
DIGITALIZATION AND MEDIA CONVERGENCE IMPLICATION IN THE RADIO BUSINESS WITH WEB DEVELOPMENT AND STREAMING APPLICATIONS

Astrid Noviana Paradhita¹

Dinda Ayu Oktavia²

^{1,2}Universitas Sebelas Maret, Indonesia

Correspondence information: astrid.noviana@staff.uns.ac.id

ABSTRACT

In the era of digitalization like today, everyone is made easier by various rapidly growing technologies. Information and communication technology development has made analog communication systems adapt and transform into digital information and communication systems. Business industries engaged in information media, such as Radio, are not spared from this phenomenon. Radio can be threatened by the existence of various digital platforms that facilitate public access to information. Therefore, This research was conducted to optimize the broadcasting technology for Radio business to remain in demand by the public. One of the strategies taken by the radio industry is to carry out media convergence. One of the radio businesses that has implemented media convergence is PTPN Radio Solo. The research is carried out by applying research methods that have been designed so that research can be carried out in a structured manner. This research was carried out using a case study research design, data collection through observation and interviews, and qualitative descriptive discussion methods. PTPN Radio Solo has successfully implemented broadcast digitalization using streaming websites and the Noice streaming application. Media convergence has also penetrated social media, which is popular with young people. After implementing media convergence, PTPN Radio Solo can increase its market. The number of clients interested in advertising on PTPN Radio Solo evidences this.

Keywords: Media convergence, radio business, digitalization, streaming applications

INTRODUCTION

In the era of digitalization like today, everyone is made easier by various rapidly growing technologies. Technology, the internet, and social media have significantly changed human civilization. The impact caused is inevitable because technology can make it easier for people to Activity (Alsaleh, 2024).

Information and communication technology development has made analog communication systems adapt and transform into digital information and communication systems (Kraus et al., 2021). This is done so consumers continue to choose the media to get information or entertainment by adjusting to internet technology (Brahmbhatt & Shah, 2023). Business industries engaged in information media, such as Radio, are not spared from this phenomenon. Radio can be threatened by the existence of various digital platforms that facilitate public access to information. Therefore, Radio needs to develop its broadcasting technology to remain in demand by the public (Hirschmeier et al., 2019).

According to (Widyawati et al., 2019), radio is a cheap, popular, and auditive media (can only be heard). Radio functions as a medium of communication, entertainment, expression, and education. Radio also has considerable power as an imaginative medium, as radio can be said to be a blind medium. Radio can stimulate many sounds that make the audience try to visualize the broadcaster's voice (Samarakoon et al., 2023) .

In maintaining the existence of radio in the digital era, breakthroughs are needed for conventional media to maintain their business (Aspar & Anshar, 24 C.E.). One of the strategies taken by the radio industry is to carry out media convergence. Media convergence is merging various forms of communication media, such as print media, electronic media, and telecommunications, which are combined into one platform (F. Magnaye & E. Tarusan, 2023)(Asy'ari, 2019). This is corroborated by the statement from (Rachmadiani & Fanshoby, 2023) that media convergence results from a slice of new media elements, namely communication networks, information technology, and media content. The emergence of media convergence is in line with technological advancements, especially the transition from analog to digital technology (Skare & Riberio Soriano, 2021). According to (Gd, 2023) media convergence is a continuous process of intersecting content, technology, audience, and industry.

Grant theory 2009 also explains that media convergence has three primary forms. The first form is known as newsroom convergence (Herzhoff, 2009). In this type of convergence, a mass media journalist in a different media platform (newspaper, online, radio, and television) is integrated into one newsroom to produce news that can be accessed on all platforms. Second, is newsgathering convergence, where in this type of convergence, a journalist must be able to multitask by participating in training or training (Khan & Din, 2022). Through training, journalists are expected to be able to master various skills needed to be implemented on other platforms within the same group. For example, a broadcaster must also be able to create daily content to greet the audience through social media. Third is content convergence, which focuses on delivering media content in the form of multimedia

by uniting aspects of sound, images, videos, texts, websites, and others (Firdausi et al., 2022)(Alawa, 2023).

The application of media convergence in the radio industry combines conventional radio with digital radio. In this case, radio is not only broadcast through radio waves with analog signal transmission but also uses streaming media that use the internet to broadcast. One of the radio businesses that has implemented media convergence is PTPN Radio Solo.

PTPN Radio Solo is one of the old radios in the city of Solo, and it is now 57 years old. PTPN Radio Solo broadcasts effectively for 18 hours daily, reaching several areas such as Solo, Sragen, Kartasura, Klaten, Wonogiri, and Karanganyar. With programs and inserts played alternately and continuously new, PTPN Radio Solo is always trying to expand its market share. Inserts in radio programs consist of songs, public service information, and advertisements on PTPN Radio Solo. In music broadcasts, PTPN Radio Solo has song compositions, namely hit songs (50% Indonesian songs, 50% Western songs), which are packaged with the request the day method.

Entering the digital era, PTPN Radio Solo emphasizes market segmentation by targeting young adults as its target audience. In the era of media convergence, PTPN Radio uses social media, other supporting applications, and radio websites to support its business processes. This study will discuss how to implement the convergence of social media used by PTPN Radio Solo, such as Instagram, Facebook, X (Twitter), and TikTok, as well as its important role in reaching the market segmentation that has been determined. In addition, this study will also analyze the use of supporting applications in radio broadcasts on PTPN Radio Solo and the quality of communication services implemented by PTPN Radio Solo with its audience.

RESEARCH METHODS

The research is carried out by applying research methods that have been designed so that research can be carried out in a structured manner. Citations said research methods are important in ensuring research runs based on scientific theories. In addition, with the existence of research methods, researchers can guarantee that the research output can have a high level of validation and accuracy (Asenahabi, 2019)(Oranga & Matere, 2023).

Research Design

The research design used by the researcher is a case study approach. A case study is a method used to examine and analyze facts related to a case (Priya, 2021) . The researcher used a case study research design better to understand the state of scope at PTPN Radio Solo. With this, researchers can adjust the relationship between the research object and the case raised. In addition, researchers also want to obtain detailed data using various data sources to obtain complete data or efforts that can be used as information to analyze and understand media convergence practices at PTPN Radio Solo.

Research Object

The object of research is a matter explored and researched during research. (NCRM, 2020) explained that the object of research is a variable that plays a role in the attention of

research to be carried out. The object of research can be in the form of people, objects, transactions, or events. In this study, the researcher researched PTPN Radio Solo with the research object, namely the media convergence strategy implemented by PTPN Radio Solo. The research location is on Jalan Saharjo/Kebalen No.2, Kampung Baru, Pasar Kliwon, Surakarta City, Central Java.

Types and Data Sources

This research uses qualitative data based on various facts found in the field and other data sources. The researcher collected data through direct observation and interviews with several parties related to the direct management of the media convergence system at PTPN Radio Solo.

Primary data is data that is directly obtained from the first party. Primary data can be interpreted as data collected, usually by observation and interview techniques (Ajayi, 2023). Meanwhile, according to Taherdoost (2021), primary data is data in the form of verbal or spoken words, gestures, or behaviors carried out by trustworthy subjects. Primary data was obtained by conducting interviews with several employees at PTPN Radio. Resource persons are employees related to the topic to be discussed by the researcher. In addition to interviews, the researcher made observations or observations directly at PTPN Radio Solo while carrying out internship activities for approximately three months. Table 1 shows the data of respondents who provided the data and information needed in the study.

Table 1. Respondent Data

Name	Position	Position	Responsibility
Ameen Fahrezi	Production Manager	Manager	Recording production at PTPN Radio Solo.
Monica Nares	Program Director & Announcer	Director	Broadcast programs on PTPN Radio Solo.
Abdul Halim	Digital Marketing, Web Content & Multimedia	Staff	Social media and content creation at PTPN Radio Solo
Rizka Wibowo	Music Director	Director	Making a song playlist at PTPN Radio Solo.
Isti	Content Creator	Staff	Creation of video content on PTPN Radio Solo's social media.
Ipunk Purnomo	Technician Manager	Manager	technical equipment at PTPN Radio Solo.

Source : Research Data, 2024

Secondary data is obtained from graphic documents (tables, notes, minutes, and meetings), photographs, films, video recordings, objects, and others that can enrich primary data (D.Lowry, 2015). In another sense Martins et al. (2018) defines secondary data as data obtained indirectly from other people or offices in the form of reports, profiles, manuals, or libraries. Secondary data is obtained through several documents related to research that

PTPN Radio Solo can provide. The data is in the form of company profiles, the PTPN Radio Solo website, the Noice application, and social media used by PTPN Radio Solo. In addition, researchers use literature studies and previous researchers available in various media.

Discussion Method

In this study, the researcher used a qualitative descriptive discussion method. Qualitative research is descriptive and uses analysis. Qualitative research usually highlights the perspective of the research's subject, process, and meaning using supporting theories to match the data in the field (Tomaszewski et al., 2020). In this study, the researcher uses a qualitative descriptive discussion method to examine the research object in non-numerical or qualitative data. This writing is carried out to provide information and an overview related to the strategy of implementing media convergence at PTPN Radio Solo. The researcher will also examine the media convergence strategy implemented by PTPN Radio Solo based on Grant 2009's theory.

RESULTS AND DISCUSSION

In its development, PTPN Radio Solo is one of the old radios in Solo. As a telecommunications and information service provider, it is not easy for PTPN Radio Solo to maintain its industry, especially in the all-digital era with increasingly rapid technological developments. Therefore, a strategy is needed to maintain radio so that it continues to exist amid the onslaught of technology like today.

Media convergence is one of the strategies known by conventional industries such as radio and print media. Media convergence has many different views and ways of applying it, but it still has the same goal. PTPN Radio Solo realizes that media convergence is needed to sustain its industry. Therefore, PTPN Radio Solo began to implement this strategy in 2015.

In the research, an interview process and direct observation of the research object are carried out. The researcher conducted interviews with several parties at PTPN Radio Solo related to the development of the convergence strategy that was carried out. Based on the interview results, the researcher knows and understands enough to understand the media convergence strategy at PTPN Radio Solo and what obstacles related parties face.

PTPN Radio Solo Media Convergence Strategy

a. Use of Digital Platforms

Digital platforms are one of the strategies PTPN Radio Solo uses to expand broadcast coverage. In today's digital era, people increasingly use the internet, which can be accessed anywhere easily. Based on the target audience of PTPN Radio Solo, namely "young adults," PTPN Radio Solo implements this strategy to reach its target audience. As is known, nowadays, young adults tend to use digital platforms rather than conventional ones.

The use of the website is one of the ways PTPN Radio Solo uses it. A website is an information page that anyone with an internet network can access with an extensive range. The PTPN Radio Solo website contains on-air broadcast streaming, show schedules, music

charts, podcasts, and news. The website makes it easier for the audience to find the services available at PTPN Radio Solo and what programs will be running and running. Figure 1 shows the display of online broadcasting on the PTPN Radio Solo website.

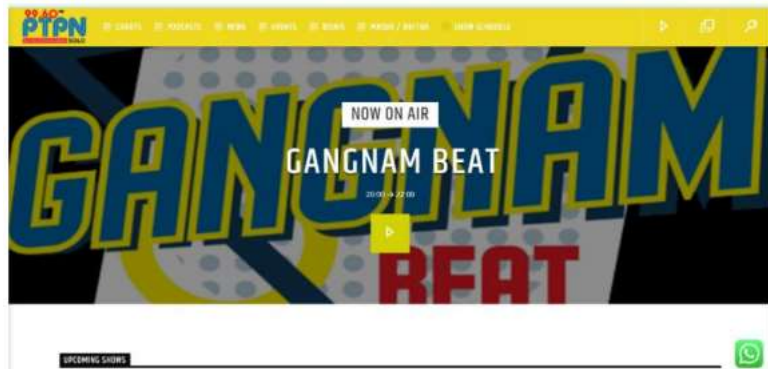


Figure 1. Online Broadcast Website

Source : ptpnradio.com, 2025

In addition to online broadcasts, PTPN Radio Solo also has information related to featured shows that can be accessed by the audience on the show schedule page. On the show schedule page, the audience can see several broadcast segments that air in one day. The segment is a theme that is broadcast at a predetermined time, namely from 06:00 to 24:00. Figure 2 is related to the program schedule page on PTPN Radio Solo.

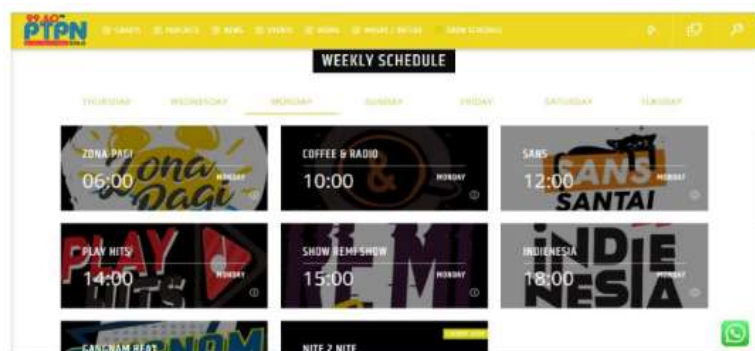


Figure 2. Show Schedule

Source : ptpnradio.com, 2025

The PTPN Radio Solo website also has a Chart Music page. Chart Music is a page that contains songs that are often played every week. The top 20 songs often played based on audience requests are displayed on this page. Figure 3 shows the music chart displayed on the PTPN Radio Solo website.

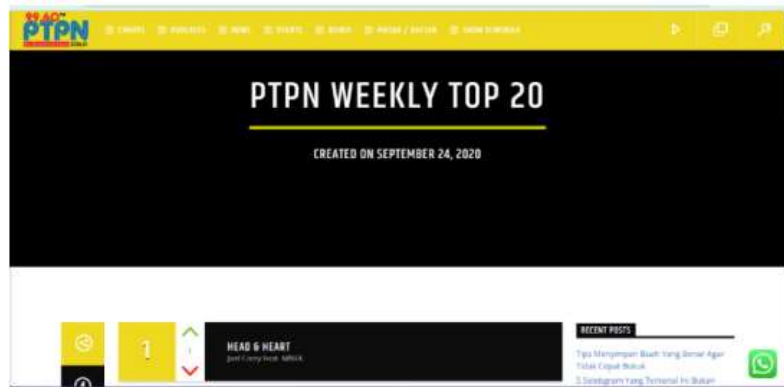


Figure 3. Chart Music

Source : ptpnradio.com, 2025

In addition to these three menus, PTPN Radio Solo also has a Podcast menu. On the podcast page, a podcast created by PTPN Radio Solo is displayed. However, on this page, only one podcast was uploaded on July 15, 2020. On the podcast page, it looks less updated and tends to only be displayed on on-air broadcasts related to podcast programs. The following can be seen in Figure 4, related to the podcast display on the PTPN Radio Solo website.

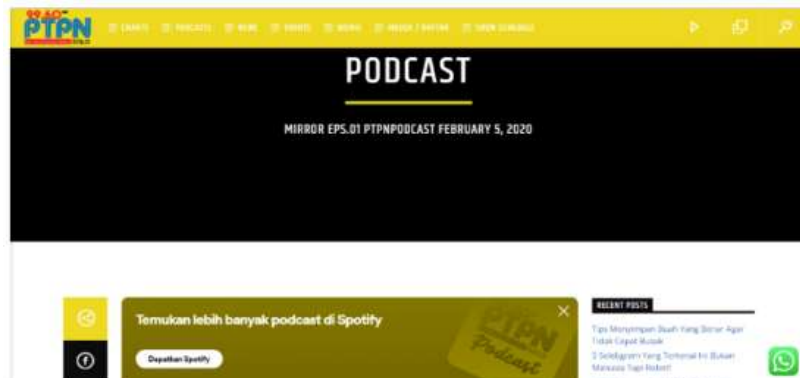


Figure 4. Podcast Menu

Source : ptpnradio.com, 2025

Apart from being a broadcasting media, the PTPN Radio Solo website also provides the latest information and advertising products and events from clients in collaboration with PTPN. This can be accessed by the audience on the news page. Figure 5 shows the news page display.



Figure 5. News Page

Source : ptpnradio.com, 2025

b. Noice App Streaming

In addition to using the website, PTPN Radio Solo implements media convergence by using one application to broadcast via Android or IOS. PTPN Radio Solo collaborates with the Noice application to broadcast on-air broadcast programs through its streaming. The Noice app is easy to use and can be downloaded for free on Android and iOS. In addition, Noice can also display the number of viewers who are listening to an ongoing on-air broadcast. Figure 6 shows the view of the PTPN Radio Solo Streaming and channel on the Noice application accessed using a tablet.

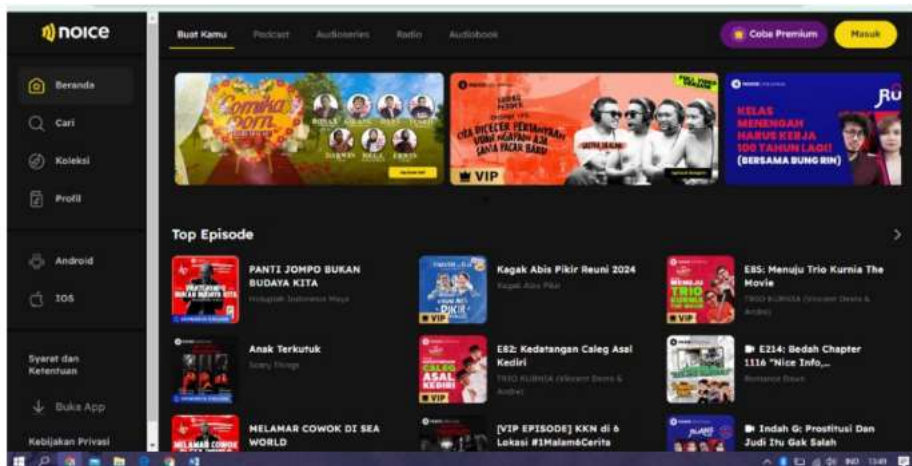


Figure 6. Display of Noice PTPN Radio Solo Application

Source : Chanel PTPN Radio Solo Noice, 2025

c. The Use of Social Media

PTPN Radio Solo utilizes social media such as Instagram (@ptpnradiosolo), Facebook (Ptpn Rasitania Full), and X (@ptpnradiosolo) to build relationships and interact with audiences widely and effectively. The platform allows PTPN Radio Solo to reach loyal audiences, attract new audiences, and promote programs, events, and services engagingly and interactively. In addition, PTPN Radio Solo also uses the Whatsapp application to interact with the audience. The Whatsapp application allows the audience to send message impressions and request songs to be played on the on-air broadcast.

Through social media, PTPN Radio Solo can share audio broadcast snippets, the latest news, and interesting information about the radio and music industry, as well as hold quizzes and contests to increase engagement with the audience. In addition, PTPN Radio Solo can use social media platforms to listen to input and suggestions from the audience, build an active online community, and strengthen PTPN Radio Solo's brand image as a dynamic, informative, and interactive radio. Figure 7 shows the use of social media by PTPN Radio Solo.

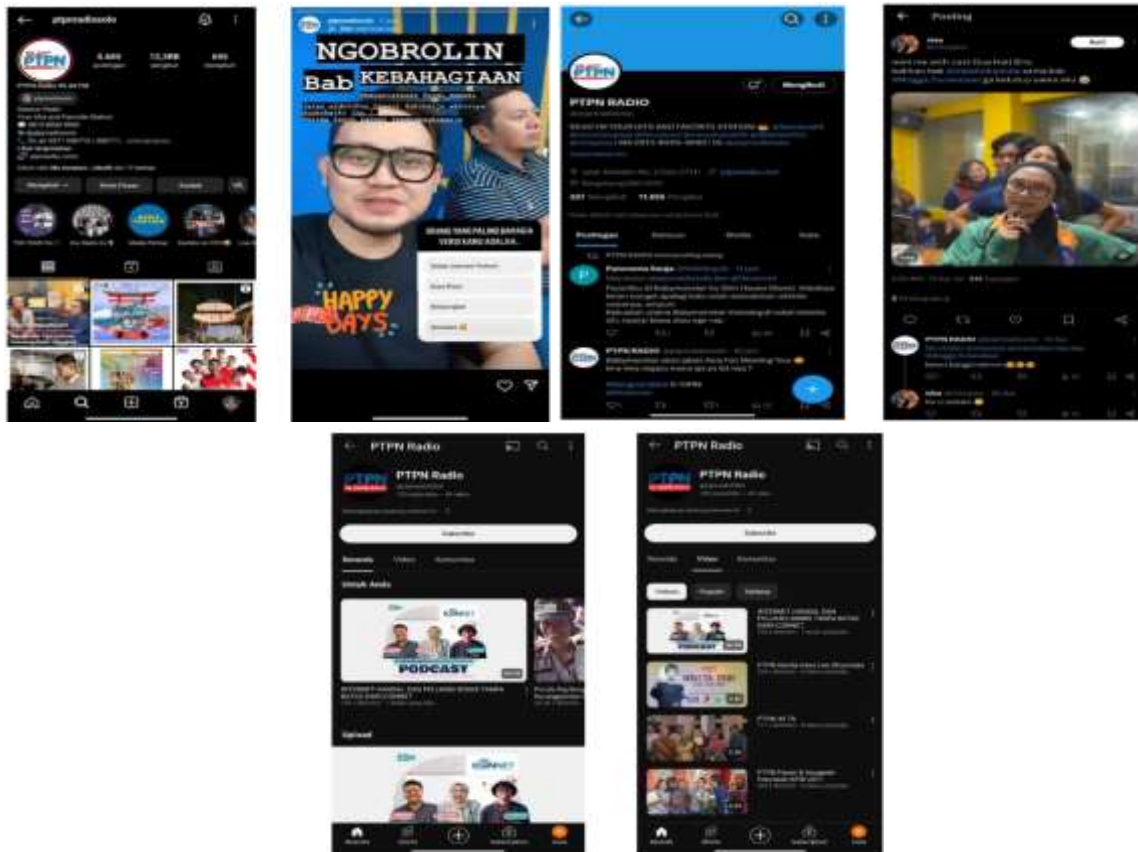


Figure 7. PTPN Radio Solo Social Media Display
Source : Social Media PTPN Radio Solo, 2025

d. Human Resource Development in Managing New Media

The management of new media platforms can effectively increase broadcast presence. Therefore, PTPN Radio Solo strongly emphasizes human resource development, especially in the announcer, web content, and multimedia divisions. This commitment is seen in the mandatory three-month training program given to new staff in the announcer, web content, and multimedia divisions. Training includes a variety of important skills and knowledge related to the broadcasting process and content creation on social media.

The training component that PTPN Radio Solo can carry out is vocal and broadcasting technique training for PTPN Radio Solo announcers. In addition, vocal techniques are also required, including clear and precise articulation and diction, effective use of intonation, intonation, and tempo, and practicing interview techniques and interaction with the audience. An announcer is also trained in making program scripts and improvising programs being run.

Meanwhile, the web and multimedia content division can be given content writing and production training. PTPN Radio Solo has one of the programs, namely news. News is on the PTPN Radio Solo website as a news and information page related to tourism in Solo, as well as unique tips about health and daily life. New staff in the web content division must undergo training related to article writing techniques, news, and search engine optimization (SEO). In

addition, content creators also receive training related to photo and video editing by the standards set by PTPN Radio Solo.

PTPN Radio Solo can also provide better training on using broadcast technology. Thus, the broadcast quality given to the audience can be more precise. Technology training can be in the form of using an audio mixer, adjusting the music volume, and using sound effects.

In general, after implementing media convergence, PTPN Radio Solo can increase its market. The number of clients interested in advertising on PTPN Radio Solo evidences this. PTPN Radio Solo also continues to increase its business scale by opening a radio café and holding concert events in Solo. PTPN Radio Solo also often conducts promotions to introduce various media convergence to the community around Solo through the Car Free Day program in Solo.

CONCLUSION

PTPN Radio Solo has successfully implemented broadcast digitalization using streaming websites and the Noice streaming application. But the technology not used in its maximal potencies. The media convergence need consistencies and quality so the purpose of its business can be reached. Media convergence has also penetrated social media, which is popular with young people. Through its website and social media, such as Instagram, X, Facebook, TikTok, and Youtube Channel, PTPN Radio Solo has managed to maintain its existence in the era of increasingly rapid digital technology development. At the newsroom convergence, PTPN Radio Solo has united the staff in managing its media. However, the social media used by PTPN Radio Solo has not been fully maximized and evenly distributed.

Meanwhile, at the convergence of newsgathering, it can be seen that PTPN Radio Solo staff multitask in their work. PTPN Radio Solo also facilitates training programs implemented for new staff. Although it is relatively successful in implementing business digitalization, PTPN Radio Solo needs to improve the quality of media convergence by bringing the Noice streaming website and application to life. PTPN Radio Solo also needs to collaborate with various clients so that the radio business continues to be in demand by the public.

BIBLIOGRAPHY

Ajayi, V. O. (2023). A Review on Primary Sources of Data and Secondary Sources of Data. *European Journal of Education and Pedagogy*, 2(3).

<https://doi.org/http://dx.doi.org/19810.21091/ejedu>

Alawa, L. (2023). The Imperatives of Media Convergence. *RESEARCH JOURNAL OF MASS COMMUNICATION AND INFORMATION TECHNOLOGY*, 9(1), 11–23.

<https://doi.org/10.56201/rjmcit.v9.no1.2023.pg11.23>

Alsaleh, A. (2024). The impact of technological advancement on culture and society. *Scientific Reports*, 14(1). <https://doi.org/10.1038/s41598-024-83995-z>

Asenahabi, B. M. (2019). Qualitative research, Mixed method research. *International Journal of Contemporary Applied Researches*, 6(5). www.ijcar.net

- Aspar, & Anshar, M. (24 C.E.). Transformasi Radio Digital: Tinjauan Teknologi, Konten dan Perilaku Khalayak. *Jurnal Mauizoh*, 9(2).
- Asy'ari, N. A. S. (2019, March 5). The Strategy of Radio Convergence For Facing New Media Era. *International Conference on Emerging Media and Social Science*.
<https://doi.org/10.4108/eai.7-12-2018.2281796>
- Brahmbhatt, A., & Shah, P. (2023). In The Era of Digitalization, Consumer Behaviour And Artificial Intelligence. *International Journal of Education, Modern Management, Applied Science & Social Science*, 5(02), 1–11.
- D.Lowry, L. (2015). Bridging the Business Data Divide: Insights into Primary and Secondary Data Use by Business Researchers. *IASSIST Quarterly*.
- F. Magnaye, R. C., & E. Tarusan, M. A. (2023). The Old and The New: Radio and Social Media Convergence. *International Journal of Communication and Media Science*, 10(2), 44–62.
<https://doi.org/10.14445/2349641x/ijcms-v10i2p105>
- Firdausi, I. A., Prayogi, I. A., & Pebriane, S. (2022). Implications of Media Convergence in The Existence of Mass Media in Banten. *Mediator: Jurnal Komunikasi*, 15(1), 118–128.
<https://doi.org/10.29313/mediator.v15i1.9964>
- Gd, S. (2023). Digital Media: Shaping Communication, Culture, and Society in the Digital Age. *Global Media Journal*, 21(64). <https://doi.org/10.36648/1550-7521.21.64.388>
- Herzhoff, J. (2009). THE ICT CONVERGENCE DISCOURSE IN THE INFORMATION SYSTEMS LITERATURE- A SECOND-ORDER OBSERVATION. *17th European Conference on Information Systems*.
- Hirschmeier, S., Tilly, R., & Beule, V. (2019). Digital Transformation of Radio Broadcasting: An Exploratory Analysis of Challenges and Solutions for New Digital Radio Services. *Proceedings of the 52nd Hawaii International Conference on System Sciences*.
<https://hdl.handle.net/10125/59939>
- Khan, A., & Din, H. (2022). CONVERGENCE IN MEDIA: UNDERSTANDING ITS CAUSE & EFFECT. *Journal of Education*, 1.
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital Transformation: An Overview of the Current State of the Art of Research. *SAGE Open*, 11(3).
<https://doi.org/10.1177/21582440211047576>
- Martins, F. S., Cunha, J. A. C. da, & Serra, F. A. R. (2018). Secondary Data in Research – Uses and Opportunities. *PODIUM Sport, Leisure and Tourism Review*, 7(3), I–IV.
<https://doi.org/10.5585/podium.v7i3.316>
- NCRM. (2020). *A practical guide to developing research objects when undertaking reproducible statistically orientated social science research during COVID-19*.
- Oranga, J., & Matere, A. (2023). Qualitative Research: Essence, Types and Advantages. *Open Access Library Journal*, 10(12), 1–9. <https://doi.org/10.4236/oalib.1111001>
- Priya, A. (2021). Case Study Methodology of Qualitative Research: Key Attributes and Navigating the Conundrums in Its Application. *Sociological Bulletin*, 70(1), 94–110.
<https://doi.org/10.1177/0038022920970318>

Rachmadiani, D. A. P., & Fanshoby, M. (2023). Storytelling Convergence pada Radio Shelter 95,3 FM di Era Digital. *Communication*, 14(2), 172–189.

Samarakoon, S. M. D. D., Johar, M. G. M., & Khatibi, A. (2023). The impact of digital transformation adoption towards broadcasting industry in Sri Lanka. *Journal of Print and Media Technology Research*, 12(2), 73–96. <https://doi.org/10.14622/JPMTR-2227>

Skare, M., & Riberio Soriano, D. (2021). How globalization is changing digital technology adoption: An international perspective. *Journal of Innovation and Knowledge*, 6(4), 222–233. <https://doi.org/10.1016/j.jik.2021.04.001>

Taherdoost, H. (2021). Data Collection Methods and Tools for Research; A Step-by-Step Guide to Choose Data Collection Technique for Academic and Business Research Projects. *International Journal of Academic Research in Management (IJARM)*, 10(1). <https://www.researchgate.net/publication/359596426>

Tomaszewski, L. E., Zarestky, J., & Gonzalez, E. (2020). Planning Qualitative Research: Design and Decision Making for New Researchers. *International Journal of Qualitative Methods*, 19. <https://doi.org/10.1177/1609406920967174>

Widyawati, R., Purwanto, M. I., & Dewi, R. A. (2019). PERANCANGAN MODEL BISNIS BERDASARKAN BUSINESS MODEL CANVAS PADA RADIO MQFM JOGJA. *Jurnal Pro Bisnis*, 12(2).