

The Use of Communication Media in Increasing Understanding and Utilization of SiBadra Services for the Generation of Digital Natives and Digital Immigrants in Bogor City



Fahmi Fuad Cholagi¹, Pudji Muljono², Wahyu Budi Priatna³

¹Agricultural and Rural Development Communication Study Program, Faculty of Human Ecology, IPB University Bogor, Indonesia

²Department of Communication Science and Community Development, Faculty of Human Ecology, IPB University, Indonesia

³Department of Agribusiness, Faculty of Economics and Management, IPB University Bogor, Indonesia

ABSTRACT: Bogor is one of the city in Indonesia that already adapt technology advancement. In Government sector, already adopted some policy that including of using technology support. One of them are feature that let public giving their thought and complaints to governments trough a specific online-application that called SiBadra whos made by the government. Adopting innovation about SiBadra which mainly use a certain communication media to spread the innovation itself, requires the involvement of various parties. The adoption of this innovation will gave birth to a generation that can utilize of using communication media of SiBadra services in Bogor City. Industrial era of 4.0 presenting two type of generation in terms of using media, those are digital natives and immigrants which form as a social system as well as a form of government readiness and alignment in efforts to digitalize the use of media. This research are closely related to communication media as a form of communication channel in the theory of Diffusion of Innovation initiated by Rogers in 1983. The aim of this study is to analyze the existing relation between communication channels and namely communication media in the adoption of SiBadra service innovation in Bogor City for the two generation which digital native and digital immigrants. The result of this research shows that the characteristic of digital natives and digital immigrants have a relation in the stage of adopting an innovation. The relation between them is showing positive terms which in increasing understanding and utilization of using the media. Relation that related to the stage of adopting an innovation such as understanding and utilization are supported by age, education, gender, and experience, which have significant relation in the stages of adopting an innovation. The second relation that related is the communication media. Communication media has a positive effect in the relation of the understanding of using the media and utilization of SiBadra services in Bogor City. Indicator that support the relation between communication media, namely print, electronic and social media.

KEYWORDS: communication media, digital immigrants, digital natives, SiBadra

I. INTRODUCTION

The industrial era 4.0 explains that Indonesia is doing a lot of development, related to human resource development or related to technology in a more advanced era. Development does not only stop with these two things, but is also closely related to the economy and empowerment that exists in each country in carrying out sustainable development (Waskita 2005). Development communication is closely related to the dissemination of information or messages related to reform, especially related to sustainable development. Development communication has the meaning of a method related to art that is closely connected with science which is mainly used to convey information with the aim of consciously or unconsciously using it to accelerate transformation in a country (Floor *et al.* 2022). Development in a country is related to sustainable development. There are 17 sustainable development programs related to a country. One of them is innovation and infrastructure (Cangara 2020). The concept of development is related to innovation. Innovation communication becomes a momentum in spreading innovation which can be sourced from ideas, concepts, technology, to government policies issued.

Innovation communication is a way of conveying messages, where the message is related to an idea, concept, ideas, even a policy that is new from a message sender to the recipient of the message in the context of village to city development in a country (Sumardjo 2014). Technological changes in Indonesia are marked by digitalization which is starting to develop. The industrial era

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4.0 in Indonesia is marked by changes in media use, where what was initially limited to electronics and print has now shifted to digitalization. The large number of internet users in Indonesia marks this change. The number of internet users in Indonesia is 191 million individuals (David *et al.* 2017). Changes in digital technology occur in various sectors, one of which is in the government sector, namely with the existence of smart cities.

The city of Bogor, as one of the cities in Indonesia that has technological advances, has adopted a policy related to complaints. This policy was adopted from the PUPR Ministry, where the city of Bogor makes public complaints to the Bogor City government easier, namely by submitting them online. There is a lot of information regarding the adoption or use of complaint services provided by the government in the city of Bogor in various media. The online complaint service is named SiBadra. SiBadra is an abbreviation for information system for various complaints and suggestions (Murhana *et al.* 2016). SiBadra can be said to be an innovation that facilitates complaints received by various regional organizations in the city of Bogor. Based on data from the Bogor City Communication and Information Service, the number of complaints in 2023 is 1071.

The number of complaints compared with the number of people in Bogor City is not comparable. This problem is related to a problem that is often known as the spread of innovation. The spread of innovation or what is often known as the diffusion of innovation can be interpreted as an event or event from a special form of communication theory, and its uses are widely used in various areas of life (Haryadi 2018). One of them is activities related to new ideas that are socialized to the community. In connection with the innovation that was disseminated and adopted, especially the complaint system known as SiBadra, there were several problems. The implementation of innovation adoption is related to communication channels which are closely related to communication media (Hawari *et al.* 2023).

The adoption of innovation, which is mainly related to the use of communication media in spreading SiBadra innovation, requires the involvement of various parties. Adoption of innovation requires all parties or generations to be involved and take part in a change in attitudes and behavior regarding innovation, so that it is used as an answer to problems (Chairunnisa and Sasmita 2022). The birth of a generation can support the use of communication media in the adoption of SiBadra services in Bogor City. The digital generation is a benchmark for supporting the use of communication media in adopting SiBadra Service innovations in Bogor City. The digital generation is divided into two categories, namely the digital natives generation and the digital immigrant generation (Pensky 2009). The digital natives generation are individuals who are very close to cyberspace or a generation that cannot be separated from the internet (Rastati 2018). Another definition of this generation can be said to be a group of individuals, a combination of generations Y and Z, or in other words, the generation that was born after the internet, so that their lives cannot be separated from what is called the internet.

Communication media in the adoption of an innovation is used as a benchmark for innovation to be adopted by society. In connection with the context of development communication and closely related to innovation communication, media is something that needs to be paid attention to, especially in the industrial era 4.0. Media is one of the benchmarks in innovation communication which is directly involved and involved in spreading messages about new ideas. This involvement can be said to be a decision by individuals and communities from various generations to participate in activities with or without communication media. The use of media is closely related to development and innovation directly. The industrial era 4.0 presents various generations in media use, these generations are digital natives and immigrants as a form of social system and a form of government readiness and support in efforts to digitalize media use. This research is closely related to communication media as a form of communication channel in the theory of diffusion of innovation which was coined by Rogers in 1983. So this research raises the question of how communication media is related to the adoption of SiBadra service innovation in Bogor City for the digital natives and digital immigrant generation. With the aim of analyzing the existing relationship between communication channels, namely communication media, in the adoption of SiBadra service innovations in Bogor City for the digital natives and digital immigrant generation.

II. LITERATURE REVIEW

A. Innovation Diffusion

The Diffusion of Innovation Theory originates from a two-stage communication model. Diffusion is a process where innovation is communicated through channels and over a certain period, carried out in a social system (Saleh *et al.* 2022). Diffusion of innovation can be said to be a special form of communication. Awareness of a communication activity is a fundamental process, like it or not, and suggests that it is easy to understand and control (Ruben and Stewart 2014). Diffusion of innovation comes from the two words diffusion and innovation. Diffusion has the meaning of a spreading process, while innovation can be said to be an idea or something that is said to be new and is subjective in nature as to how each individual and group manages problems that are considered new.

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Ideas considered new by every individual and the public constitute innovation (Rusmiarti 2015). Renewal is not just about ideas, but in the form of a physical tool or related idea that has never been used. Other research by Aji *et al.* (2019) revealed that new programs that have not been implemented or used by the community can be said to be renewal or innovation. Communication in the diffusion of innovation usually carries information. The novelty of the message makes diffusion special (Tjahjadi *et al.* 2021). Diffusion of innovation is defined as a form of change that occurs in the social sphere of society. The spread of innovation is a way or process of change in members of society, related to the social structure in each environment, rejected and adopted causing consequences of changes in the social system. The diffusion of innovation has the function of conveying updates from communicators who receive messages from mass media, to obtain a very strong effect so that it can influence the audience (Nurhidayah 2022).

Diffusion of innovation has several elements, namely innovation or what is often referred to as an idea or concept or policy that is considered new by each party subjectively. The speed of adoption for individuals varies greatly depending on the characteristics of the innovation as follows: Relative advantages, Compatibility, Complexity, Trialability, and Observability (Haryadi 2018). The next element is related to communication channels. Communication channels are said to be a way or path for the diffusion of innovation in a social system. The next element, time as an investment in the diffusion of innovation so that the innovation is adopted by the social system. The final element of innovation is the social system, as an element.

In addition, the diffusion of innovation can be adopted by members of the social system through several stages. The adoption of innovation is a decision by individuals and audiences to use a new idea or concept in society (Musyafak and Ibrahim 2005). The use of new ideas may or may not continue. The theory of diffusion of innovation has four stages, namely the knowledge, persuasion, decision, implementation and confirmation stages (Rogers and Shoemaker in Ruliana and Lestari 2019).

The next stage is related to the adoption of an innovation. At this stage, individuals and society have the decision to continue or reject innovation (Fuah and Ganggi 2022). The attitude of accepting or rejecting innovation is carried out at the confirmation stage, whether the audience uses an innovation or even opposes or discards it (Winangsih 2018). At the innovation adoption stage, this can be proven by the way the innovation can be utilized or simply understood.

B. Communication Media

The spread of innovation, so that the innovation can be adopted and understood, requires communication channels as a means of conveying messages. Communication media is used as a communication channel in the diffusion of innovation, so that innovation can be conveyed to the public. Media is a tool used to convey messages in the form of innovation to the public.

Mass media is basically divided into two categories and in its current development social media has become a form of media that is widely used by various generations (Ardianto *et al.* 2021). Mass media has become a tool in the current era as a source for disseminating information. Various media are increasingly developing. At first print media was a trend, now digital media has become the focus for the development of message delivery intermediaries.

The use of mass media as a form of communication in the adoption of innovation is an inseparable source. Basically, mass media is only divided into print media and electronic media. The era of industry 4.0 makes development and change real. The existence of digital media with internal involvement makes changes and developments in the media. The communication media used in the diffusion of innovation theory are print media, electronic media and social media (Saleh *et al.* 2022). Social media is a collection of software that allows individuals and communities to gather, share, communicate, and in certain cases collaborate with each other (Boyd 2009). Social media is defined as a medium on the internet that allows users to present themselves and interact, collaborate, share, communicate with other users and form virtual social bonds (Nasrullah 2022).

C. Digital Natives and Digital Immigrants

Innovations that can be adopted by the public basically require involvement from members of the social system. Based on Rogers' theory in 1983, it was stated that the involvement of members of the social system in the adoption of innovation has an inseparable role. Members of the social system consist of various existing generations.

The birth of the internet gave rise to various generations participating in using and operating the developments of the digital era. The development of media in the industrial era 4.0 has given rise to the birth of various generations. Pinsky in 2001 explained that the generations involved in internet use were divided into two groups. The first generation is a digital native, and the second generation is the result of the internet and digital media. This term gives rise to the generation born after the internet and the generation born before the internet.

There are basically two views on the definition of digital natives (Creighton 2018). Firstly, as the original generation was born in the digital era, it cannot be generally accepted, it should be explained in detail. The generation of digital natives has variations for each individual. Differences between digital natives such as society, region, and existing technological advances always change

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over time. By definition, digital natives cannot only be measured from the age variable, but must be measured using other variables for each individual.

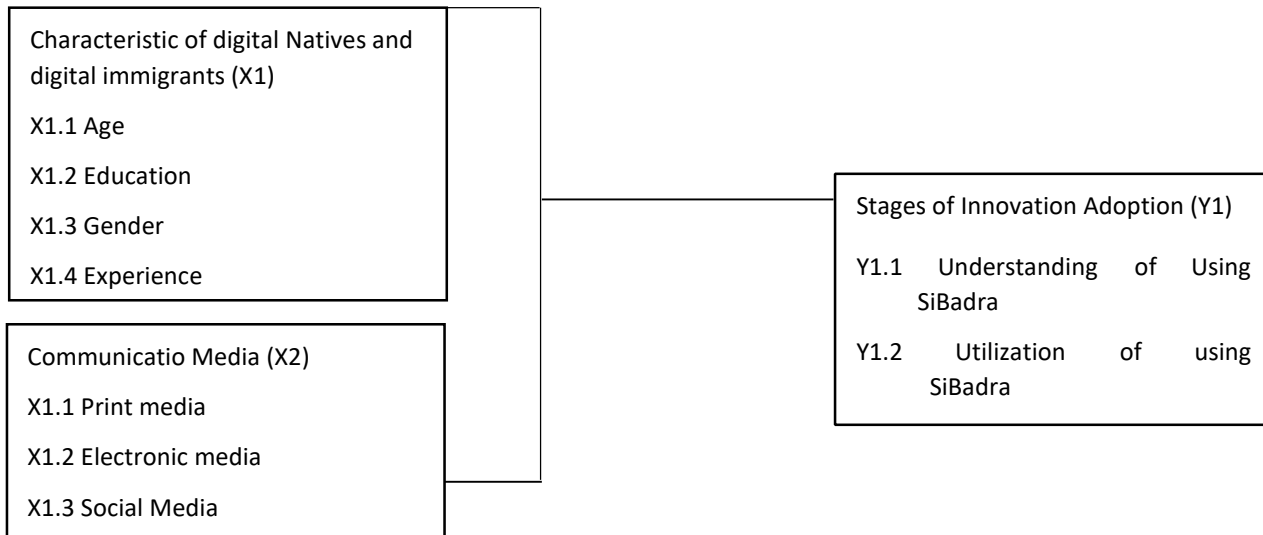
The digital natives generation can be said to be a generation that was born and grew along with developments in technology (Rakhman *et al.* 2019). The digital natives generation is characterized by using the virtual world to become the real world for the digital natives generation. One of the reasons is the development of the right brain of this generation of digital natives. This digital natives theory was originally discovered by Prensky in 2001. By definition, digital natives are related to the internet generation. The generation of digital natives or what is often referred to as the internet generation is basically divided into two, namely digital natives and digital immigrants (Rastati 2018). At one time, prefer reading in hardcopy format, such as books, newspapers, etc. The digital immigrant generation believes that much of its knowledge comes from writing (values text more), works consistently and gradually, so it takes more time, and finally this generation is just starting to learn technology (Pensky 2001).

III. FRAMEWORK

This research uses a framework of thought as a support for research that is measured in the field. The framework of thinking departs from the characteristics of the digital natives and digital immigrant generations, which are related to the diffusion of innovation in the use of communication channels. Media is one thing that is used to measure the relationship between the use of communication channels which leads to the stage of innovation adoption.

This research is related to innovation adoption, so it uses measurements based on the theory of Rogers (2003), Damastuti (2020), Rosyida *et al.* (2021), Prensky (2001), Badri (2022), most recently by Anderson and Jiang (2018) and finally research by Azmi (2020) including the characteristics of digital natives and digital immigrants, communication media, and the stages of innovation adoption.

The hypothesis in this research is that there is a relationship between the characteristics of digital natives and digital immigrants. The second hypothesis is that there is a relationship between communication media originating from print, electronic, and social media in the adoption of SiBadra service innovations for the digital natives and digital immigrants generation in Bogor City.



IV. METHODOLOGY

This research uses a quantitative approach, and has an understanding of stages that are based on assumptions, then variables are determined, until they are analyzed using valid research methods. The method used is a survey, and has the meaning of information being linked to respondents and using a questionnaire instrument. Surveys are used from population data or samples representing the entire population. Survey research can be said to be research taking and using samples from a population using questionnaires as the main data collection tool (Effendi and Tukiran 2015).

Before carrying out data analysis, a validity test is carried out to measure the validity of the research instrument used. The applications used to measure variable validity and reliability tests are the SPSS and Microsoft Excel applications. The validity test results were declared valid and reliable. The statement is valid by looking at the correlation coefficient ($r_{count} \geq 0.3$ (r_{table})).

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Meanwhile, reliability. Instrument if a variable statement is reliable, what if the Cronbach's Alpha value is more than 0.600, namely 0.902.

This research uses primary data and secondary data. All data obtained directly from the results of questionnaires in the field when distributing questionnaires is used as primary data. Data obtained directly can be said to be primary data, while data obtained indirectly is called secondary data. Data analysis here uses Spearman rank correlation. Data analysis using inferential statistics with testing using Spearman rank can be shown with the formula below as follows (Kriyantono *et al.* 2014).

$$r_s = 1 - \frac{6 \sum d_i^2}{n(n^2 - 1)}$$

r_s = Spearman Rank Correlation Coefficient d_i = Difference for Each Rank

V. RESULTS AND DISCUSSION

The majority of respondents who know and have experience related to adopting SiBadra services that use digitalization are digital natives. These results prove that as many as 60.6% of the 150 respondents from the digital native generation adopted SiBadra services in Bogor City. This generation understands and utilizes the stages of innovation adoption. The age described by Pensky in 2001 explains that the generation of digital natives is aged between 17 and 34 years. The generation over the age of 34 can be said to be the digital immigrant generation. The education level of the digital natives generation as the majority of respondents is at the higher education level, namely where they have completed university or undergraduate studies and equivalent. These results are proven by the respondents who filled in at the higher education level, namely 57.7%. Meanwhile, medium education was 37.5% and low education was 4.8%. In terms of gender, the majority who use and understand the use of SiBadra as a medium for complaints about digital services owned by the Bogot City government is 53.2%, while the remaining 46.8% who adopt SiBadra services are male.

A. The Relationship between the Characteristics of Digital Natives and Digital Immigrants with the Stages of Innovation Adoption

Based on the output of the Spearman correlation test results below, it can be seen the relationship between each indicator in the characteristic variables of digital natives and digital immigrants on understanding and utilization in the innovation adoption stage in the following table:

Table 1. Output of the Spearman Correlation Test Results

Characteristics of Digital Natives and Digital Immigrants	Stages of Innovation Adoption			
	Understanding		Utilization	
	r_s	Sig.	r_s	Sig.
Age	0,372	0,000	0,334	0,000
Education	0,354	0,000	0,336	0,000
Gender	0,451	0,000	0,489	0,000
Experience	0,354	0,000	0,349	0,000

The results of the analysis show that age (X1.1) on understanding and utilization in the innovation adoption stage has a significance value of 0.000 and this value is smaller than 0.050 (0.000 < 0.050), so it can be concluded that age has a significant relationship with understanding and utilization in the innovation adoption stage. adoption of innovation.

Education (X1.2) on understanding and utilization in the innovation adoption stage has a significance value of 0.000 and this value is smaller than 0.050 (0.000 < 0.050), so it can be concluded that education has a significant relationship with understanding and utilization in the innovation adoption stage. Gender (X1.3) on understanding and utilization in the innovation adoption stage has a significance value of 0.000 and this value is smaller than 0.050 (0.000 < 0.050).

So it can be concluded that gender has a significant relationship with understanding and utilization in the innovation adoption stage. Experience (X1.2) regarding understanding and utilization in the innovation adoption stage has a significance value of 0.000 and this value is smaller than 0.050 (0.000 < 0.050), so it can be concluded that experience has a significant relationship with understanding and utilization in the innovation adoption stage.

B. The Relationship between Communication Media and the Stages of Innovation Adoption

Based on the output of the Spearman correlation test results below, it can be seen the relationship between each indicator in the communication media variable on understanding and utilization in the innovation adoption stage in the following table:

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Table 2 Output of the Spearman Correlation Test Results

Communication Media	Stages of Innovation Adoption			
	Understanding		Utilization	
	r_s	Sig.	r_s	Sig.
Print Media	0,581	0,000	0,552	0,000
Electronic Media	0,557	0,000	0,495	0,000
Social Media	0,414	0,000	0,441	0,000

The results of the analysis show that print media (X2.1) on understanding and utilization in the innovation adoption stage has a significance value of 0.000 and this value is smaller than 0.050 ($0.000 < 0.050$), so it can be concluded that print media has a significant relationship with understanding and utilization. in the innovation adoption stage.

Electronic media (X2.2) on understanding and utilization in the innovation adoption stage has a significance value of 0.000 and this value is smaller than 0.050 ($0.000 < 0.050$), so it can be concluded that electronic media has a significant relationship with understanding and utilization in the innovation adoption stage. Social media (X2.3) on understanding and utilization in the innovation adoption stage has a significance value of 0.000 and this value is smaller than 0.050 ($0.000 < 0.050$), so it can be concluded that social media has a significant relationship with understanding and utilization in the innovation adoption stage.

VI. CONCLUSION AND SUGGESTIONS

A. Conclusion

Based on the research results, it is clear that the characteristics of digital natives and digital immigrants are related in the stages of innovation adoption. This relationship is positive in increasing understanding and utilization of usage. Relationships related to the stages of innovation adoption such as understanding and utilization are supported by age, education, gender, and experience of use which have a significant relationship in the stages of innovation adoption such as understanding and utilization.

The second relationship is related to communication media. The research results can say that communication media has a positive relationship with understanding of using SiBadra, and also utilization in using SiBadra services in Bogor City. Indicators that support the relationship between communication media such as print, electronic, and social media.

B. Suggestion

Increased response from SiBadra managers both from Whatsapp and Instagram and even from the SiBadra service application in Bogor City must provide a faster response so that complaints are quickly resolved. No longer waiting and taking quite a long time to complain about problems felt by the digital natives and digital immigrant generation. So that complaints that need to be resolved immediately can be resolved quickly without waiting a long time.

The next suggestion relates to information in the media. The information in the media must explain a lot about the use of SiBadra. Especially in the industrial era 4.0. There must be a lot of information conveyed on social media regarding the use of SiBADRA so that the response in the media will be faster so that complaints can be resolved properly.

REFERENCES

- 1) Aji, AB., Utari, P., & Slamet, J. (2019). Strategi Difusi Inovasi BKKBN dalam Menjangkau Generasi Digital Natives. *Research Fair Unisri*, 3(1).
- 2) Ardianto, E., Komala, L., & Karlinah, S. (2017). *Komunikasi Massa Suatu Pengantar*. Bandung: Simbiosis Rekatama Media.
- 3) Boyd, AD., Jardine, CG., & Driedger, SM. (2009). Canadian Media Representations of Mad Cow Disease. *Journal of Toxicology and Environmental Health, Part A*, 72(17-18), 1096-1105.
- 4) Cangara. (2020). *Komunikasi Pembangunan Telaah untuk Memahami Konsep, Filosofi, serta Peran Komunikasi Terhadap Pembangunan dan Pembangunan Komunikasi dalam Era Digital*. Jakarta: PT. Raja Grafindo Persada.
- 5) Chairunnisa C., & Sasmita, S. (2022). Difusi Inovasi dalam Program Sekolah Keluarga: Pengalaman dari Kota Bukittinggi. *Spirit Publik Jurnal Adminitrasi. Publik*. 17(2):118. doi:10.20961/sp.v17i2.64641.
- 6) Creighton, TB. (2018). Digital Natives, Digital Immigrants, Digital Learners: An International Empirical Integrative Review of the Literature. *Education. Leadership. Rev.* 19(1):132–140.
- 7) David, E.R., Sondakh, M., & Harilama, S. (2017). Pengaruh Konten Vlog dalam Youtube Terhadap Pembentukan Sikap Mahasiswa Ilmu Komunikasi Fakultas Ilmu Sosial dan Politik Universitas Sam Ratulangi. *Acta Diurna Komunikasi*, 6(1).
- 8) Effendi, S., & Tukiran. (2015). *Metode Penelitian Survey*. Jakarta: LP3ES.

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- 9) Fuah, S. M., Ganggi, R. I. P. Potret Analisis Difusi Inovasi dalam Publikasi Artikel Ilmiah di Lentera Pustaka. Berkala Ilmu Perpustakaan dan Informasi. 18(2):338–350. doi:10.22146/bip.v18i2.5123.
- 10) Floor, A., Ongkiko, IVC., & Lubis, DP. (2022). Pengantar Komunikasi Pembangunan. Bogor: IPB Press.
- 11) Hawari, A., Suwaryo, U., & Kartini, DS. (2023). Implementation of Change Management in Public Services Innovation in Bogor City. *Journal of Governance Innovation*, 5(2), 271-289.
- 12) Haryadi, T. (2018). Adaptasi Teori Difusi-Inovasi dalam Game “Yuk Benahi” dengan Pendekatan Komunikasi SMCR. *Jurnal Audience*, 1(1), 1-13.
- 13) Kriyantono, R., Kholifah, S., & Riani, YA. (2014). Model for Capacity Building in Behavior Change Communication (BCC) Program for HIV-AIDS Prevention in Malang, East Java. *Journal of Social Sciences Research*, 5.
- 14) Muhana, RA., & Manar, DG. (2022). Analisis Inovasi Kebijakan Sistem Informasi Berbagi Aduan dan Saran (SIBADRA) Kota Bogor untuk Penguatan Demokrasi dan Partisipasi Publik. *Journal of Politic and Government Studies*. 11(4), 78-92.
- 15) Musyafak, A., & Ibrahim, TM. (2005). Strategi Percepatan Adopsi dan Difusi Inovasi Pertanian Mendukung Prima Tani. *Analisis Kebijakan Pertanian*, 3(1): 20-37.
- 16) Nasrullah, R. 2022. Manajemen Komunikasi digital: Perencanaan, aktivitas, dan evaluasi. Jakarta: Kencana.
- 17) Nurhidayah, I. A. (2023). Diffusion of Innovation in Floating Cage Cages in Jeruk Sari Village, Tirta District, Pekalongan Regency.
- 18) Prensky, M. (2009). H. Sapiens Digital: From Digital Immigrants and Digital Natives to Digital Wisdom. *Innovate: journal of online education*, 5(3).
- 19) Rastati, R. (2018). Media Literasi Bagi Digital Natives: Perspektif Generasi Z Di Jakarta. *Kwangsan: Jurnal Teknologi Pendidikan*, 6(1), 60-73. doi:10.31800/jtp.kw.v6n1.p60--73.
- 20) Rakhman, RT., Piliang, YA., Ahmad, HA., & Gunawan, I. 2019. Eksperimen Media Analog pada Generasi Digital Native sebagai Respon Industri Kreatif. In *Seminar Nasional Seni dan Desain 2019* (pp. 367-371). State University of Surabaya:367–372.
- 21) Ruben, BD., & Stewart, LP. (2013). *Komunikasi dan Perilaku Manusia*. Jakarta: PT. Raja Grafindo Persada.
- 22) Ruliana, L. (2019). *Teori Komunikasi*. Depok: PT Raja Grafindo Persada.
- 23) Rusmiarti, DA. (2015). Analysis of the Diffusion Innovation and the Development of Work Culture in Bureaucratic Organization. *Jurnal Masyarakat Telematika Dan Informasi*. 6(2):85-100.
- 24) Saleh, A., Sasmita, HO., Lumintang, RWE., Suparman, Bakhtiar, Y., Wibowo, CT., Mintarti, Warcito. (2023). *Distribusi Informasi*. Bogor: IPB Press.
- 25) Sumardjo, Hubeis, AVS., Bintarti, A., Sedyaningsih, S., Rahman, AS., Rusli, Y. (2019). *Komunikasi Inovasi*. Banten: Universitas Terbuka.
- 26) Tjahjadi, E., Paramita, S., & Salman, D. (2021). Pembelajaran Era Pandemi Covid-19 di Indonesia (studi terhadap aplikasi Discord). *Koneksi*, 5(1), 83-89. doi:10.24912/kn.v5i1.10165.
- 27) Waskita, D. (2005). Komunikasi Pembangunan untuk Pemberdayaan. *Jurnal Organisasi. dan Manajemen*. 1:32–40.
- 28) Winangsih, R. (2018). Analisis Sistem Sosial Terhadap Adopsi Inovasi Kelestarian Lingkungan. *Prosiding. Seminar. Nasional. Prodi Ilmu Pemerintah*.



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