Factors Influencing Diffusion Of Development Administration Information System (Siapbang) Innovation To Increase Participation In Regional Development: Evidence From Brebes Regency, Indonesia

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ABSTRACT

Problem/Background (GAP): The use of the SIAPBang application is still relatively small. When compared with the number of internet access in Brebes Regency. This is a crucial problem because if there are only a few SIAPBang visitors, the purpose of this application needs to be conveyed, which impacts community participation in regional development. Therefore it is necessary to spread innovation to increase the number of application visitors. **Objective:** This study aims to find effective communication channels and strategies for spreading innovation. **Method:** This research uses a descriptive research method with a qualitative approach. It is collecting data using interview techniques, observation, and documents. There are 20 (twenty) informants interviewed in this study both as carriers and adopters. The theory used as an analytical tool in this research is the Diffusion of Innovation Theory by Everett M. Rogers. **Findings:** The results obtained from this study are that 6 (six) factors influence the process of innovation diffusion SIPBang. **Conclusion:** The community needs to be more interested in accessing the application so that it affects the number of visitors. Strategies are needed in spreading innovation by continuing to be active in spreading innovation by maximizing the quality of the application and speed in handling problems and creating interesting content.

Keywords: Innovation Diffusion, SIPBang, Community Participation, Regional Development.

INTRODUCTION

Current technological developments have a major influence on human life. Technology, which, at its creation, played a role as a human assistant in living life, has now turned into a human need (Bostrom, 2020). The need for transactions, social activities, and information is all obtained through technology. Humans enjoy the benefits of technology for each individual and the public interest (Wasko & Faraj, 2000). Even in running the bureaucracy, the government needs technological assistance.

The government uses technology to interact with the community, provide services in an efficient manner online, and provide information via a platform that has been provided both within the scope of the central and regional government. Information is very important for national security (Dempsey & Flint, 2003). Every Indonesian citizen has the same right to obtain information by the Law of the Republic of Indonesia Number 14 of 2008 concerning Public Information Disclosure. Information openness to the public is a feature of a democratic country like Indonesia to realize a well-organized state. The existence of public openness can also help the community in monitoring government performance (Bertot, Jaeger, & Grimes, 2010). Disclosure of information related to the implementation of development as a form of transparency so that development can be carried out effectively is a crucial issue.

In this era of disruption, the government must be able to adapt to changes that occur due to innovations that continue to develop so that they remain relevant to the changing times. Through a Government-Based System Electronic or abbreviated as SPBE, the government has changed the paradigm of services that were originally done manually and now can be done electronically. The Brebes district government established the Development Administration Information System or SIAPbang application as an innovation expected to disseminate information as widely as possible. In conveying information, effective communication is needed. Communication is an important element in the dissemination of innovation. Communication is the process of conveying messages by the communicator to the communicant through certain channels, both directly and indirectly, to impact the message recipient (Purwatiningsih & Dahlan, 2015).

1.1 Gap Issues Captured (Research GAP)

SIAPBang as an information medium has not been maximal in disseminating information. Researchers found deficiencies in the SIAPBang application as an information service, such as data displayed in the application only for 2021 – now, no data is displayed in previous years because SIAPBang is a new application. The application is not connected to social media even though access to social media has been shown. The importance of disseminating innovation through communication channels such as mass media, which can be in the form of social media, is necessary, considering that most Indonesians interact more frequently with and access social media accounts than public service applications in the government. This application is also not widely known by the public, this can be seen from views on the YouTube SETDA Development Administration Section at the time of launching the application, and the number of application visitors was still small compared to the population in Brebes.

It is known from the 2020 population census that the population of Brebes reached 1.98 million people and ranked first with the largest population in Central Java, while from July to September 2022, the number of visitors to the SIAPBang application was 9,974. Compared to the total population of Brebes, the number of application visitors is still relatively small. Dissemination of innovation through communication channels is necessary because it will impact the change due to innovation. The spread of this innovation is done in the most attractive way possible to attract public attention to the use of the application by utilizing medium media trends in the environment. To increase public interest in the SIAPBang application. Update the latest version of the application shows that the construction site feature has been removed. The government needs even more interesting actions in disseminating the SIAPBang application innovation.

1.2 Previous Research

This research was inspired by several previous studies using the Diffusion of Innovation theory—(Susanti, Palupi, & Hamidah, 2022) "Electronic Transaction Innovation Communication through ProgramsSmart Card in Pekanbaru City. The innovation diffusion process is carried out by utilizing mass communication channels such as newspapers, magazines, radio, television, the internet in the form of the Pemko Pekanbaru website, social media, and interpersonal. The planning process began in 2016, and the application was launched in 2017. From 2018 until now, the application

continues to be used. The social system involves the BNI bank as the card issuer, the Ministry of Communication and Informatics as the agency that carries out the innovation, Disdukcapil as the data provider, and the public as the users of the innovation. (Fajar & Sakir, 2022), entitled "Diffusion of Bureaucratic Organizational Innovation Case Study: Sivika Application-Based Employee Performance Appraisal System (Performance Visum Information System) at BKKBN'' the results of this research are the need for policy in the innovation diffusion process. Zukrufi Syasdawita, Rizqi Bachtiar (2020), with the title "Diffusion of Complaint Application Innovations Online APEKESAH Community of Batam City in 2020 (Study at the Batam City Communication and Informatics Service)". The results obtained are differences in the period, the type of social members that exist among the people of Batam City, and the use of mass media and interpersonal as a communication service in diffusion (Owners, 2022).

1.3. Statement of Scientific Novelty

The author conducted a different study that had yet to be carried out by previous research, where this study obtained new findings about the factors that influence the innovation diffusion process.

1.4. Objective

This study aims to obtain an overview of the innovation diffusion process and the factors that influence the diffusion of innovations.

METHOD

This research was conducted using a qualitative method with a descriptive approach. Descriptive research will explain the actual state of the object under study (Creswell, 2016). The research was carried out directly by collecting data from interviews, observations, field data, documentation, and other documents. In collecting qualitative data, the authors conducted in-depth interviews with 13 informants consisting of the Head of the Regional Secretariat for Development Administration and operators, Regional Apparatuses who adopted the SIAPBang application, and the community (in this case the community as the object of research as many as 7 people). Output research in the form of strategies for disseminating innovation by conducting a SWOT analysis and then evaluating it using the Litmus Test. The theory used in this

research is the Diffusion of Innovation Theory by Everett M. Rogers.

RESULTS AND DISCUSSION

The author analyzes how the Development Administration Section carries out the SIAPBang application innovation diffusion process using the Innovation Diffusion Theory by Everett M. Rogers. The discussion can be seen in the following subchapter.

3.1 Diffusion of SIAPBang Application Innovations

Innovation

Considering the five dimensions of innovation in (De Vries, Bekkers, & Tummers, 2016), namely relative advantage, suitability, complexity, possibility to try, and ease of observation, SIAPBang can already be categorized as an innovation. SIAPBang is one of the government's efforts to facilitate reporting development data. The data sent by the Regional Apparatus is also displayed on the application so that the community can participate in monitoring developments in Brebes. SIAPBang is the only application that displays development data, making SIAPBang different from other innovations (Asyari, 2015). The SIAPBang display is made as easy as possible so that Regional Devices can easily adopt the application. SIAPBang has benefits that the Development Administration Section can directly feel. These benefits include no need to re-enter data because the data will automatically be stored in the system, reducing paper use, and data reporting can be done anytime and anywhere (Bharosa et al., 2013).

Communication Channel

The Development Administration Section has done many ways in the dissemination of innovations (Borrego, Froyd, & Hall, 2010). Two media are used. The first is interpersonal media by socializing Regional Devices as Adopters and the community. The second is through mass media, namely, social media such as Facebook, Instagram, and Youtube, and the dissemination is done via radio (Adiyono, Rahmat, & Anindita, 2021). Even though they have few followers on the Development Administration Section's social media, they still try to spread innovation. As an indicator of communication channels, mass media is not very effective in spreading innovation.

Table 1. Data on Implementation of SIAPBang Dissemination through Mass Media

No	Media Mass	post	followers
1	Youtube	16	51
2	Instagram	87	306
3	Facebook	27	51
4	Radio	1	10

Source: Development Administration Section, 2023

Time

Adjustment to the use of the SIAPBang application is relatively fast, which is influenced by the application being easy to use, so it takes little time for Adopters to adopt it. The SIAPBang application was used by 75 (seventy-five) Regional Government Agencies as Adopters and was visited by 9,974 visitors.

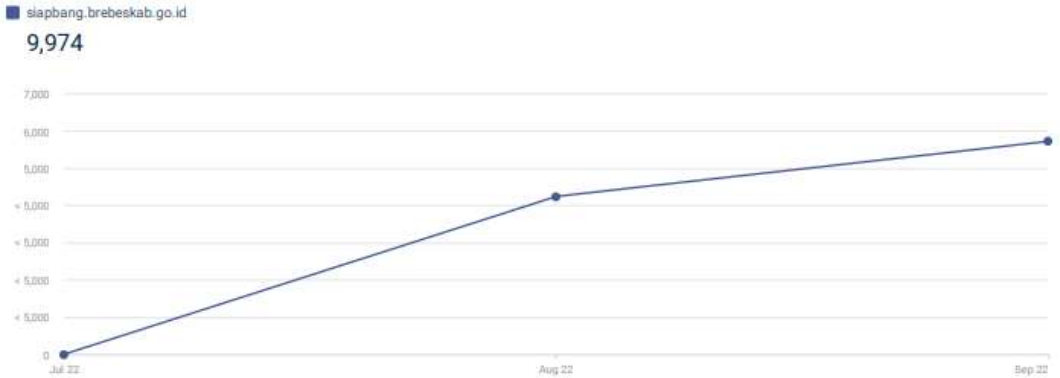

Figure 1. Data on the Number of SIAPBang Visitors July - September 2022

Source: https://www.similarweb.com/

Social System

The Development Administration Section carries out the deployment of the SIAPBang innovation without involving outsiders. Delivering innovation during the diffusion process is carried out by considering the norms that apply in society. The Development Administration Section operators initiated the idea of creating SIAPBang by considering the speed of reporting time before the SIAPBang application was developed. The decision to adopt an application is made through deliberation between the Development Administration Section and the Adopter (Steyaert et al., 2007). The consequences of innovation in the social system are divided into two views. The first shows the enthusiasm of several regional apparatuses who adopted the application because of the ease of inputting development data. And secondly, it shows unwanted consequences because data is still being inputted via Excel.

3.2 Influential Factors in the Innovation Diffusion Process

Ease of Use of the Application

The ease of use of applications is an important factor in the diffusion of innovations. However, several models explore technology adoption, acceptance, and diffusion, but not all specifically address ease of use (Min, So, & Jeong, 2021). However, the diffusion of innovation frameworks can be adapted to include factors such as complexity and incompatibility, which can affect the ease of use of applications (Waring & Alexander, 2015).

An easy-to-use app provides value for the user, especially if the app is useful. SIAPBang is a website, so it's easy to develop and can be used without installing an application. SIAPBang visitors can also easily access the information provided. The service in the form of a website is light to use and does not take up space on the phone.

Application development carried out by the SIAPBang System Development Administration Department is designed to be as easy as possible so that Regional Devices that adopt the application can easily and quickly adapt to the new system. The views given to the system are kept simple and easy to understand. The convenience available at SIAPBang affects the level of application adoption because innovations that are easily adopted are more likely to be accepted.

The following was conveyed by the Development Administration Section Operator, Mr. Deden as follows,

"The SIAPBang application is intentionally made simple so that users and visitors can operate it more easily. SIAPBang is built to make it easier to report development data. If it is made complicated, adopters will have difficulty adapting to the new system." (In-depth in-person interview on January 11, 2023, at the Brebes Regency Integrated Government Office).

The results of the interviews explained that SIAPBang was designed to facilitate the performance of regional apparatuses in reporting development data. So this application is made simple and easy to use. The convenience provided by SIAPBang aims to enable adopters to adapt easily and quickly.

The Activeness of the Development Administration Section in Dissemination

The Development Administration Division schedules regular outreach to Adopters and the community once every half year, which aims to make it easier for Adopters to understand the new system and for the public to find out more about what SIAPBang is. The socialization carried out to Adopters was

attended by 75 (seventy-five) Regional Apparatuses and was coupled with development evaluation reports. Meanwhile, village officials and community representatives attended the socialization carried out to the community.

Researchers interviewed key informant 1, Ms. Anna Dwi Rahayuning Rizky, Head of the Development Administration Section of the Regional Secretariat, regarding the SIAPBang application's deployment.

"The Development Administration Section has conducted outreach to the public and Regional Apparatuses who have adopted the application, and innovation socialization is also carried out through social media platforms, be it Facebook, Instagram, or YouTube. The Development Administration Section has also introduced SIAPBang through Brebes public relations radio." (In-depth in-person interview on January 11, 2023, at the Brebes Regency Integrated Government Office).

The researcher concludes that the Development Administration Section has actively disseminated innovations (Powell, 1995). Socialization is done not only in one way but in several ways. These methods include outreach and socialization through social media and also through radio.

Response Provided by Development Administration Section

The Development Administration Section as an application maker or opinion leader continues to train Adopters if they find Adopters who need help understanding innovation (Gallivan, 2001). This is usually done if the SIAPBang operator on the Regional Device is replaced. Suppose the Adopter receives a problem. In that case, the Development Administration Section will immediately handle the problem through the WA group, which has been created as a forum if there are questions from the Adopter. The reduction in the use of paperless has also been felt since the change in the reporting system (Sultan et al., 2014).

The researcher conducted interviews with Mr. Reza Nalendra as the SIAPBang Operator at BPKAD, Mr. Novel SIAPBang Operator at Dindikpora, Ms. Eva as the SIAPBang Operator at the DPU, and Mrs. Ela as the SIAPBang Operator at the Health Service regarding the response from the Development Administration Section if problems were found in the system. All answers from informants stated that,

"The Development Administration responded quickly when we asked about the application. Usually, if problems were found during input or new features were added to the application, it would be socialized, and you could also ask questions in the

WhatsApp group; the Development Administration Section responded quickly." (In-depth live interview January 13, 2023). The results of the interviews concluded that the Adm. Development Section. Responsive in responding to adopters so that adopters can easily operate the application. Development for Regional Devices is carried out by the Development Administration Section if there are additional new features and if problems are found in the system.

Lack of Public Interest in Government Owned Applications

The Ombudsman surveyed public interest in government websites or applications with the results that most people were more interested in coming to service centers than using government applications. One reason is that government apps are often criticized for incomplete features, poor performance, technical issues, and a lack of follow-up.

The lack of public interest in government apps is one thing that keeps happening. People are more interested in social media that presents interesting and creative content. There is also a notion that social media is more trusted than government apps. One of the things that makes people not interested in accessing government websites is that the displayed content needs to be more attractive. People usually look for entertainment that can be obtained through social media. Meanwhile, if you access the government website, the community needs feedback. This is the background to the need for more public interest in government websites or applications.

The researchers' interviews with people indicated they had never visited a government website. This is caused by the public's disinterest in the information conveyed through the platform. Unlike social media, they can access social media for hours.

The researchers concluded that people are more interested in social media than government apps. This is because what is presented on social media is more interesting. Even though social media is more desirable than government applications, governments can use social media as a medium for application deployment.

Lack of Followers on Social Media

Social media is now very loved by the community because the content presented on social media makes people interested in continuing to access it. In contrast to government websites or applications, this is affected because the content presented on

government websites or applications is not attractive. So, the Development Administration Section created social media through Facebook, Instagram, and YouTube to attract the public's interest in SIAPBang.

Even though social media was created to spread SIAPBang, SIAPBang visitors still need to be bigger. This is influenced by the social media followers of the Development Administration Section, which still need to be bigger, so it is possible that socialization carried out through social media is not conveyed to the public. This can be seen from the number of followers on Facebook, only 51. Instagram, only 306, and YouTube account subscribers totaling 51.

This information shows that social media followers owned by the Development Administration Section are still very few. These multiple followers can affect deployment targets that can only achieve a small scope—the need to create interesting content so people are interested in accessing SIAPBang.

System Error

SIAPBang is an application operated by the Development Administration Section and has a server in the Brebes district, Diskominfotik. During the research, the Diskominfotik server experienced an error that caused application maintenance. This makes the app inaccessible to carriers, adopters, and the public. As long as the application improves, data reporting will be rearranged as before SIAPBang. Errors in old applications must be calculated for application developers. A solution in the form of a quick system fix is certainly needed so that development data reporting continues.

This was conveyed by the Development Administration Section Operator, Mr. Deden, as follows,

"Currently, the system is undergoing repairs, and this is because the server is down at Diskominfotik. The system will recover soon, and periodic maintenance will be carried out. The stored data will not be lost, but development data reporting will be done first as long as the system is undergoing repairs." (In-depth interview January 11, 2023).

The results of the interviews can be concluded that the application is currently making improvements so that data input is done manually. Errors in the system will be corrected immediately so that input can be done automatically. This is also so that the information in SIAPBang can be accessed again by the public.

CONCLUSION

Activeness in spreading innovation and providing interesting content will impact the number of application visitors in the future. This is one of the goals of SIAPBang as a tool for the community in monitoring development data. If the community already knows about SIAPBang, one of these goals can be realized. Activeness in application deployment must also pay attention to what makes the target application users feel interested in using the application. Creating trending content among the public can be an effective solution for spreading innovation.

Research Limitations

This study has a major limitation, namely the scope of the research location, which is limited to the Brebes Regency Government environment as research location.

Future Directions of Research (future work)

The author realizes that the research findings are still preliminary. Therefore the authors suggest that further research can be carried out related to the use of appropriate strategies in the innovation diffusion process in more depth at the Development Administration Section of the Regional Secretariat of Brebes Regency.

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