clips, audios, and hyperlinks, and translation options	Ihlström (2005) Sajjad (2013) Mathew et al. (2013)
5	Traditional newspapers are not interactive; they are one-way communication media that do not have user comment sections	Ihlström (2005) Sajjad (2013) Smith (2005)
6	For readers, the cover prices of traditional newspapers are high. Online platforms offer news and information to the readers for free or at lower costs	Abbey (2019) Ekeanyanwu et al. (2017) Mbozi (2021)
7	Since readers of online news are accustomed to free news, publishers need to strategize ways to maximize revenues	Ekeanyanwu et al. (2017) Islam & Ahsan (2020)

		Sajjad (2013)
8	Advertisements constitute a high portion of revenues in traditional newspapers. The decline in print newspaper readership affects revenues generated from sales and advertisement	Angelucci & Cagé (2019) Yun et al. (2018)

Although the internet has posed huge challenges to traditional newspapers in most countries (Agboola, 2014; Ekeanyanwu et al., 2017; Islam & Ahsan, 2020; Okoro & Diri, 2012; Phipps, 2010; Sajjad, 2013), it provides various opportunities for newspaper publishers (Abbey, 2019; Angelucci & Cagé, 2019; Mbozi, 2021; McClure, 2010). However, publishers are missing powerful opportunities for competition. Traditional newspapers have a long tradition of providing accurate, reliable, and current news that contains thought-provoking and informative content through news articles, features, editorials, sub-editorials, analyses, and observations (Abbey, 2019; Akanda & Haque, 2013; Hassan, 2015; Ihström, 2005; Mathew et al., 2013). The following values create immense opportunities for newspaper publishers if they embrace new technology.

Table 2

Opportunities for newspapers

SN	Opportunities	Empirical Evidence
1	Because of the abundance of information available on online platforms, differences between genuine news and rumor or fake news is often difficult to distinguish. By integrating the web, newspapers can play a significant role in providing credible information, which could increase their popularity	Abbey (2019) Akanda & Haque (2013) Dominick (2007) Mathew et al. (2013) Mbozi (2021) Nguyen & Western (2006) Sajjad (2013)
2	In today's digital age, newspapers have the opportunity to provide both print and online news. Thus, newspapers can expand their reach because a relatively large number of readers, especially old people, are still loyal to the broadsheet. Some people read both print and online versions	Abbey (2019) Abdulraheem et al. (2012) Chari (2009) De Waal et al. (2005) Hassan & Azmi (2018) Okonofua (2012)
3	Traditional newspapers do not require internet access. Thus, for readers who do not have access	Abbey (2019) Thurman (2014)

	to the internet, reading print newspapers is still the best option	Sajjad (2013)
4	Through full integration of new technology, newspapers can attract advertisers for both print and online versions. Advertisers still spend on the print model, especially national newspapers. Print drives most of the advertising revenue	Angelucci & Cagé (2019) Ihlström & Palmer (2002) Patel (2010) Pavlik (2013)
5	In online platforms, real-time updates are constant, but important news feeds often go unnoticed as they are forced out of the limelight with the latest update. Traditional newspapers do not have this disadvantage	Hassan (2015) Jun (2012) Sajjad (2013)
6	Most elder people are not conversant with new technology, and hence traditional newspapers can satisfy their news demand	Cherian and Jacob (2012) Hassan et al. (2018) Thurman (2014)
7	Due to economic reasons, some readers opt for traditional news because of the cost of internet and web browsing devices	Chyi & Ng (2020) Sajjad (2013) Tewari (2015)
8	Newspaper reporters can gather news from online platforms and perform fact-checking from their homes or offices	Ekhareafo et al. (2013) Machill & Beiler (2009) Salman et al. (2011)

In today's fake news era and highly competitive media industry, by taking advantage of digital technology, newspapers could equip readers with reliable information, knowledge, and insights that will give them the needed advantage over other forms of media. This effort could also help readers achieve an unbiased and informative worldview (Patel, 2010). Newspapers can successfully coexist with new media in the digital environment at least within the provision of news and information (Abbey, 2019; Chyi & Ng, 2020; Dominick, 2007; Hassan & Azmi, 2018; Mathew et al., 2013). Rather than driving out traditional newspapers, "the internet will complement them in serving the seemingly insatiable news and information needs among a substantial segment of society" (Nguyen & Western, 2006, p. 16). The major issues with traditional newspapers include production costs and a lack of timely updates rather than credibility or content quality (Mbozi, 2021).

Conclusion

This paper reviewed the challenges facing newspapers in the age of digital communication and how publishers can take advantage of digital technology to expand readership and maximize subscription and advertising revenues. The outcomes of this review revealed that

challenges faced by newspapers in the age of digital communication include the general decline in reading culture globally, lack of interactivity, readers' preference for free news, and the need to minimize the cost of production and distribution as well as provide timely updates. On the other hand, newspaper publishers can take advantage of new media technology by integrating the web and combine both print and online newspapers to provide credible information, expand their reach. This is because a relatively large number of people read both print and online versions. Additionally, maintaining print and online newspapers could help newspapers to attract advertisers for both versions. Online platforms also provide opportunities for journalists to gather news and perform fact-checking from their homes or offices.

This review was an attempt to contribute to the body of knowledge on the challenges and opportunities for newspapers in the age of digital communication. It was also intended to provide insights into the use of online platforms for news and information and why readers choose to read news on particular platforms. The outcomes of this review could help newspaper publishers to make rational decisions on how to overcome challenges and utilize digital technology properly. It also adds to the existing literature in the field of mass communication and journalism. Additionally, this review would enlighten practicing journalists on the role of online platforms in promoting the journalism profession. Also, advertisers who are desirous of making decisions on choosing appropriate platforms for advertisements may find this review useful. The information provided in this review will also be of benefit to newspaper selecting the preferred medium for news and information. However, the focus of this review is limited to traditional newspapers, further research may focus on the opportunities and challenges facing broadcast media outlets, particularly radio and television, in the same context.

References

- Abbey, T. N. A. (2019). *The future of newspapers in a digital era: A study of Daily Graphic and Daily Guide* (Doctoral dissertation). University of Ghana, Ghana.
- Abdulraheem, M., Adisa, R. M., & Abdulkadir, O. L. (2012). Information technology revolution and the future of print media in Nigeria: usage across age groups. *Advances in Management, 10*(1), 29-40.
- Agboola, A. K. (2014). The influence of new media on conventional media in Nigeria. *Academic Research International, 5*(4), 105-113.
- Akanda, E. A., & Haque, A. (2013). *Newspaper reading habits of university graduate students in Bangladesh: A case study. International Journal of Research in Applied, Natural and Social Sciences, 1*(3), 1-8.
- Angelucci, C., & Cagé, J. (2019). Newspapers in times of low advertising revenues. *American Economic Journal: Microeconomics, 11*(3), 319-64. doi: 10.1257/mic.20170306
- Axford, B., Huggins, R. (2001). *New media and politics* (1st ed.). London: SAGE Publications.
- Bressers, B., & Meeds, R. (2007). Newspapers and their online editions: Factors that influence successful integration. *Web Journal of Mass Communication Research, 1*(10).
- Chan, K., and Fang, W. (2007). Use of internet and traditional media among young people. *Young Consumers, 8*(4), 244-256.
- Chari, T. (2009). The future of the printed newspaper in the context of the internet in Africa: The case of Zimbabwe. Retrieved from: wjec.ru.ac.za/index.php?option=com_rubberdoc&view=doc

- Cherian, J., & Jacob, J. (2012). Analysis of attitude towards online and print publications: A case study among university students. *Asian Social Science*, 9(1), 52-59. doi: 10.5539/ass.v9n1p52
- Chyi, H. I., & Ng, Y. M. M. (2020). Still unwilling to pay: An empirical analysis of 50 US newspapers' digital subscription results. *Digital Journalism*, 8(4), 526-547. doi:10.1080/21670811.2020.1732831
- De Waal, E., Schönbach, K., & Lauf, E. (2005). Online newspapers: A substitute or complement for print newspapers and other information channels? *The European Journal of Communication Research*, 1(30), 55-72.
- Dominick, J. R. (2007). *The dynamics of mass communications: media in the digital age* (9th ed.). Boston: McGraw Hill.
- Ekeanyanwu, N. T., Batta, H., & Oyokunyi, J. I. (2017). The economics of decline in the media industry: survival strategies of American print media firms and implications for a diminishing print media industry in Nigeria. *Journalism and Mass Communication*, 7(8), 427-445.
- Ekharefo, D. O., Asemah, E. S., & Edegoh, L. O. N. (2013). The challenges of newspaper management in information and communication technology age: The Nigerian situation. *British Journal of Arts and Social Science*, 13(1), 1-14.
- Everett, C. E. (2011). Transformation of newspapers in the technology era. *The Elon Journal of Undergraduate Research in Communications*, 2(2), 102-115.
- Findahl, O. (2008). *The diffusion of the internet and the effects on traditional media: The case of Sweden and the Nordic Countries*. London: World Internet Institute.
- Folayan, O. O. (2004). *Interactivity in online journalism: A case study of the interactive nature of Nigeria's online guardian* (Doctoral dissertation). Rhodes University, Grahamstown.
- Franceschelli, I., & Gentzkow, I. T. M. (2011). *When the ink is gone: The impact of the internet on news coverage*. Retrieved from: core.kmi.open.ac.uk/display/23910531
- Graham, G., & Hill, J. (2009). The regional newspaper industry value chain in the digital age. *OR Insight*, 22(3), 165-183. doi: 10.1057/ori.2009.5
- Hassan I. (2015). Readers' preferences for print and online newspapers in Northwestern Nigeria: A Study of Daily Trust (Unpublished Master's thesis). Universiti Sultan Zainal Abidin, Malaysia.
- Hassan, I., & Azmi, M. N. L. (2018). Readers' preferences for print and online newspapers in Northwestern Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 9(6), 965-974. doi:10.6007/IJARBS/v8-i6/4294
- Hassan, I., Azmi, M. N. L., & Atek, E. S. (2015). Measuring readers' satisfaction with online newspaper contents: A study of Daily Trust, *American Journal of Innovative Research and Applied Sciences*, 1(8), 304-311.
- Hassan, I., Latiff, M. N., & Yahaya, Q. (2018). The survival of Nigerian newspapers in digital age of communication. *International Journal of Asian Social Science*, 8(9), 631-637. doi:10.18488/journal.1.2018.89.631.637
- Huang, E. (2009). The causes of youths' low news consumption and strategies for making youths happy news consumers. *Convergence*, 15(1), 105-122. doi: 0.1177/1354856508097021
- Ihlström, C. (2005). *The e-newspaper innovation-converging print and online*. Paper presented at the International Workshop on Innovation and Media: Managing changes in Technology, Products, and Processes, Stockholm, Sweden.

- Ihlström, C., & Lundberg, J. (2002). *The Audience of Swedish Local Online Newspapers: A Longitudinal Study in Technology interactions*: Paper presented at the 6th International Conference on Electronic Publishing, Karlovy Vary, Czech Republic.
- Ihlström, C., & Palmer, J. (2002). Revenues for online newspapers: owner and user perceptions. *Electronic Markets*, 12(4), 228-236. doi:10.1080/101967802762553486
- Islam, K. M. A., & Ahsan, A. (2020). Newspapers of Bangladesh in the Digital Age: Strategies and Applications. *Journal of ELT and Education*, 3(4), 124-134.
- Jun, N. (2012). Contribution of Internet news use to reducing the influence of selective online exposure on political diversity. *Computers in human behavior*, 28(4), 1450-1457. doi: 10.1016/j.chb.2012.03.007
- Lucena, A. A. (2011). *The print newspaper in information age*. *Journal of Proceedings of the Media Ecology Association*, 12(1), 53-74.
- Machill, M., & Beiler, M. (2009). The importance of the Internet for journalistic research: A multi-method study of the research performed by journalists working for daily newspapers, radio, television and online. *Journalism Studies*, 10(2), 178-203. doi: 10.1080/14616700802337768
- Mathew, J., Ogedebe, P. M., & Adeniji, S. B. (2013). *Online newspaper readership in North-Eastern Nigeria*. *Asian Journal of Social Science and Humanities*, 12(2), 230-238.
- Mbozi, P. (2021). Displacement and Substitutability Effects of Online Newspapers on Traditional Media: A Zambian Perspective. In H. S. Dunn, D. Moyo, W. O. Lesitaokana, S. B. Barnabas (eds). *Re-imagining Communication in Africa and the Caribbean* (pp. 235-254). Palgrave Macmillan, Cham. 10.1007/978-3-030-54169-9_13
- McClure, J. C. (2010). Challenges and opportunities, new models, and the emergence of the next newsroom: The twenty-first-century media industry. *Economic and Managerial Implications in the Age of New Media*, 1(2), 147-172.
- Nedumkallel, J. P. (2020). Interactivity of digital media: Literature review and future research agenda. *International Journal of Interactive Communication Systems and Technologies (IJICST)*, 10(1), 13-30. doi:10.4018/IJICST.2020010102
- Nguyen, A., & Western, M. (2006). The complementary relationship between the internet and traditional mass media: The case of online news information. *Information Research*, 11(3), 8-20.
- Obijiofor, L., & Green, K., (2001). New technologies and future of newspapers, *Asia Pacific Media Educator*, 1(11), 88-99.
- Ohiagu, O. P. (2011). The internet: The medium of the mass media. *Kiabara Journal of Humanities*, 16(2), 225-232.
- Okeke, I., Nwachukwu, C. A., & Ajaero, C. K. (2013). The implication of the rise in social networking sites on the newspaper industry in Nsukka Urban Area, Nigeria. *Greener Journal of Internet, Information and Communication System*, 1(3), 079-086.
- Okonofua, A. G. (2012). Readership of online newspapers by users of select cyber cafés in Uyo Urban. Paper presented at the Pre-Conference of International Federation of Library Association, Mikkeli, Finland.
- Okoro, N., & Diri, C. T. (2012). The challenge of online newspaper phenomenon to offline newspaper patronage and revenue in Nigeria. Retrieved from: www.academicexcellencesociety.com/journals.html
- Oluseyi, F. (2004). *Interactivity in online journalism: A case study of the interactive nature of Nigeria's online Guardian* (Unpublished Master's thesis). Rhodes University, South Africa.

- Onwuliri, E. C. (2019). A look at the major challenges facing the newspaper today. *International Journal of Social, Politics, and Humanities*, 4(1), 58-62.
- Patel, A. (2010). *The survival of newspaper in the digital age of communication* (Doctoral dissertation). New York University, United States.
- Pavlik, J. V. (2013). Innovation and the Future of Journalism. *Digital journalism*, 1(2), 181-193. doi:10.1080/14241277.2014.974244
- Phipps, S. (2010). Changes and challenges in the print industry: The new landscape of the print media. *Economic and Managerial Implications in the Age of New Media*, 2(2), 133-148.
- Sajjad, Z. (2013). A study on latest trends in e-newspapers and e-news services in the electronic era. *International Journal of Marketing, Financial Services and Management Research*, 2(2), 120-132
- Salman, A., Ibrahim, F., Yusof H. A. M., Mustaffa, N., Mahbob, M. H. (2011). The impact of new media on traditional mainstream media. *The Innovation Journal*, 16(3), 1-11.
- Santana, A. D., Livingstone R., and Cho, Y. (2011). *Medium matters: newsreaders' recall and engagement with online and print newspapers*. Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication, St. Louis, United States.
- Smith, J. E. (2005). *Content differences between print and online newspapers* (Master's thesis). University of South Florida, United States.
- Smith, S., & Hendricks, J. A. (2010). New media new technology, *new ideas or new headaches*. *Economic and Managerial Implications in the Age of New Media*, 1(2), 3-23.
- Speakman, B. (2011). Print vs. online journalism: are believability and accuracy affected by where readers find information? Retrieved from: <http://digitalcommons.unl.edu/journalismdiss>
- Srividya, B., & Thirunavukkarasu, V. (2016). Investigation of Quality Parameter for Newspaper Printing & Optimizing the Six Colour Cold Set Web Offset Machine to Minimize the Paper Waste and to bring Down Carbon Foot Print through Process Optimization. *Asian Journal of Research in Social Sciences and Humanities*, 6(8), 936-947. doi: 10.5958/2249-7315.2016.00662.6
- Stallkamp, M., & Schotter, A. P. (2021). Platforms without borders? The international strategies of digital platform firms. *Global Strategy Journal*, 11(1), 58-80. doi: 10.1002/gsj.1336
- Tewari, P. (2015). The habits of online newspaper readers in India. *Intermedia International E-Journal*, 2(2), 20-31.
- Thurman, N. (2014). Newspaper consumption in the digital age: Measuring multi-channel audience attention and brand popularity. *Digital Journalism*, 2(2), 156-178. doi: 10.1080/21670811.2013.818365
- Tommy, S. (2014). Nigerian newspapers and survival in the digital age: African trends. *Rhodes Journalism Review*, 1(34), 88-90. doi: 10.10520/EJC159488
- Yun, G. W., Morin, D., Ha, L., Flynn, M., Park, S., & Hu, X. (2018). A pillar of community: Local newspapers, community capital, and impact on readership and advertising. *Community Development*, 49(5), 522-538. doi:10.1080/15575330.2018.1547916