

Newspaper digital transformation in Medan: Analysis of SWOT and existence

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Abstract The era of digital technology demands adjustments for print mass media entrepreneurs to maintain the continuity of their production and marketing. On the other hand, many people still depend on their interest to continue reading the printed version of the newspaper, given the limitations of internet access and the affordability of using a smartphone. This study aims to determine the existence of newspapers or printed newspapers in the city of Medan and the factors that influence their development and implications for public literacy through printed newspapers. This research method uses qualitative research using a content analysis approach by observing the production figures of printed newspapers, the amount of advertising revenue, and critical analysis of literacy issues. The results showed that the daily printed newspapers in Medan, which amounted to 30 newspapers, were in critical condition and estimated to be closed in 2040. The advertising supply at the heart of newspapers declined drastically to the lowest level. The political economy theory of media put forward by Garnham clearly shows that the mass media, including the printed mass media of newspapers, is closely related to economic problems. This means that the mass media of letters will not be able to live without the support of economic power, and of course, it has implications for the level and quality of literacy of those who read through printed newspapers.

Keywords: newspaper transformation; digital technology era; literacy education.

INTRODUCTION

All human endeavours will be interconnected and ruled by digital media, according to the industrial era 4.0. Technological innovation and creativity are key to this period (Amanda, 2022; Veile et al., 2022; Zambrano et al., 2022). The term Industry 4.0 is no longer foreign to educated circles. The origin of this term arose as a result of the industrial revolution around the world as a fourth industrial revolution. It is said to be a revolution because the changes have a major effect on the world's ecosystems and way of life. Industrial revolution 4.0 is believed to have significantly improved the economy and quality of life (Fonna, 2019).

One of the biggest things in the Industrial Revolution 4.0, or what is often called IoT (Internet of Things), is the ability to facilitate

communication between machines, devices, and sensors to humans via the internet network. The development of smart grids has seen an increase in the usage of the Internet of Things, particularly in the upkeep of substations, which has had significant implications (Long, 2022; Cugno et al., 2022). The Internet and digitisation are fundamentally changing and disrupting the traditional operating model of newspaper companies (Karimi & Walter, 2015). As a small example, previously, in the era of the Industrial Revolution 3.0, we could only transfer money through ATMs or bank tellers. Now we can transfer money anywhere and anytime as long as we are connected to the internet. With the application in our gadget (gadget) and an internet connection, we can control our financial activities wherever and whenever (Fariz, 2022). Many people today feel trapped in the 4.0 era, the latest trend of automation and data exchange in the factory technology (Hidayat, 2019). It is said to be trapped because many humans are not ready. This era also continues to crush the lives of human beings who cannot escape the reality of their lives. Finally, many people are confused and confused about aligning themselves.

Era 4.0 includes cyber-physical systems, the internet for everything, cloud computing, and the cognitive computing (Hermann et al., 2016). Era 4.0 produces 'smart factories.' Within a modular structured smart factory, cyber-physical systems monitor physical processes, create virtual copies of the physical world, and make uncentralised decisions. Through the Internet for everything (IoT), cyber-physical systems simultaneously communicate and cooperate with each other and humans (Sukartono, 2018).

Through cloud computing, internal and cross-organisational services are provided and utilised by various parties in the value chain. The emergence of Era 4.0 comes from a project in the German government's advanced technology strategy that prioritises factory computerisation (Julfiati, 2019). The term 4.0 era was brought back at the 2011 Hannover Fair (Yusnaini & Slamet, 2019). In October 2012, the Working Group on Industry 4.0 presented recommendations for implementing Industry 4.0 to the German federal government. The Era 4.0 working group members are recognised as the founding fathers and pioneers of Industry 4.0 (Milhas, 2021).

In this 4.0 era, the world of newspapers is facing a very frightening challenge, marked by the bankruptcy of several major newspapers in America, such as The Boston Globe, Tribune Co, The Baltimore Sun, and the Chicago Tribune (Permana, 2017). The fate of the print media in Indonesia has also experienced the same thing, especially in Medan. It has experienced a very difficult situation. Even some newspapers have 'died' because they can no longer breathe normally. For example, the daily newspapers Seputar Indonesia (Sindo) Medan, Medan Bisnis, Global, Batak Pos, Bintang Sumatra, Harian Sumatra, Andalas, Harian Orbit. Meanwhile, the existing newspapers, such as Waspada, Analisis, Sinar Indonesia Baru, Medan Pos, General Pulpit, Sumut Pos and Tribun,

have also started to gasp. The main factor in the difficulty of the newspaper world in Medan City is living in the 4.0 era because of the emergence of mass media that uses digital systems, including the ability of digital technology that can be used to convey advertising messages for various products that have been the main source of income for the mass media.

Mass media can greatly strongly affect providing ideas or information to the public (Istiqomah, 2019). Digital transformation has become a central construct in the information systems (Lanamäki et al., 2020; Kraus et al., 2021). It is relevant for companies of all sizes and all sectors (Soluk & Kammerlander, 2021). Digital transformation is one of the main strategies to integrate digital technology into all areas of the business, which supports increased profits, productivity and agility of the company (Facchini et al., 2022). Digital technology is reconfiguring organisations and their environments. Activities are increasingly distributed across fields and coordinated by data, algorithms and machines (Alaimo, 2021).

Phillip Meyer (2009), an author of a book entitled "*The Vanishing Newspaper*," predicts that the last newspaper to be published will be in April 2040. This can be seen from the proliferation of news presented in digital form and a large number of enthusiasts. Will Phillip Meyer's prediction also give signs for the world of newspapers in Medan City? We can see how the collapse of newspaper companies in the United States (USA). The incident was not due to the poor quality of journalism but rather the decrease in buyers of printed edition newspapers, which resulted in reduced advertising revenue through print edition newspapers. Readers prefer to read newspapers in digital form through computers or gadgets because the news displayed tends to be newer (Elda, 2013). Newspapers lose their unique role in providing news and detailed information. Their advertisers leave them to online competitors, while newspapers have not been able to maintain their market share in the Internet environment (Sparks et al., 2016; Li, 2018). According to a Nielsen Media Research survey in nine cities in Indonesia (population of 43.87 million aged 10 years and over), in the third quarter of 2009, newspaper consumption reached its lowest point in the last five years (in early 2005, it reached 28 per cent, but continued to decline only 18 per cent in the third quarter of 2009). Magazine consumption also fell from 20 per cent to 11 per cent, and tabloids fell from 20 percent to 13 percent. This proves how difficult it is today for printed newspapers to develop. As many as 34 percent of newspaper readers are internet users and 41 percent of newspaper readers also access local news from the internet. Since 2006, the percentage of young internet users has continued to grow, from 12 percent to 20 per cent (aged 10-14 years) and from 24 per cent to 33 per cent (aged 15-19 years), while for those aged 20-29 years, it has decreased from 40 per cent to 30 per cent (Irso, 2020).

In the survey conducted by researchers directly on the campus of the State Islamic University of North Sumatra, especially among students of the Faculty of Social Sciences, Communication Studies Program, almost all students no longer recognise the names of newspapers published in Medan City. This means that they no longer read printed newspapers. The generation that grows up today is the generation that will replace humans aged 50 or 60 years for the next 20 years. This means that Phillip Meyer's statement will prove that in 2040 there will be no more printed newspapers because, in addition to having no more readers, print newspapers will no longer have an advertising supply. For the print media industry, newspaper sales are always related to advertising revenue which is its lifeblood. If these two things are disturbed, the press business in the printing company will also be shaken (Sholahuddin, 2013).

A study of the mass media as an industry can be done through the political economy of the media theory. The theory put forward by Garnham, media institutions must be assessed as part of the economic system, which is also closely related to the political system. The quality of knowledge about the society that the media produces for the public can be largely determined by the exchange rates of various contents under conditions that force the expansion of the message. It is also determined by the economic interests of the owners and policymakers (Arianto, 2011). Talks about the economic system will always be related to the issue of capital or the capital of the media owners.

This demonstrates how a reality created by the media is connected to the constructional concept that readers get news is subjective rather than objective. Media ownership will impact how reality is presented in the media (Nugraheni & Purnama, 2013; Krumsvik, 2015). Karl Marx stated that capitalism is an economic system that allows a few individuals to control the vital productive resources they use to achieve maximum profit. Regarding the relationship between capitalism and mass media, Stuart Hall said that mass media is the most important means of 20th-century capitalism to maintain ideological hegemony. The mass media also provides a framework for the development of mass culture through the efforts of the dominant group, which continuously strives to maintain, institutionalise, and preserve the power to undermine, weaken and eliminate the competing potential of the parties being controlled (Bungin, 2000).

One of the efforts made by the mass media to continue in power is the use of information technology. Through the mastery of IT, the mass media can perform efficiently, affecting the media's competitiveness in the context of media industry competition (Indrawan & Ilmar, 2020). Efficiency can be carried out in the production process and distribution of media content that can be carried out quickly, even to a leaner organisational structure.

The development of IT in the mass media industry has brought significant changes to the characteristics of the mass media. Even then,

the difference in these characteristics has become a determinant between the mass media that we have known so far (conventional mass media) with new media that have different characteristics due to the adoption of information technology (Machmud, 2011). The digital multiplatform strategy of effective integration of IT, commercial and editorial functions and willingness to experiment and innovate contributed to the success of traditional newspapers still surviving in the digital age (Doyle, 2013; van der Burg & Van den Bulck, 2017). This study also uses the Uses and Effects Theory, which Sven Windahl first conceived in 1979. The existence of this theory is a synthesis of the previous theory, namely the uses and gratifications theory and the traditional theory of effects. The concept of "use" is a very important or main part of this idea. Because knowledge about the use of media that causes it will provide avenues for understanding and predicting the outcome of a mass communication process. The use of mass media can have many meanings. This can mean exposure which simply refers to the act of perceiving.

In other contexts, this understanding can be a more complex process, where the content is related to certain expectations to be fulfilled. This theory focuses more on the second understanding (Bungin, 2006). In uses and gratifications, the use of media is determined by the basic needs of individuals, while in uses and effects, the need is only one of the factors that cause the use of media. Expectations and perceptions of the media, and the level of access to media, will lead individuals to make decisions to use or not to use mass media content (Sendjaja, 1999). The basic assumptions on the use of media to model uses and gratification are divided into three variables, namely: The amount of time, this dimension presents the amount of time used in using the media. Type of media content, this dimension presents the type of media content used. Relationship the dimension presents the relationship between individual media consumers and the media content consumed or the media as a whole.

In this study, the basic principle is that mass media users get an effect after using certain mass media. Thus one can expect or predict a close relationship between media messages and audience reactions. Based on this background, this research aims to determine the existence of newspapers or printed newspapers in the city of Medan and the factors that influence its development and implications for public literacy through printed newspapers.

METHODOLOGY

The methods used to obtain or collect data in this study include the method of observation. The word 'observation' comes from Latin, meaning to pay attention and follow, pay attention and follow in the sense of observing carefully and systematically the intended behavioural target. Observation is a process of seeing, observing, and recording behaviour systematically for a particular purpose (Herdiansyah, 2010).

In qualitative research, interviews are the main data collection method. According to Moleong (2017), an interview is a conversation with a specific purpose, and the conversation is carried out by two parties, namely the interviewer who asks questions and the interviewee who answers these questions.

The documentation method is a method of collecting qualitative data by viewing or analysing documents made by the subject himself or by another person by the subject. Documentation is one-way qualitative researchers can get a picture from the subject's point of view through a written medium and other documents written or made directly by the subject in question. With this method, researchers collect data from existing documents so that authors can obtain notes related to the research.

Of the dozens of printed newspapers in the city of Medan, two print newspapers need to be seriously observed regarding their existence in this 4.0 industrial era. The two newspapers are the *Harian Waspada* and *Harian Analisis*. At least these two newspapers occupy terraces above 10,000 and have many advertisements. These two newspapers can represent dozens of printed newspapers in Medan City. However, these two newspapers have experienced a drastic decline in advertising revenue and the number of news stories in the last three years, including dozens of other newspapers in Medan City.

This study is more oriented towards loading advertisements in two newspapers, *Waspada* and *Analisa*. This matter is quite significant for the existence of a printed newspaper because advertising is the heart of a newspaper. Without advertising, a newspaper will not be able to live normally. With advertisements, the media will get additional incomes, rather than just waiting for the results of newspaper sales. Both have an interdependent relationship. Advertising requires media for promotion. Meanwhile, media with persuasive abilities can attract readers' interest in the advertised product (Morisson, 2010).

Advertisements displayed by print media are presented in several categories. For example, advertisements for jobs, automotive, property, advertorial, condolence, financial statement, auction, product promotion, and many more. All of these advertisements are presented in different forms.

In the *Harian Waspada* in the last three years, the number of product advertisements installed is only half a page with a value of no more than IDR 2 million, with an advertising price of IDR 13,000/m/column. Likewise, the *Harian Analisis*, which previously reached 10 ad pages, has only three ad pages in the last three years with a value of around IDR 30 million, with a price of IDR 13,000/m/column.

Faced with this reality, however, a printed newspaper will not be able to live normally because the income from advertising does not provide income to cover daily needs, both production costs and salary costs for employees and journalists, as well as other costs related to

office needs (Nugraheni & Purnama, 2013). The factor causing the decrease in advertisers in printed newspaper media in the industrial era 4.0 due to economic shocks that made newspaper enthusiasts decrease as well as no less important is the growing development of online mass media and social media.

Online media is a new media (new media) that conveys information different from conventional media, namely print and electronic media. Online media requires computer-based devices and internet connections to find and receive information. The internet, with its unlimited character, makes internet users free to use media. The term 'online media' is often interpreted as a written news site or journalistic practice published via the internet. However, according to Ashadi Siregar, online media can be a general term for media based on telecommunications and multimedia (computers and the internet). There are news portals, websites (websites), online radio, online TV, online press, online mail and so on, with their characteristics according to the facilities that allow users or consumers to take advantage of them (Kurniawan, 2005).

Besides being channelled to online media, advertisements are also widely channelled to social media and other digital media. As a result, print newspapers do not have sufficient income to survive. Table 1 is a list of some printed newspapers still alive but in a state of illness.

Table 1. Printed Daily Newspapers in Medan City

No	Newspaper Name	Ad Presence/Day	
1	MIMBAR UMUM	12 Pages	¼ Page
2	WASPADA	16 Pages	0,5 Page
3	MEDAN POS	16 Pages	¼ Page
4	ANALISA	20 Pages	3 Pages
5	SINAR INDONESIA BARU	16 Pages	¼ Page
6	POS METRO MEDAN	12 Pages	¼ Page
7	BERITA SORE	12 Pages	Empty
8	REALITAS	12 Pages	Empty
9	HARIAN GLOBAL	12 Pages	Empty
10	PERJUANGAN	12 Pages	Empty
11	PERJUANGAN BARU	12 Pages	Empty
12	TRIBUN MEDAN	20 Pages	1,5 Page
13	METRO 24	12 Pages	¼ Page
14	SUMATERA	Closed	
15	SINDO MEDAN	Closed	
216	BATAK POS	Closed	
21	GAYA MEDAN	Closed	
22	SUARA RAKYAT MEDAN	Closed	
23	JURNAL MEDAN	Closed	
24	BERITA MEDAN	Closed	
25	SKALA INDONESIA	Closed	
26	POS KOTA SUMATERA	Closed	
27	HARIAN MANDIRI	Closed	
28	HARIAN BERSAMA	Closed	
29	MEDAN BISNIS	Closed	

Source: Data Processed by Author (2022)

RESULTS AND DISCUSSION

Economic importance in the newspaper industry

Before the world entered the digital era, many people chose newspapers as a medium of communication and information media because it has advantages. After all, in a news story, it has an in-depth explanation. Newspapers also have their characteristics compared to other media. Their characteristics are the spread of news as much as possible that the readers can accept, and the readers can enjoy the regularity of publishers daily. This content has a variety based on aspects of human life, information that has a basis on facts and relevant opinions, and information that can be viewed again without buying or re-accessing (Asmuruf, 2014).

Of course, the real concern is that newspapers have many functions and advantages as communication of information for the public. Newspapers are very important for consuming general knowledge and life sciences around them (Suharyanto, 2016). As a result, people who always want to read newspapers want to know about the development of the environment and society in which they live. It can be said that reading newspapers is not only to know the events but the developments that occur. By knowing developments, people not only get and know the situation, but humans also need to be able to adapt to the situation or even try to master and understand the situation for their benefit.

It can be said that the important role of newspapers as readers' information always prioritises information that is educational and relevant to its readers, where the news needs of each individual are different. This is where people should realise how important the role of newspapers is to get the developments of everyday life events in all areas. Public. Newspapers seeking quality and relevant information are not meant to communicate sincerely to the public. This is because newspapers have a goal so that people, in particular, can criticise developments in any aspect because newspapers provide a variety of news daily (Riadi, 2019). Thus, newspapers always carefully follow society's and its environment's developments. From the millions of events and problems, it is hoped that newspapers must still be able to be selective so that the needs of their readers for news are met.

This news need is understood by newspaper managers as a transition from the industrial era to the information age where readers always control and provide criticism in the development of press freedom that has been written to make the news relevant and in accordance with what is happening as if the sincerity of journalism is at stake for progress and quality newspapers (Romadhoni, 2018). As a result, the progress of newspapers can be said to be directly proportional to the progress of the community. This will be important if the progress of newspapers in the role of providing services to the community as a controller and education in conveying news, but the role of readers must also participate in controlling when freedom of the press deviates from

the vision of Pancasila and the role and function of the newspaper itself so that newspapers in Indonesia return to their pitch.

Newspaper print media will not be able to live a normal life without getting an adequate supply of advertising because advertising is a significant income to cover the cost of a newspaper company. In the last three years, the daily newspaper Waspada and Analisis has experienced a decline in advertising revenue. This can be seen in the publications every day on every available page. Garnham argues that media institutions should be valued as part of the economic system, closely related to the political system. The quality of knowledge about the society that the media produces for the public can be largely determined by the exchange rates of various contents under conditions that force the expansion of the message and is also determined by the economic interests of the owners and policymakers (McQuail, 1989).

Garnham stated that the mass media, including the printed mass media newspapers, are closely related to economic problems. This means that the mass media of letters will not be able to live without economic power's support. The only thing that can turn the print mass media on is its advertising revenue. If there are more advertisements, the welfare of employees and journalists will be more guaranteed. If welfare is not guaranteed, then the editorial management and the company cannot run well, so it is very influential in producing quality journalism. As a result, of course, it will also affect the purchasing power of readers towards the newspaper media.

Existence of Printed Newspapers in Medan

So it is only natural that many print mass media are closed because the mass media can no longer reap advertisements. Especially in the development of digital technology, advertisers have switched from print mass media to digital advertising. As a result, it harms the existence of print mass media such as newspapers. In Medan City, the two biggest newspapers have also experienced bad luck, namely Harian Waspada and Harian Analisis, because their advertising revenue has decreased considerably, even at the lowest advertising revenue level. This, of course, was initially due to the declining interest in reading in the print media of newspapers due to the emergence of online mass media. In the city of Medan, there are at least 40 online mass media that can be accessed every day by fans of the latest news.

In Era 4.0, the world of newspapers today, especially in the city of Medan, has experienced a very difficult situation. Some newspapers have 'passed away' because they can no longer 'breathe' normally. Therefore, it is possible that Phillip Meyer, an author of a book entitled "*The Vanishing Newspaper*" said, predicts that the last newspaper to be published will be in April 2040.

Opportunities and Threats

The Public Relations of Harian Waspada, Dr H Erwan Efendi, MA and the Head of the General Pulpit Company, Ngatirin, and an Analyst journalist, Suhayri, admit that advertising revenue in newspaper print media has recently experienced a significant decline. Likewise, the purchasing power of readers has decreased significantly compared to three years ago.

They both admit that the main reason for the declining interest of advertisers in newspaper print media is the influence of digital technology, which can be utilised for advertising and has faster access to its readers. It is not wrong what is said that the world today is rocked by the enormity of the development of communication and information technology (Muis, 2001).

Ngatirin admits that the high price of newsprint also significantly impacts the existence of newspapers. Because with the increase in the purchase price of newsprint, the newspaper company will automatically increase the selling price of the newspaper to the market. This affects readers' purchasing power, while newspaper companies cannot live solely on newspaper sales without any income from advertising.

As Wilson and Ogden say, the world of newspapers must take the steps that as a communication strategy, messages must be designed according to the wishes of the public so that they have appeal and invite public interest or interest to know the messages conveyed through the mass media. If the message is not in accordance with the public's wishes, then the message will be ignored by the public (Wilson & Ogden, 2008). Mass media also still depends on the people who use or control it (Effendy, 2002).

However, the main product of mass media is news. Readers consume this news. News is something new journalists choose to include in newspapers. An event is worth mentioning if it has news value. News value becomes a standard for journalists as a criterion in journalistic work practices to stimulate messages (Djurito, 2000).

According to Eriyanto (2007), the general news value that can attract readers is: a) Prominence, namely the greatness of the event and its importance. b) Human Interest, which contains more new elements, is sad and drains the audience's emotions. c) Conflict /controversy, i.e. events that contain conflict. d) Unusual that contains unusual events or events that rarely occur. e) *Proximity*, namely the proximity of events to media audiences.

Mass media companies should indeed consider the concept put forward by Eriyanto. However, the mass media of newspapers must also consider the speed with which the news reaches the readers so that they can compete with online media. Because online media has become the world of news as a global village, as stated by Marshall McLuhan.

Following the uses and effects theory, needs are only one factor that causes media use. Expectations and perceptions of the media, and the level of access to media, will lead individuals to make decisions to

use or not to use mass media content. The problem is that the need for newspaper print media for readers has decreased because they feel that without expensive capital, they have gotten news from online media through their Android access.

CONCLUSION

The Industrial Era 4.0 is a disgraceful era for the world of newspapers, including newspapers in the city of Medan. Because Era 4.0 makes the newspaper world lose its turnover from advertising revenue, the purchasing power of newspaper readers is decreasing because many readers have turned to online mass media, social media, and other digital media. Of course, there is no newspaper media in this world, including in Medan City, that can normally live without any income from advertising. The influence of advertising is quite decisive for the progress of a newspaper company. If they want to exist, newspapers must change the pattern or style of presentation with news that can have a strong influence and attraction for readers so that newspaper print media cannot compete with online mass media, which are quite busy nowadays with fast news presentations.

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