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The Business Model of the Mass Media Industry in the Era of Artificial Intelligence (AI) Development in Indonesia

Abstract

The digital transformation driven by advances in Artificial Intelligence (AI) technology has reshaped the media industry landscape in Indonesia. Although many media companies have adopted AI to enhance content efficiency and relevance, challenges in integrating this technology remain a significant issue. This research aims to explore the impact of AI implementation on the production, distribution, and consumption of media content in Indonesia, while also identifying the challenges and opportunities the industry faces. The methodology employed in this study is a case study approach, involving an analysis of several prominent media platforms in Indonesia, such as Kompas.com and Detik.com. Data were collected through interviews with industry practitioners and content analysis of published materials. The findings indicate that AI implementation has improved content personalization and operational efficiency but has also raised concerns about user privacy and the social implications of automation. The conclusions of this study underscore the importance of developing balanced strategies to harness AI's potential while addressing emerging ethical and social challenges. This research provides practical recommendations for stakeholders in the media industry to effectively and sustainably integrate AI into their operations.

Keywords: Artificial Intelligence, Media Business Models, Digital Transformation, AI in Mass Media, Content Personalization

I. INTRODUCTION

The development of digital technology, particularly Artificial Intelligence (AI), has had a significant impact on the global media industry, including in Indonesia. AI facilitates the automation of processes, faster data analysis, and the personalization of content tailored to audience preferences. In the Indonesian context, this shift is increasingly evident as more consumers turn to digital platforms, demanding more interactive and relevant content. Amid these changes, media companies face the challenge of adapting their business models to remain competitive and relevant in the digital era. While AI holds the potential to enhance operational efficiency for media companies, its adoption also presents ethical and operational challenges that require careful consideration. Indonesia, with its rapidly growing digital population, presents a market dynamic distinct from developed nations. Although AI has been widely implemented in the global media sector, its impact in Indonesia has yet to be thoroughly explored. While global media companies such as *The New York Times* and *BBC* have successfully integrated AI to enhance audience engagement, Indonesian media companies still face various challenges in implementing this technology, including limited infrastructure and a lack of understanding of AI itself (Ridwan et al., 2023; Soegiarto et al., 2024). This raises questions about how AI can be effectively applied in Indonesian media business models and how it might affect companies' interactions with their audiences and their monetization strategies.

Several studies have examined the adoption of AI in the media industry, focusing on various aspects of its implementation. For example, (Huang & Rust, 2021) found that AI improves the accuracy of consumer data analysis, allowing media companies to target audiences more precisely. However, there are concerns about the potential disruption of content quality produced by automated algorithms. (Moran & Shaikh, 2022) noted that AI can speed up the news production process, but the technology has not yet fully replaced human roles, especially in editorial processes that require deep understanding and critical judgment. In addition, (George & Youm, 2022) emphasized the importance of regulations in AI adoption in media to maintain the diversity of information and protect press freedom, a crucial aspect in countries with plural media ecosystems like Indonesia. Meanwhile, (Mohamed et al., 2024) highlighted the challenges AI faces in understanding local cultural contexts, a relevant issue in multicultural countries like Indonesia, where AI struggles to adapt to local nuances and linguistic variations. These studies provide an overview of AI's impact on the media sector; however, most focus on a global context and do not deeply explore how AI influences media business models in Indonesia. Further research is needed to understand how AI interacts with the local dynamics of the Indonesian media industry and to identify the challenges and opportunities arising from the adoption of this technology.

Existing studies largely focus on how AI affects operational efficiency and content quality in the global media industry, but there is a lack of in-depth research on how AI impacts media business models in Indonesia. (Mustopa et al., 2024) found that AI helps global media companies enhance user engagement through content personalization. However, in Indonesia, issues such as limited access to technology and infrastructure present barriers to optimal implementation. (Anshari et al., 2022) also expressed concerns that AI could threaten jobs in the journalism sector, but this context has not been thoroughly examined in Indonesia, where the journalism workforce still heavily relies on manual skills and traditional editorial processes. Furthermore, (Yusriadi et al., 2023) found that while AI can improve efficiency, many media organizations in developing countries, including Indonesia, face difficulties in building the necessary infrastructure to implement the technology on a large scale. (Laksono & Ismiatun, 2023) highlighted the importance of local adaptation in AI implementation, showing that the technology often fails to accommodate the unique linguistic and cultural nuances in countries like Indonesia, where a more personal and contextualized approach is needed. (Jeffri et al., 2023) also stressed that while AI offers many opportunities, ethical challenges related to data privacy and potential algorithmic bias pose significant obstacles, especially in regions with developing data protection regulations like Indonesia.

In light of this gap,² this research aims to provide a more comprehensive understanding of how AI affects media business models in Indonesia. The proposed research questions are: "How does AI implementation affect media business models in Indonesia?" and "What are the challenges and strategies that media companies can adopt to optimally leverage AI in enhancing their business sustainability?" Additionally, this study seeks to identify the internal and external factors influencing media companies' ability to adopt AI technology, such as infrastructure readiness, human resource competencies, and supportive regulations. By exploring these challenges, the study hopes to offer insights into how media companies can navigate the rapid technological changes in the digital era. The expectation from this research is to assist Indonesian media companies in formulating better strategies for integrating AI and maximizing its potential to support business sustainability in the digital era. Ultimately,⁸ the findings of this study are expected to provide practical recommendations that can be implemented by stakeholders in the media industry, both in terms of operational efficiency and long-term business strategy.

II. LITERATURE REVIEW

A. Business Models in Indonesia

According to (Åström et al., 2022), a business model³² serves as a framework that explains how a company creates, delivers, and captures value. Beyond merely describing the company's operations, the business model also acts as a bridge between strategic planning and implementation. (Farida & Setiawan, 2022) argues that in this context, innovation in business models is often a key factor that supports the achievement of competitive advantage. (Norris et al., 2021) add that the business model plays a crucial role⁵⁰ in outlining the company's relationships with stakeholders such as customers, partners, and suppliers. Furthermore, (Linde et al., 2023) elaborate that the model explains how revenue structures, cost management, and existing business processes enable organizations to more effectively capture market opportunities. Meanwhile, (Lanzolla & Markides, 2021) emphasize that a business model consists of a series of interconnected activities aimed at creating unique value in the market. They suggest that a deep understanding of the business model allows companies to be more flexible in responding to external environmental changes and technological developments.

In general, a business model⁶ serves as a guide detailing how a company creates, delivers, and captures value, whether economic, social, or otherwise. This model includes key elements such as cost structure, revenue streams, resources, core activities, and customer relationships. Technological advancements and global market dynamics have significantly altered the way business models are developed, particularly in the digital era. (Leppänen et al., 2023) state that many companies today no longer rely solely on traditional models but also leverage innovative

technologies to maintain relevance in increasingly competitive markets. In principle, a business model helps companies formulate strategies to generate revenue and profit. Important aspects of this model include identifying the value offered to customers, setting pricing strategies, and developing methods to attract and retain customers. In the digital age, many companies are adopting platform-based business models, enabling more efficient connections between sellers and buyers.

The business model of mass media in Indonesia has undergone significant changes with the advancement of digital technology, including the adoption of AI. Although AI implementation in the Indonesian media industry is still in its early stages, its potential is already becoming apparent. According to the Indonesian Cyber Media Association (AMSI), several major news portals such as *Kompas.com*, *Detik.com*, and *Liputan6.com* have begun exploring the use of AI for automating news production and personalizing content for audiences. With the application of this technology, media in Indonesia can present more relevant content, accelerate production processes, and increase user engagement. (Binlibdah, 2024) also notes that AI can be used to analyze big data, enabling faster identification of news trends, allowing media outlets to respond to audience interests more accurately. Moreover, (Javaid et al., 2022) highlight that AI has significant potential to improve operational efficiency in the media industry by reducing production costs and speeding up the delivery of information.

Additionally, subscription-based business models are increasingly gaining traction in Indonesia. Platforms such as *Berita Satu* and *The Jakarta Post* have introduced subscription services to provide access to premium content. The freemium model is also widely adopted, where users can access basic content for free, while additional features are offered at a cost. According to (Kübler et al., 2021), this model has proven effective in increasing user retention and creating a more stable revenue stream. (Indradie & Indriani, 2023) assert that subscription-based business models have positive prospects in Indonesia, particularly among users who value exclusive and trustworthy content. Research by (Rane et al., 2023) also found that content personalization based on user data significantly enhances audience engagement, which in turn positively impacts customer loyalty and advertising revenue.

B. Mass Media in Indonesia

Mass media can be defined as a communication medium that functions to rapidly disseminate information and reach a broad and diverse audience. According to (Rane et al., 2023), mass media encompasses various communication platforms, such as newspapers, television, radio, and the internet, which allow for the transmission of messages in multiple formats, including text, audio, visual, and multimedia. (Bachmann et al., 2022) add that mass media not only serves as a

communication tool but also as a social institution that connects information from sources to audiences. In this context, mass media plays a critical role in shaping public opinion, facilitating social discourse, and acting as a social watchdog by controlling the flow of disseminated information. Additionally, (Mapiye et al., 2021) highlight that the development of digital media, such as the internet and social media, has revolutionized the way information is disseminated globally, enabling large-scale communication within a very short time frame.

In the current digital era, the function of mass media as a communication medium remains crucial, despite significant transformations from traditional media to digital media. Traditional media such as newspapers, radio, and television have now evolved into digital platforms such as online news sites, social media, and podcasts. According to (Skana & Gjerazi, 2024), the role of mass media is vital in shaping public opinion, influencing policy decision-making, and acting as a social watchdog, ensuring that society continues to receive accurate and high-quality information. The shift from traditional to digital media has also brought significant changes in how society consumes information. One of the key differences is the speed of information delivery. In the past, the dissemination of news through print and broadcast media required time for editorial processes, whereas today, news can be published within seconds on digital platforms. This transformation, while increasing efficiency, also poses new challenges for journalists, particularly in maintaining accuracy and credibility amidst the pressure to deliver news as quickly as possible. The public also faces challenges in critically filtering information to avoid falling into the trap of hoaxes or inaccurate news.

Mass media in Indonesia has undergone significant development, from the era of print media, radio, and television to the digital era marked by the emergence of online news platforms and social media. Research by (Rakhmani & Saraswati, 2021) reveals that media in Indonesia plays an essential role in social and political transformation, especially after the end of the authoritarian regime in the late 1990s. Since then, the media industry has rapidly expanded and become one of the main pillars supporting the democratization process and press freedom. This development has also opened up greater opportunities for independent journalism and increased public access to information. Advances in digital technology have brought significant changes to the media landscape in Indonesia. (Rao et al., 2022) note that the internet and social media have transformed how people consume information. Many now rely more on digital platforms such as *Detik.com*, *Kompas.com*, and *Liputan6.com* for news rather than traditional media like newspapers or television. High internet penetration has also enabled the rise of more inclusive and interactive alternative media, providing audiences with the opportunity to engage directly in public discourse.

As consumer behavior in accessing media shifts, many media companies in Indonesia are beginning to adopt more flexible, customer-oriented digital business models. (Lähteenmäki, 2021) Additionally, social media has now become a significant source of revenue through digital advertising, which can be more specifically targeted based on user behavior data. This strategy allows media companies to optimize revenue while maintaining the relevance of content in the eyes of the audience. These innovations are crucial to ensuring the financial sustainability of media companies, particularly amid increasingly fierce competition in the digital era, where access to information is becoming easier and faster.

C. Artificial Intelligence (AI) in Mass Media

AI can be defined as a branch of science focused on developing systems capable of performing tasks that typically require human intelligence. According to (Markauskaite et al., 2022), AI encompasses abilities such as language comprehension, learning from experience, and problem-solving, to imitate human thought processes to enhance the efficiency of task execution. (Xu et al., 2021) further explain that AI is a blend of science and engineering aimed at creating machines that can perform functions such as voice recognition and natural language processing, by programming computers to replicate human behavior. (Sarker, 2022) expands this concept, describing AI as a computer system's ability to exhibit behavior deemed intelligent through techniques like machine learning and neural networks, where systems learn from data and gradually improve their performance. (Iyer, 2021) also emphasizes the significant role AI plays in various sectors, including healthcare and transportation.

The use of AI in Indonesia's mass media has seen significant growth in recent years. (Lim & Zhang, 2022) note that AI now supports automated news writing, content personalization, and audience behavior analysis. The presence of AI in news content production has brought positive impacts, particularly in terms of time and human resource efficiency. This technology enables the large-scale production of content in a short time and facilitates more targeted content distribution. By analyzing demographic data and audience preferences, content can be tailored more precisely to the needs of each individual. (Amran et al., 2023) discuss how AI influences journalistic practices in Indonesia. Technologies such as Natural Language Processing (NLP) are beginning to be utilized to automatically generate news based on available data. Although AI can speed up the news production process, concerns arise regarding the quality and accuracy of content produced automatically. Several news platforms in Indonesia have started adopting this technology, though its implementation is still in its early stages. The main challenge in using AI in journalism is ensuring that the algorithms used remain neutral and do not introduce bias in news presentation.

Research by (Priadi & Thariq, 2023) highlights the crucial role of AI in personalizing mass media content in Indonesia. By leveraging big data analysis, AI enables media to more accurately identify audience preferences. AI algorithms can adjust the types of news and information presented to each individual based on search history, demographics, and user preferences. However, AI-based content personalization also presents new challenges, particularly concerning user data privacy and the potential for bias in presenting information focused on specific groups. Ethical aspects of AI implementation in Indonesia's mass media are also a critical concern, as outlined by (Cheng et al., 2021). One of the main issues raised is the lack of transparency in algorithm usage and the potential for misuse of user data. While AI offers efficiency in information dissemination, it also carries the risk of spreading inaccurate or biased information. The use of AI to filter fake news (hoaxes) is still under development, necessitating more accurate and reliable algorithms to address this challenge.

Looking ahead, (Yusriadi et al., 2023) project that AI implementation in Indonesia's mass media will continue to expand as digital infrastructure advances. AI will not only be used to produce and distribute content but also to manage media businesses as a whole. AI technology has the potential to help media companies design more effective marketing strategies, optimize content distribution, and enhance audience engagement. However, to maximize the benefits of AI, clear regulations and collaboration between the public and private sectors are needed to ensure the responsible use of this technology. Based on the reviewed literature, it is evident that AI has a significant impact on Indonesia's mass media industry, particularly in terms of content production, distribution, and personalization. Nonetheless, ethical issues, data privacy, and potential biases remain challenges that need to be addressed. With proper regulation and support for technological innovation, AI is expected to continue playing a pivotal role in transforming Indonesia's mass media industry, creating a more efficient and responsive future for audience needs.

43 III. RESEARCH METHOD

A. Research Design

This study adopts a qualitative approach to explore the impact of AI on the mass media industry in Indonesia. The approach aims to uncover deep insights and understanding of the phenomenon under investigation, focusing on the subjective interpretations of participants involved in the media industry. A case study design was employed to analyze several media companies, such as *Kompas.com*, *Detik.com*, and *Liputan6.com*, which have integrated AI into their operations, particularly in content automation and user experience personalization.

B. Data Collection

Primary data collection was conducted through in-depth interviews with key informants selected purposively, involving practitioners from various positions within the media industry. These interviews were designed not only to obtain basic information but also to allow participants to share their in-depth experiences regarding the application of AI in media. The use of semi-structured interviews enabled the researcher to obtain richer data by allowing flexibility in probing for information according to the interview dynamics. Informants were expected to provide comprehensive insights into the impact of AI on content production, distribution, and operational efficiency. The data collected from the interviews were then carefully recorded and transcribed to ensure accuracy before further analysis. This process was designed to maintain the quality and validity of the data obtained from the interviews.

Interview

Data were collected through in-depth interviews with 15 media practitioners, including journalists, content managers, and information technology experts. The interviews were semi-structured, allowing for flexibility in probing for information while maintaining focus on key topics. Example questions included: "How has AI technology influenced your company's content production and distribution processes?" and "What challenges do you face in integrating AI into your media operations?"

In addition to interviews, secondary data were also collected through the analysis of various documents, such as industry reports, media companies' annual reports, and internal policies related to AI use. The researcher also reviewed data from case studies of companies that have adopted AI extensively, focusing on content automation and user personalization. This secondary data was used to enrich the findings from the interviews, allowing the researcher to obtain a broader perspective on AI implementation in Indonesia's media industry. These documents also provided important context, enabling the researcher to understand the integration of AI within the organizational structure and operations of media companies. Overall, the combination of primary and secondary data provided deeper insights and supported a comprehensive analysis of the impact of AI on the mass media industry.

Case Study

Additionally, case studies were conducted on several prominent media companies to provide an in-depth view of AI integration, focusing on operational aspects like content automation and audience personalization.

Document Analysis

Secondary data were collected through the analysis of various documents, such as industry reports, media companies' annual reports, and internal policies related to AI use. This data helped enrich the findings from the interviews and provided additional context on the operational and strategic implementation of AI.

Observations

Direct observations were also conducted in several media companies to understand how AI is applied in daily operations, including content production and distribution. These observations helped in identifying both technical and organizational challenges, such as internal resistance to technological change and a lack of understanding of AI's potential. Direct observations were also conducted in several media companies to gain a deeper understanding of how AI is applied in daily operations, including in content production and distribution processes. Through these observations, the researcher could witness firsthand how AI technology is utilized in workflows and decision-making processes within the companies. This approach also enabled the researcher to observe how audiences interact with AI-personalized content and how the technology influences user experience. Furthermore, the researcher identified both technical and organizational challenges faced by companies in implementing AI, such as internal resistance to technological change and a lack of understanding of AI's potential. The results of these observations provided valuable additional insights to complement the findings from interviews and document analysis, offering a more holistic perspective on AI implementation in the media industry.

C. Data Analysis

Once the data from interviews, documents, and observations were collected, thematic analysis was employed to identify patterns, themes, and key categories. The analysis focused on how themes such as business automation, content personalization, ethical challenges, and the social impact of AI related to the media industry. Each theme was analyzed to assess its implications for the research objectives, ultimately supporting the conclusions regarding AI's impact on the Indonesian mass media industry.

D. Trustworthiness

To ensure the validity and reliability of the data collected, the researcher applied triangulation. This was performed by comparing findings from various sources—interviews, observations, and document analysis—to ensure consistency in the results. When discrepancies were found, further analysis was conducted to ensure data accuracy. Additionally, member checking was carried out,

involving participants in verifying the interpretation of the data to minimize bias or error in the analysis.

Once the data from various sources, including interviews, documents, and observations, were collected, the next step was to systematically analyze the data. Each interview transcript was thoroughly reviewed to ensure the accuracy and completeness of the data obtained. Relevant documents were selectively chosen, focusing only on data directly related to the research objectives to ensure the findings were precise and useful. Thematic analysis was then employed to identify patterns, themes, and key categories emerging from the collected data. This process allowed the researcher to understand how various themes, such as business automation, content personalization, ethical challenges, and the social impact of AI, relate to the media industry. Each theme was further analyzed to assess its implications for the research objectives, ultimately supporting the conclusions regarding the impact of AI on the mass media industry in Indonesia.

To ensure the validity and reliability of the data collected, the researcher applied triangulation, a standard approach in qualitative research (Kaman et al., 2016). Triangulation was performed by comparing findings from various data sources, such as interviews, observations, and document analysis, to ensure consistency in the results. When discrepancies between sources were found, the researcher conducted further analysis to investigate the causes of these differences and to ensure the data were accurate and representative of the real-world conditions. Additionally, member checking was carried out by involving participants in verifying the interpretation of the data. This step aimed to minimize the potential for bias or error in the analysis and to ensure that the research findings genuinely reflected the experiences and perspectives of the informants. By employing triangulation and member checking, the researcher ensured that the study's findings were valid and reliable, providing comprehensive answers to the research questions.

IV. FINDINGS AND DISCUSSION

A. *The Concept of the Mass Media Industry in Indonesia in the Context of Artificial Intelligence (AI) Advancements*

The development of AI has significantly transformed the mass media industry in Indonesia, affecting content production, distribution, and consumption comprehensively. AI enables media organizations to tailor content to audience preferences, making the information more relevant and enhancing user engagement in an increasingly competitive landscape. As one interviewee, a content manager from Kompas.com, noted: "AI has allowed us to analyze reader preferences more effectively, helping us deliver more personalized content that aligns with their interests."

In addition to operational efficiency, from data collection and analysis to automated news writing, AI accelerates the publication process, ensuring that information reaches audiences more quickly. However, AI presents challenges related to ethics and public trust, as highlighted by a journalist from Detik.com: "The challenge with AI-generated news is maintaining accuracy and credibility. We need to make sure the algorithms don't introduce bias or misinformation."

To address these issues, media outlets must uphold journalistic integrity and use AI with transparency and responsibility to ensure that the information conveyed remains accurate. On the other hand, AI opens opportunities for media organizations to gain deeper insights into audience behavior through big data analysis, enabling more effective content and marketing strategies. As stated by an information technology expert from Liputan6.com: "AI has given us a clearer picture of what our audience wants, allowing us to refine our marketing strategies and improve user engagement." The collaboration between technology and journalism becomes critical, with the need for journalist training in AI usage to foster content innovation, expand audience reach, and increase competitiveness in the digital era.

1. News Portals

News portals typically employ the inverted pyramid structure in their reporting, a method commonly used in journalism. This approach presents the most important and relevant information upfront, followed by supporting details, and concludes with additional information. As a result, readers can immediately access the core of the news without needing to read the entire text. At the outset, an engaging and informative headline serves as the primary hook. The headline not only grabs the reader's attention but also provides a brief preview of the news content. Following this, the main information, including the 5W1H elements (who, what, when, where, why, how), is presented directly. Clear and concise communication at this initial stage is essential for readers to quickly grasp the main points of the news.

Once the core information is delivered, more detailed explanations are provided to enhance understanding. In this section, journalists may elaborate on the context, background, or other aspects that add depth to the narrative. This explanation allows readers to gain broader insights into the issue being discussed and understand how the information relates to larger events. The final section of the news contains additional information, such as quotes, statistical data, or other relevant references. Although not essential for understanding the main point, these elements add value and context. For example, quotes from sources or experts may provide additional perspectives, while statistical data can reinforce previously presented facts. The inverted pyramid structure ensures that the news is effectively communicated and easy to understand for readers. This method allows readers to quickly locate the core information, enabling them to decide

whether to continue reading. The structure is well-suited to the needs of modern digital readers, who often have limited time and prefer quick, direct information. Figure 1 illustrates the concept of the mass media business industry, supporting this explanation.

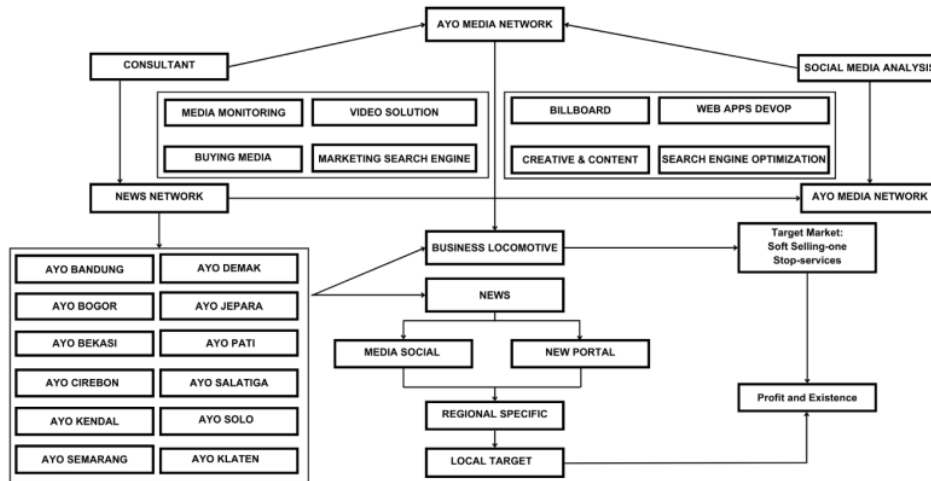


Figure 1. Concept of the Mass Media Business Industry

The mass media business industry encompasses the systems and structures that govern the production, distribution, and consumption of information through various platforms, including television, radio, newspapers, and digital media. Major transformations in this industry have occurred due to technological advancements and changes in consumer behavior, pushing media to reach broader audiences through online platforms. Mass media not only disseminates information but also bridges social, political, and cultural issues, despite facing challenges such as competition and operational decline. Media companies must quickly adapt to technological developments and audience preferences, including adopting new business models such as digital advertising and subscriptions. Technological advancements, such as AI and big data, assist media organizations in personalizing content and improving operational efficiency, while AI facilitates the automation of content production. Although disinformation and competition with digital platforms pose challenges, technological innovation offers opportunities for the media industry to remain relevant.

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B. Construction of the Mass Media Business Model in the Era of Artificial Intelligence Development in Indonesia

The utilization of AI in Indonesia's mass media industry has significantly reshaped business models by automating content production and enhancing operational efficiency. AI enables

automated processes for writing, editing, and gathering information, allowing journalists to focus more on in-depth research and analysis, which in turn contributes to improved news quality. On the distribution side, AI plays a crucial role in personalizing content through user behavior analysis. This technology allows for the presentation of more relevant information to audiences, creating a more interactive and engaging experience. The reach of content, especially on digital platforms such as social media, becomes more effective with AI. However, the use of AI also poses ethical challenges, particularly concerning the accuracy of information and potential biases in the algorithms used. To maintain public trust, media organizations must adhere to journalistic integrity and transparency in the implementation of this technology. By prioritizing ethics and responsibility, AI can be wisely utilized to improve the efficiency and relevance of content. Thus, the media is expected to continue functioning as a credible and trustworthy source of information.

1. Customer Segment

In the business model of the mass media industry in Indonesia, the development of AI allows companies to serve diverse customer segments more effectively. First, the individual segment, comprising users from various age groups, utilizes digital platforms to seek interactive and personalized information. AI technology helps media organizations analyze user behavior, enabling relevant content recommendations, thereby optimizing the user experience. Additionally, there is the organizational segment, which includes companies and institutions that use mass media for marketing and communication purposes. AI supports in-depth data analysis to enhance the effectiveness of their content and advertising strategies. The community segment also benefits from AI, as this technology can understand the dynamics of groups with shared interests or objectives, creating relevant content and fostering interaction. With AI, media organizations can quickly gather and analyze data, improving customer satisfaction and strengthening audience loyalty. Therefore, adapting to AI and understanding consumer behavior is essential for the mass media industry to continue meeting the dynamic market needs in Indonesia.

2. Value Proposition

The advancement of AI has brought significant changes to the value proposition of the mass media business model in Indonesia. First, AI enables large-scale data analysis, helping media organizations better understand audience preferences and behavior. With this information, media can deliver more relevant and personalized content, ultimately increasing reader engagement and loyalty. Additionally, the application of AI in automating content production processes such as automated news creation and video editing contributes to reduced operational time and costs. This technology allows mass media to provide news more quickly and efficiently, ensuring up-to-date

information for audiences and maintaining competitiveness in a dynamic market. AI also enhances the user experience through intelligent recommendation systems. By analyzing previous user interactions, the system can suggest relevant articles, videos, or programs, creating a more interactive and satisfying experience for audiences. From a monetization perspective, AI opens new opportunities for mass media through more targeted advertising. With a deeper understanding of audience demographics and interests, media organizations can offer more effective and efficient advertising spaces, attracting advertisers who wish to reach specific audience segments more accurately. Finally, in the face of disinformation challenges, AI plays a crucial role in fact-checking and filtering inaccurate content, contributing to increased public trust in media. By leveraging AI to maintain information quality, mass media can strengthen its reputation as a reliable and trustworthy news source.

3. Channels

The progress of AI has significantly transformed the media sector in Indonesia, changing how information is coordinated and how interactions with audiences occur. While television and radio remain important, especially in areas with limited digital access, mass media is increasingly shifting to digital platforms such as social media, news apps, and websites. AI integration allows traditional media to use viewership data analysis to tailor programs to audience preferences, while digital media accelerates information distribution and enables faster interaction through platforms like *Instagram* and *Twitter*. AI also plays a key role in personalizing content, analyzing user behavior, and optimizing algorithms to increase audience engagement. Moreover, this technology opens new opportunities through AI-based news apps and chatbots, enabling more responsive customer service and providing relevant news summaries tailored to user interests. Supported by AI, media organizations can conduct more in-depth data analysis to understand audience trends, improve content relevance, and strengthen operational efficiency. This transformation creates a dynamic and responsive information ecosystem, shaping new ways of communicating and interacting with audiences in Indonesia. Figure 2 illustrates the "10 Keys Model of the Mass Media Business Industry," supporting this explanation.

Key Partnership	Key Active	Value Proposition	Customer Relation	Customer Segmentation
	Key Resource		Channels	
Cost Structure			Revenue Stream	
Technology Applied				

Figure 2. 10 Keys Model of the Mass Media Business Industry

C. Transformation of Indonesia's Mass Media Through AI Technology: Case Studies and Examples

The transformation of mass media in Indonesia, driven by AI technology, has reshaped the way information is produced, disseminated, and consumed. Several media outlets, such as *Kompas.com*, utilize AI to analyze reader preferences and deliver personalized content, enhancing user engagement by providing articles aligned with their interests. *Detik.com* leverages AI to accelerate news curation and distribution, enabling the presentation of real-time, up-to-the-minute information in mere seconds. Additionally, *CNN Indonesia* has adopted chatbot technology and virtual assistants to enhance direct user interaction, while *Tirto.id* uses AI to detect disinformation, ensuring news accuracy. *IDN Times*, which targets the millennial generation, relies on AI to analyze trends and reader preferences, thereby creating more targeted content. This transformation not only improves efficiency but also brings mass media closer to its audience by delivering more relevant and dynamic content.

While AI offers numerous benefits, there are social and economic challenges that must be addressed. The transformation of job roles due to AI implementation may reduce the need for traditional positions such as journalists and editors, potentially impacting employment opportunities in the sector. Additionally, the digital divide between urban and rural areas is a concern, as not everyone has equal access to this technology, potentially creating disparities in accessing information. Privacy issues also arise from the use of AI in collecting user data, necessitating transparent policies to protect personal information. Other challenges include the high costs of implementing AI, which can burden smaller media outlets, and the potential decline in the quality of journalism, with a shift toward popular content rather than in-depth reporting. Public acceptance of AI also requires further education to help society understand and embrace this technology. Overall, while AI presents significant advantages for mass media in Indonesia, these challenges must be addressed to ensure that its application is inclusive and sustainable.

V. DISCUSSION

The findings of this study reveal that the application of AI in Indonesia's mass media industry has brought significant changes to the production, distribution, and consumption of content. These results align with previous research conducted by (Åström et al., 2022), which emphasized the importance of innovation in business models to achieve competitive advantage. However, this study also found that despite the widespread adoption of AI technology by many media companies, there remain challenges in achieving effective integration, particularly concerning ethics and the resulting social impact. A key aspect highlighted in this research is how AI can

enhance content personalization, a finding consistent with (Farida & Setiawan, 2022), who showed that personalization can increase user engagement. Nonetheless, this study underscores that excessive personalization may lead to privacy and trust issues among consumers an area that has been underexplored in previous literature. Therefore, there exists a knowledge gap that needs to be addressed regarding how media companies can balance personalization with user privacy protection.

Additionally, the results of this study demonstrate that content automation through AI can improve operational efficiency, but it also raises concerns about job reductions in the media sector. The research by (Lim & Zhang, 2022) has addressed the impact of automation on employment, but not specifically in the context of Indonesia's media industry. Therefore, this study makes a valuable contribution by highlighting the need to develop strategies that can mitigate the negative effects of automation, while still leveraging AI's potential to enhance productivity. Overall, this research strengthens the argument that while AI offers numerous opportunities for innovation in the media industry, the challenges associated with its implementation require greater attention. Further research is needed to explore practical solutions that media companies can adopt to address the ethical and social issues arising from AI use, as well as to understand the long-term impact of automation on the workforce in this sector.

VI. CONCLUSION AND RECOMMENDATION

¹⁴ This study concludes that the implementation of AI has had a significant impact on the operational and strategic aspects of the mass media industry in Indonesia. Automation through AI accelerates content production, editing, and distribution, enhancing operational efficiency and reducing costs by replacing manual labor. AI has become a key element in media business strategies, helping companies remain competitive in the dynamic digital era. In addition to streamlining workflows, AI enables more optimal resource allocation, allowing media companies to adapt quickly to changes. The use of AI has also ¹⁰ led to the emergence of new business models focused on data monetization, creating new opportunities in the industry. AI integration allows media companies to collect and analyze user behavior data more accurately, enabling them to tailor content to audience preferences. This data can also be sold to third parties, generating additional revenue streams. AI's ability to personalize content enhances audience loyalty and strengthens user engagement with media platforms. This AI-driven personalization makes media platforms more relevant and competitive. Further research is recommended ²⁴ to explore the long-term effects of AI on media business models, as well as ethical issues such as data privacy and information accuracy. It is hoped that such research will provide strategic recommendations for adapting media businesses in the digital era.

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