

UTILIZATION OF ILLUSTRATED BOOKLET EDUCATIONAL METHODS FOR EARLY DETECTION OF RISK FACTORS IN PREGNANCY

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ABSTRACT

Research that uses a case study qualitative method and the chosen research subject is the government can provide a deeper understanding of the importance of communication development through information and communication technology in the era of globalization, navigation and decentralization. Some of the findings resulting from this research are as follows: The Importance of Development Communication through ICT: Research shows that effective development communication by utilizing ICT media, especially through e-Government has a positive impact on improving good, fast and responsive public services. The use of this technology allows local governments to interact directly with the community, convey information about development programs, and facilitate active community participation in the development process. In addition, budget transparency and development programs are also important factors in building public trust in the government.

Keywords: Impact, Infrastructure Development, Digital Era

INTRODUCTION

The digital age brings many opportunities and benefits in nation-building, but it also poses a number of challenges that need to be overcome (Shairgojri, 2022). Some problems related to nation building in the digital era are digital infrastructure, lack of adequate digital infrastructure, such as equitable internet access, reliable telecommunications infrastructure, and human resources skilled in technology, are obstacles in utilizing the potential of technology optimally (Clark et al., 2022). Equitable distribution of internet access and improving the quality of digital infrastructure are priorities to ensure that all levels of society can feel the benefits (Faturoti, 2022). The digital age brings an explosion of information, but it also raises the problem of unchecked information disclosure (Gasparyan et al., 2015). The existence of false information, hoaxes, and negative content that is easily spread through social media requires public awareness to become critical and wise consumers of information (Gasparyan et al., 2015). Increasing digital and media literacy is important in facing this challenge (Smith & Magnani, 2019). The threat of cyberattacks, theft of personal data, and online fraud is a serious problem in the digital age (Perwej et al., 2021). The protection of privacy and data security is very important, both at the individual and institutional levels (Hess et al., 2015). Increasing awareness and skills in cybersecurity, as well as

strengthening appropriate policy and regulatory frameworks, are needed to protect communities and institutions from these threats (Saeed et al., 2023). Lack of digital understanding and skills is an obstacle in harnessing the potential of technology (Raj et al., 2020). It is important for education and training to focus on developing digital skills, both for the general public and the workforce, so that they can adapt to technological changes and make effective use of them (Van Laar et al., 2017). Unequal access to technology and information can widen economic disparities (Bor et al., 2017). For those with limited access or understanding of technology, opportunities to harness the potential of the digital economy are limited (Lutz, 2019). Efforts are needed to address this inequality by ensuring equitable access and providing the training needed to strengthen digital inclusivity (Kaliisa & Michelle, 2019). Building a nation in the digital age requires commitment and collaborative efforts from the government, private sector, educational institutions, and society at large. By addressing these challenges, Indonesia can harness the full potential of technology to achieve sustainable social, economic, and prosperous progress.

Based on the background previously explained, here are some formulations of problems that will be discussed, namely: What are the positive and negative impacts of national infrastructure development in the digital era?

Impact

The main categories, namely positive impact and negative impact:

Positive impact refers to an influence or effect that is beneficial or provides benefits. Positive impacts can include increased efficiency, increased productivity, increased profits, increased customer satisfaction, improved product or service quality, improved company reputation, and so on. Positive impacts are usually expected and desired in decision making (O'Shea et al., 2019).

Meanwhile, negative impact refers to adverse influences or effects or provide adverse consequences (Liu et al., 2023). Negative impacts can include decreased performance, decreased profits, decreased customer satisfaction, financial losses, reputational losses, internal conflicts, adverse environmental impacts, and so on. Negative impacts are usually avoided and strive to be minimized in decision making (Lerner et al., 2015). It is important for a leader or superior to consider both types of impact when making decisions (Nawaz & Khan, 2016). They need to understand the consequences of the decisions taken and conduct risk analysis and evaluation of potential impacts both positively and negatively. It helps in optimizing results and achieving organizational goals by reducing the risk of adverse impacts and maximizing beneficial impacts. In internal control, impact is also important to evaluate and manage. Through effective supervision, potential negative impacts such as fraud, abuse of authority, or rule violations can be identified and prevented before they cause significant harm. Conversely, the positive impact of successful monitoring can mean improved efficiency, timeliness, compliance, and operational quality. By understanding and considering the impact in decision-making and implementation of supervision, a leader can optimize organizational performance, minimize risk, and achieve desired results. The definition of negative impact has nothing to do with the intention or attempt to persuade, convince, or influence others with bad intentions. In contrast, negative impact refers to the adverse or unintended consequences or consequences of an action or decision. Negative impacts can occur in various contexts, both within the scope of individuals, organizations, and society in general. For example, in an environmental context, negative impacts can mean environmental damage due to pollution or illegal logging. In the context of health, negative impacts can mean the onset of disease or adverse side effects due to improper use of drugs. In a social context, negative impacts can mean conflict, violence, or marginalization of certain groups. The definition of negative impact has more to do with adverse outcomes or effects, undesirable, or contrary to desired goals or values. Negative impact is not associated with active efforts to influence others with bad intentions.

National Infrastructure Development

Development is an effort to change based on certain views that are influenced by historical experience, the reality of the circumstances faced, and the interests of the parties involved in making development decisions. Development has two different meanings.

The first meaning of development is more focused on economic growth, which is concerned with quantitative aspects of production and use of resources. This approach emphasizes increasing economic output, Gross Domestic Product (GDP) growth, investment, job creation, and increasing per capita income. Development in this context refers more to efforts to increase a country's economic prosperity. The second meaning of development is more focused on social change and the redistribution of goods as well as the improvement of social relations. This approach emphasizes the distribution of changes in the social structure of society by reducing discrimination and exploitation and increasing equal opportunities and a balanced distribution of development benefits to all components of society. Social development involves efforts to improve the quality of life, equitable access to basic services such as education, health, clean water, sanitation, and social justice.

The definition of infrastructure according to the American Public Works Association (Stone, 1974 in Kodoatie, R., 2005) and Presidential Regulation of the Republic of Indonesia Number 38 of 2015 describes infrastructure as physical and non-physical facilities built or needed by the government to provide essential services to the community and support economic and social growth. Infrastructure includes various types of technical, physical, system, hardware, and software facilities needed in various sectors, such as transportation, energy, clean water, sanitation, telecommunications, communication networks, education, health, and so on. The purpose of infrastructure development is to facilitate services to the community, meet basic needs, improve the quality of life, and encourage sustainable economic growth. Infrastructure becomes the basis for government functions and provides essential services such as the provision of clean water, electricity, sewage treatment, transportation, and other services needed in daily life. Infrastructure also includes systems and networks that support interaction and connectivity between regions and communities. The definition of infrastructure provided by the American Public Works Association and the regulation of the President of the Republic of Indonesia underscores the importance of infrastructure in supporting sustainable social and economic development. The development of good and well-managed infrastructure will provide far-reaching benefits to society, increase productivity, and create new opportunities for sustainable growth and development.

The goal of development is to create sustainable social and economic progress with the principles of equality and justice for all Indonesian people. Some of the important components of the development aspect you mentioned are as follows:

1. Economic Development: Focus on increasing people's income through various potential economic activities. Economic development goals include increased productivity of agriculture and non-agricultural sectors, improved efficiency, and growth of industry and the public service sector at large. By encouraging economic growth, it is expected to create more jobs, higher incomes, and improve the welfare of society in general.
2. Environmental Development: Aims to maintain ecological balance and create natural conditions of a hospitable and friendly environment. Environmental development focuses on sustainable natural resource management, ecosystem protection, pollution control, greenhouse gas emission reduction, and renewable energy development. In development, it is important to pay attention to environmental impacts and preserve nature for the sustainability of ecosystems and the quality of life of the community.
3. Institutional Development: Encourage community participation in development activities, improve administrative work procedures, decentralization and resource mobilization, and strengthen institutions. Institutional development aims to strengthen institutions and mechanisms that can support the implementation of development effectively and efficiently. By encouraging active community participation and improving good governance, it is hoped that development can run better and in accordance with the needs and aspirations of the community.

4. Improving the Quality of Education: Physical and social development includes efforts to improve and improve the quality of education. It involves the construction and improvement of educational facilities such as school buildings, libraries, laboratories, and other facilities. In addition, it is necessary to develop the expertise of educators, provide quality educational materials, and increase the accessibility of education for all levels of society.

5. Improving the Quality of Service Facilities: Physical and social development also involves efforts to improve the quality of public service facilities such as hospitals, community health centers, clean water facilities, sanitation facilities, and public transportation. The goal is to improve the accessibility and quality of services provided to the community so that basic needs such as health, clean water, and transportation can be fulfilled properly.

6. Infrastructure Development: Physical infrastructure such as roads, bridges, airports, ports, and telecommunication systems are an important part of physical and social development. Good and integrated infrastructure has a vital role in supporting economic growth, facilitating the distribution of goods and services, and increasing connectivity between regions. Adequate infrastructure also has a positive impact on people's welfare and increases the competitiveness of a region.

Physical and social development is closely related to the fulfillment of basic community rights, including the needs of food, clothing, shelter, education, and health. Through the improvement and development of infrastructure facilities, people can access public services more easily, increase economic productivity, and improve social conditions. However, in infrastructure development, it is important to pay attention to the impact on the environment and surrounding communities. Careful planning, good management, and community participation in decision-making processes are needed to ensure sustainable, inclusive, and respectful development of community rights.

Digital Age

In the digital era, rapid technological developments have a significant impact on society. There are both positive and negative impacts associated with the use of technology in everyday life. Some of the positive impacts of the digital age are as follows:

1. Easy Access to Information: Digital technology allows easy access to information from various sources. People can quickly search for information, knowledge, and references needed for daily activities, education, and self-development.

2. Communication Efficiency: Digital technologies such as the internet, social media, and instant messaging apps facilitate communication between individuals, family, friends, and co-workers. Messages can be sent quickly and efficiently without being limited by geographical distance.

3. Increased Social Connectedness: The digital age allows people to connect with people all over the world. Social media and online communication platforms facilitate social interaction, collaboration, and exchange of ideas with people from different cultural backgrounds and interests.

4. Advancement of Education: Digital technology has brought about transformation in education. Access to online learning resources, online courses, and e-learning platforms allows people to continuously learn and develop new skills without being limited by time and place.

However, in addition to its positive impacts, the digital age also brings several negative impacts, including:

1. Over-dependence: Excessive use of technology can lead to negative dependence. For example, addiction to social media, online gaming, or excessive consumption of digital content can disrupt life balance and mental health.

2. Security and Privacy Risks: The use of digital technology also involves security and privacy risks. Personal data can be exposed or misused, and unwise use of technology can increase the risk of fraud, misuse of information, or cyberattacks.

3. Impact on Behavior and Culture: The digital age has provided easy access to content that has a negative impact on behavior and culture, especially on children and adolescents. Inappropriate or inappropriate content can affect their values, behavior, and identity.

4. Digital Divide: In some areas, the digital divide is still a problem. Limited access to digital technology can result in gaps in access to information, educational opportunities, and the ability to keep up with technological developments. In the face of the negative impacts of the digital age, it is important for parents and society in general to take a role in supervision and education regarding the use of technology.

METHOD

In this study, the author used qualitative research methods with a case study approach. Bodgan and Taylor (2002) define qualitative research as research that produces descriptive data in the form of written or spoken words of people or observed behavior. This definition focuses on the type of data collected in the study, ie. qualitative descriptive data. In other words, qualitative research produces descriptive data and aims to find the meaning of a phenomenon. Qualitative research begins with exploring a specific area, gathering data, and generating ideas and hypotheses from that data, mostly through what is called inductive reasoning. The secondary source of data for this study is the Government in infrastructure development in the digital era. Scientific documents or journals related to research problems. The method of collecting this research data is semi-participant observation, because the meaning of the phenomenon is well understood by researchers using a qualitative approach.

RESULTS AND DISCUSSION

Improving coordination between stakeholders and addressing issues of funding, land acquisition, and risk sharing between government and business entities is critical to accelerating infrastructure development in the country. The steps taken by the government, such as the establishment of the Committee for the Acceleration of Priority Infrastructure Provision (KPPIP), the issuance of laws to accelerate land acquisition, and the provision of project preparation facilities and financial support, are expected to improve the quality of project preparation, attract investment, and overcome existing obstacles. It is important for the government to continue to improve coordination between relevant institutions and stakeholders as well as evaluate and update relevant policies so that the progress of infrastructure development can be faster and more effective. With strong support from the government and good collaboration between the public and private sectors, it is hoped that infrastructure development in Indonesia can continue and contribute to economic growth and public welfare.

Infrastructure development does have a very important role in spurring economic growth and improving people's welfare. However, the construction services sector is also faced with several problems that need attention. Some common problems in the national construction services sector include:

1. Manpower Qualification: In the face of the increase in the infrastructure development budget, it is necessary to pay attention to the qualification of construction labor. Efforts are needed to improve the competence of the workforce to match the demands of increasingly complex and modern infrastructure projects. This can be done through training, vocational education, and skills development programs.

2. **Competence and Quality of Business Entities:** It is important to improve the competence and quality of business entities as service providers in the construction sector. Business entities need to have adequate technical, managerial, and financial capabilities to carry out infrastructure projects properly. In this case, the role of certification and accreditation can help ensure the quality and professionalism of construction business entities.

3. **Policies and Arrangements:** Policies and arrangements are needed that support the acceleration of infrastructure development. This includes simplifying licensing procedures, improving the procurement system, cutting red tape, and providing incentives that encourage active private sector participation in infrastructure development.

4. **Risk Management:** Infrastructure development is also faced with risks that need to be managed properly. Risks such as uncontrolled project costs, project delays, policy changes, and external factors can negatively impact the smooth running of infrastructure development. Therefore, it is important to have an effective risk management strategy in every infrastructure project.

In overcoming the problems of the construction services sector, cooperation between the government, the private sector, and other related institutions is very important. By paying attention to labor qualifications, improving the competence of business entities, implementing supportive policies, and managing risks well, it is expected that the construction services sector can play an optimal role in infrastructure development and state economic growth.

The implementation of digital infrastructure has a significant impact on economic activity. Here are some of the impacts:

1. **Ease of Access:** Digital infrastructure enables easy and fast access to information, products, and services. This allows economic actors to interact and transact easily, without being limited by geographical restrictions. In trade, the existence of e-commerce allows business actors to sell their products online and reach a wider market.

2. **Operational Efficiency:** Digital infrastructure enables more efficient business and operational processes. With the existence of digital systems for data management, information processing, and automation, companies can reduce costs, time, and resources needed in carrying out business activities. For example, the use of cloud computing can reduce the cost of hardware investment and enable flexible data storage and processing.

3. **Business Innovation and Growth:** Digital infrastructure creates space for innovation and new business growth. In the digital age, many technology companies are emerging with new solutions and business models that disrupt existing industries. Companies that are able to make good use of digital infrastructure can develop innovative products and services, improve operational efficiency, and better face competition.

4. **Increased Productivity:**

Digital infrastructure enables increased productivity in various sectors of the economy. With technology in place that supports efficient collaboration and communication, teams can work effectively even in different locations. In addition, the adoption of the right technology can also improve efficiency in supply chain, inventory management, marketing, and customer service.

5. **Improved Quality of Life:** Digital infrastructure can also have a positive impact on people's quality of life. For example, easy access to online healthcare can improve accessibility and equity of health services. Increased connectivity also enables distance education and access to a wider range of educational resources, improving educational accessibility for the community.

In conclusion, digital infrastructure development has a significant impact on economic activities, including ease of access, operational efficiency, innovation and business growth, increased productivity, and improved quality of life of the community. Therefore, it is important to continue to encourage the development of reliable and affordable digital infrastructure to support sustainable economic growth.

Infrastructure development has a significant positive impact on economic conditions in the surrounding area. Some of the positive impacts that can occur are:

1. **Local Employment:** Infrastructure development can be a source of employment for local communities. By involving local labor in development projects, unemployment can be reduced and people's incomes increased. This will have a positive impact on the regional economy.
2. **Development of telecommunication infrastructure systems** facilitates access to data and information, which can increase productivity and economic growth. With easier access, businesses and industries can develop better and contribute to an increase in GDP.
3. **Regional Economic Improvement:** Infrastructure development such as stadiums, toll roads, or airports can increase tourism and investment attractiveness in the area. This has an impact on the growth of the tourism, hospitality, culinary, and other businesses around the infrastructure, which in turn provides economic benefits to the local community.

Despite the positive impacts, it is also important to minimize the negative impacts of infrastructure development on the environment and society. Some steps that can be taken include:

1. **Proper Environmental Management:** Carry out environmental management in accordance with SOPs to minimize negative impacts on the environment. This includes monitoring, pollution control, and protection of ecosystems affected by development.
2. **Risk Analysis:** Conduct a risk analysis of the possible impacts of infrastructure development, so that preventive measures can be taken to reduce or avoid these risks.
3. **Community Consultation and Approval:**

It is important to involve the community in the infrastructure development process. Consultation and obtaining the consent of local communities can help minimize any discontent and protests that may arise. In addition, there is a need for compensation or solutions for affected residents, such as adequate relocation or the opening of new job opportunities.

By maintaining a balance between positive and negative impacts, and involving communities in the development process, infrastructure development can provide significant economic benefits without neglecting social and environmental aspects

CONCLUSION

From this description, the following conclusions can be drawn: Infrastructure development is a service provided by the state to the people as an integral part of national development. Adequate infrastructure provides a strong foundation for sustainable economic growth and improvement of people's quality of life. The government is responsible for providing the infrastructure needed by the people, such as highways, bridges, airports, ports, power grids, telecommunications, clean water, and transportation systems. A good, well-managed infrastructure will deliver far-reaching benefits, including improved connectivity, mobility, accessibility, and efficiency in various sectors of the economy.

Sustainable infrastructure development can boost economic growth by creating new jobs, attracting domestic and foreign investment, and increasing a country's competitiveness in the global market. Adequate infrastructure also helps in the provision of better public services, such as education, health, and sanitation. In addition, good infrastructure can also facilitate the process of democratization and decentralization by strengthening connectivity between regions, increasing public participation, and expanding access to information and communication. The government needs to play an active role in planning, implementing, and managing infrastructure development efficiently and transparently. It is important to involve stakeholders, including communities, in decision-making processes related to infrastructure development. Thus, the government can ensure that the infrastructure built is in accordance with the needs of the community, effective in its use, and sustainable in the long term. In the context of national development, infrastructure development is a sustainable effort to meet the needs of the community, encourage economic growth, and achieve broader development goals, such as poverty alleviation, equitable development, and improving the quality of life.

BIBLIOGRAFI

- Bor, J., Cohen, G. H., & Galea, S. (2017). Population health in an era of rising income inequality: USA, 1980–2015. *The Lancet*, *389*(10077), 1475–1490.
- Clark, S., MacLachlan, M., Marshall, K., Morahan, N., Carroll, C., Hand, K., Boyle, N., & O'Sullivan, K. (2022). Including digital connection in the United Nations Sustainable Development Goals: A systems thinking approach for achieving the SDGs. *Sustainability*, *14*(3), 1883.
- Faturoti, B. (2022). Online learning during COVID19 and beyond: a human right based approach to internet access in Africa. *International Review of Law, Computers & Technology*, *36*(1), 68–90.
- Gasparyan, A. Y., Yessirkepov, M., Voronov, A. A., Gerasimov, A. N., Kostyukova, E. I., & Kitas, G. D. (2015). Preserving the integrity of citations and references by all stakeholders of science communication. *Journal of Korean Medical Science*, *30*(11), 1545–1552.
- Hess, A. N., LaPorte-Fiori, R., & Engwall, K. (2015). Preserving patron privacy in the 21st century academic library. *The Journal of Academic Librarianship*, *41*(1), 105–114.
- Kaliisa, R., & Michelle, P. (2019). Mobile learning policy and practice in Africa: Towards inclusive and equitable access to higher education. *Australasian Journal of Educational Technology*, *35*(6), 1–14.
- Lerner, J. S., Li, Y., Valdesolo, P., & Kassam, K. S. (2015). Emotion and decision making. *Annual Review of Psychology*, *66*, 799–823.
- Liu, Y., Chen, J., Chen, K., Liu, J., & Wang, W. (2023). The associations between academic stress and depression among college students: A moderated chain mediation model of negative affect, sleep quality, and social support. *Acta Psychologica*, *239*, 104014.
- Lutz, C. (2019). Digital inequalities in the age of artificial intelligence and big data. *Human Behavior and Emerging Technologies*, *1*(2), 141–148.
- Nawaz, Z., & Khan, I. (2016). Leadership theories and styles: A literature review. *Leadership*, *16*(1), 1–7.
- O'Shea, S., Southgate, E., Jardine, A., & Delahunty, J. (2019). 'Learning to leave' or 'striving to stay': Considering the desires and decisions of rural young people in relation to post-

- schooling futures. *Emotion, Space and Society*, 32, 100587.
- Perwej, Y., Abbas, S. Q., Dixit, J. P., Akhtar, N., & Jaiswal, A. K. (2021). A systematic literature review on the cyber security. *International Journal of Scientific Research and Management*, 9(12), 669–710.
- Raj, A., Dwivedi, G., Sharma, A., de Sousa Jabbour, A. B. L., & Rajak, S. (2020). Barriers to the adoption of industry 4.0 technologies in the manufacturing sector: An inter-country comparative perspective. *International Journal of Production Economics*, 224, 107546.
- Saeed, S., Altamimi, S. A., Alkayyal, N. A., Alshehri, E., & Alabbad, D. A. (2023). Digital Transformation and Cybersecurity Challenges for Businesses Resilience: Issues and Recommendations. *Sensors*, 23(15), 6666.
- Shairgojri, A. A. (2022). The pragmatic role and heights of women in nation building. *Journal of Women Empowerment and Studies (JWES) ISSN: 2799-1253*, 2(03), 31–37.
- Smith, B., & Magnani, J. W. (2019). New technologies, new disparities: the intersection of electronic health and digital health literacy. *International Journal of Cardiology*, 292, 280–282.
- Van Laar, E., Van Deursen, A. J. A. M., Van Dijk, J. A. G. M., & De Haan, J. (2017). The relation between 21st-century skills and digital skills: A systematic literature review. *Computers in Human Behavior*, 72, 577–588.

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