

## THE ROLE OF TELECENTRES IN PROVIDING INTERNET SERVICES FOR TEACHERS IN RURAL AREAS

Febriany

*Program Studi Komunikasi Penyiaran Islam, Institut Agama Islam Nahdlatul Ulama  
Kebumen, Indonesia*

*Email: [Febriany272@gmail.com](mailto:Febriany272@gmail.com)*

**Abstract.** *The gap between urban and rural areas still occurs in Indonesia. There are still numerous remote and underdeveloped areas that still require special attention from the government. The gap does not only take place in terms of knowledge but also in facilities and infrastructure in accessing the technology. Pandauke Village is a remote village, not only in terms of geographically but also demographically. PLIK is a form of telecenters which is an innovation expected to reduce the gap. The role of teachers in remote village is quite important that they are demanded to keep improving their professionalism. This research is aimed to view the attributes of innovation in PLIK, in terms of teacher opinions in Pandauke Village. The present research employed qualitative method with descriptive analysis presentation. The results of this research show that 5 innovations, namely Relative Advantage, Compatibility, Complexity, Trialability and Observability are also considered important by teachers to adopt an innovation, in this respect is PLIK located in Pandauke Village.*

**Keywords:** *Telecentre, Teachers, Rural Areas*

**Abstrak.** Kesenjangan antara perkotaan dan pedesaan masih terjadi di Indonesia. Masih banyak daerah terpencil dan tertinggal yang masih memerlukan perhatian khusus dari pemerintah. Kesenjangan tersebut tidak hanya terjadi pada pengetahuan, namun juga pada sarana dan prasarana dalam mengakses teknologi. Desa Pandauke merupakan desa yang terpencil, tidak hanya dari segi geografis tetapi juga demografi. PLIK merupakan salah satu bentuk telecenter yang merupakan inovasi yang diharapkan dapat mengurangi kesenjangan. Peran guru di desa terpencil cukup penting sehingga dituntut untuk terus meningkatkan profesionalismenya. Penelitian ini bertujuan untuk melihat atribut inovasi dalam PLIK ditinjau dari pendapat guru di Desa Pandauke. Penelitian ini menggunakan metode kualitatif dengan penyajian deskriptif analisis. Hasil penelitian menunjukkan bahwa 5 inovasi yaitu Relative Advantage, Compatibility, Complexity, Trialability dan Observability juga dianggap penting oleh guru untuk mengadopsi suatu inovasi, dalam hal ini adalah PLIK yang berlokasi di Desa Pandauke.

**Kata Kunci:** *Telecenter, Guru, Daerah Terpencil*

### Introduction

In 2015, 122 regions were set as underdeveloped regions by the government. This determination is contained in Presidential Regulation Number 131 of 2015 on the Determination of Underdeveloped Regions in 2015-2019. One of those regions is North Morowali Regency, located in Central Sulawesi Province. A region is set as underdeveloped based on the criteria of the community economy, human resources,

facilities and infrastructure, fiscal capacity of the region, accessibility, and regional characteristics. The definition of underdeveloped regions is different from underdeveloped villages. Such definition later becomes a paradox when many underdeveloped villages apparently are located in fairly developed regions. North Morowali Regency is an expansion product of Morowali Regency in 2013. The existing districts are still categorized underdeveloped or remote.

One remote village in North Morowali Regency is Pandauke Village located in Mamosalato District. The geographically remote region makes the teachers feel the barriers in the use of Information Technology and in means of transport. The very common barriers in remote villages are in terms of communication and transportation. It becomes an important issue as the location of Pandauke Village is located far away from the capital of Kolonodale Regency, which can be reached for more than 8 hours of travel; thereby, the round-trip travel time that can take 16 hours must be quite exhausting and costly.

To solve such problem, the government creates various programs through Universal Service Obligation (USO). The Ministry of Communications and Information Technology has issued a number of innovative programs, one of which is the program District Internet Service Center (PLIK). The presence of PLIK in Pandauke Village drives the residents to flock the place. Teachers are the most common users in this area, as quoted from an interview with the administrator of Mamosalato PLIK: "The most common users of PLIK here are the teachers, especially when it is the time to access Padamu Negeri, this room will be specially used by those teachers". Roman describes that in order to see the adoption of an innovation, in this case is Telecenter; there are three important aspects that can be seen, namely the Attributes of Innovation, Process of Communication and Consequence of Innovation. However, this research will only observe the aspect of the Perceived Attributes of Innovation. This aspect will view Attributes of Innovation as presented by Rogers, i.e. Relative Advantage, Compatibility, Complexity, Trialability and Observability.

The Diffusion of Innovation Theory is a theory used to discuss research on an innovation or new idea communicated to a certain community group. There are four elements which become an assumption of this theory (Rogers, 2003: 10-24): (1) innovation, (2) communication (3) time and (4) social system.

In this research, the diffusion of innovation theory assists to form a perception or

view of the teachers on PLIK in Pandauke Village. The perception of the teachers will be monitored through five attributes of innovation presented by Rogers; Relative Advantage, Compatibility, Complexity, Trialability and Compatibility. As also appointed by Roman (2003); to view the adoption process of innovation on Telecenter can be explained by Rogers' five attributes of innovation.

### **Research methods**

The approach employed in this research was descriptive qualitative. What became the locus of this research was District Internet Service Center (PLIK) located in Pandauke Village in 2011-2014. Furthermore, what became the focus of this research was the adoption of innovations done by the teachers in remote villages to PLIK at Pandauke Village. Informants in this research were teachers actively using PLIK in Pandauke Village and also lived in Pandauke Village. The informants were consisted of 6 teachers, civil servants and administrators of Pandauke PLIK.

### **Research Findings and Discussion**

#### **Attributes of Innovation in PLIK**

##### **a. Relative Advantage**

The most important attribute of innovation according to informants in PLIK is the relative advantage. The advantages perceived are in the field of economy, saving time and efforts, social prestige in satisfaction and comfort.

##### **1. Economic Advantage**

The economic benefits can reduce the cost incurred in accessing the internet or other PLIK facilities, such as transportation costs.

##### **2. Saving Time and Efforts**

Furthermore, in terms of time and energy advantages, i.e. all informants claim that with the presence of PLIK in their village, they no longer need to get access in distant places with lengthy travel time because PLIK is close to their homes.

##### **3. Social Prestige**

The social prestige here is similar to the concept proposed by Moore and Benbasat

(1991), in which the use of innovation will increase the individual status in their social system. Pandauke Village is one of the remote villages in North Morowali District. The residents only have very limited access to information; hence people who have deeper knowledge or skills in the application of innovations or new technologies will have a higher prestige in the social system.

#### 4. Comfort

In terms of convenience, it can be seen from accessibility and flexibility advantages perceived by informants. Accessibility here is when Pandauke Village did not have such facilities, but finally, program such as PLIK has made people who adopted it become able to access to technology, for instance the internet. Therefore, to obtain the desired information, they will no longer encounter difficulties. For example, informants who have no ICT facilities at home can finally use the facility at the Telecenter / PLIK in their village.

#### 5. Satisfaction

In terms of satisfaction, the informants can improve their computer and internet skills. In addition, there is also satisfaction with the service operators in PLIK. Bergeron, Rivard and De Serre (1990) state several aspects of telecenters roles are thought to affect the user satisfaction. User satisfaction shows a positive value on rapid response in requests for help. One of the findings also finds that users ask for help to the operator and respond well, and the operators also have fairly good ability in the application of computer and internet.

### **b. Compatibility**

Another important attribute in the diffusion of innovation is Compatibility, i.e. the degree to which the innovation is deemed consistent with prevailing values, past experiences, and needs of adopters.

#### 1. Compatibility and Prevailing Values

In the present research, the informant state that PLIK as one of telecenters in Pandauke Village is already in conformity with the values of the culture, the needs

and past experiences of the informants. It is because the informants here have recognized computers beforehand and some of them simply know the benefits of computers and the internet but have never used them. Fortunately, several villages in Mamosalato, including Pandauke Village, have residents who are quite open to new innovations.

2. Compatibility with Past Experience

The majority of the informants have been already familiar with computers before adopting such PLIK. There are also informants who have not been familiar with computers at all despite their efforts to study it. In addition, in terms of Compatibility with the needs; not only that they learn to use the Internet and computers, but they are also finally able to connect with friends through social media.

3. Compatibility with Disabilities

The presence of PLIK is in accordance with the needs of teachers as informants in this research because PLIK provides computers and the internet to improve their ICT ability, and also teacher professional needs related to certification as teacher database has only begun to be applied online.

**c. Complexity**

The complexity perceived by informants is their unfamiliarity with computer program. Some of them have yet to know how to use the computer and internet. Several informants find difficulties in using PLIK facility, but they eventually learn to overcome the problems found. Gallakota and Doshi (2011) illustrate that the complexity of an innovation can lead to a decrease in adoption. Users of telecenters in rural areas in developing countries do not have computer skills, and there is also a common perception that computers are difficult to use.

**d. Trialability**

Regarding Trialability, it refers to the extent to which an innovation can be tried

before adoption. The informants have the opportunity to try out PLIK, both when they are in training and when implementing it. Upon trial, they find the fact that using the PLIK facility not very hard and they finally decided to adopt it. As proposed by Rogers that Trialability is a degree to which PLIK as innovation can be tried out within a certain limit. Nevertheless, in this research, this attribute is not highly strong as proven in trial by several informants who did not attend the training held previously but still adopted the PLIK.

**e. Observability**

The last attribute of innovation is observability, i.e. the extent to which the visible innovation results are observed or communicated by others. The training held by the administrators of PLIK, and is attended by informants who ultimately decide to try to use the PLIK facility which is ultimately communicated to their peers. Rogers (2003) demonstrates that one of the factors affecting informant's decision to adopt an innovation, in this regards is the teachers, is their peers. Thereby, attribute of observability is closely related to trialability. One informant explains that the decision to adopt PLIK is from seeing their peers.

**The Level of Adopter in Teachers in Pandauke Village**

The research results also find that there are differences in characters between the informants as the adopters of innovation. The informants here are divided into two groups: the first is Early Adopter, and the second is Late Majority. Early Adopter is a close part to the social system. They will adopt the innovation depends on the particular situation that they deem important (Rogers, 2003: 283). The male informants fall into this category as they have previously received information from their peers and are also motivated to try. Geoghegan (1998) says Early Adapter is risk takers, more willing to experiment, generally independent, and is interested in the technology itself. As for those included in Late Majority are female, where they adopt after the majority of their social system members begin to adopt, and they are even subjected to some kind of pressure

beforehand. The differences also occur because skill factor and their previous experience.

### **Conclusions**

The research results also indicate that there are differences between the categories of informants as adopters of innovation. Informants here are divided into two groups: the first is the Early Adopter and the second is Late Majority. Early Adopter is dominated by male informants while Late Majority is dominated by female informants.

The attribute of innovation proposed by Rogers is Relative Advantage, in which the innovation perceived to give certain advantages to users is considered to have considerable role in the adoption of PLIK Innovation conducted by the teachers. The first perceived advantage is in the field of economy. The presence of PLIK in Pandauke Village means that they do not have to pay in large sum just to access the internet or computers. The next advantage is saving time and efforts. As described previously, whenever they are about to hit the town, they must use mode of transport, such as boats or ferry. And it takes nearly 10 hours just to reach the district capital, i.e. Kolonodale. Subsequently, the third advantage is the social prestige. Social Prestige is considered important as everyone certainly wants to be seen better than others.

The next advantage again is comfort. If associated with comfort, the informants in average mention that another reason to finally adopt PLIK is good operator services, flexibility and accessibility. And the last advantage is seen from satisfaction. From the description of user informants or adopters of PLIK, they feel satisfied on the presence of PLIK and the facilities offered. Most of the reasons for satisfaction are related to advantages of Telecenter which provides services at an affordable cost, develops their skills, and Telecenter makes them.....

One of the crucial factors in the fast or slow adoption of innovation is the Compatibility with the needs, and whether or not an innovation is compatible for the needs of prospective adopters. The informants claim it to be compatible as they highly need such ICT facilities and they have the desire to improve their skills and knowledge.

Trialability in this research is viewed from experiences through training conducted by the administrators and also the experience of using the innovation itself.

Trialability also has an important in this research because it can reduce the uncertainty perceived by informants regarding PLIK in their village. The last attribute is observability. Observability in this research can be observed by how informants view other users who use an innovation and see the results of the innovations used by the people.

Achieving the objectives expected from internet service aid program in the district requires the cooperation among the Ministry of Communications and Information Technology, local Department of Communication and Information, local government, administrator with local government as well as the community. Therefore, the program is able run in accordance with the goals of the program implementation.

### **Bibliography**

- Bergeron, F., Rivard, S. and De Serre, L., Investigating the Support Role of the Information Centre, MIS Quarterly, September 1990.
- G. Moore dan I. Benbasat. (1991). "Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation". Information Systems Research, vol. 2, pp.192-222
- Geoghegan, W.H. 1998. Instructional Technology and The Mainstream : The Risks of Success. In D.G. Oblinger & S.C. Rush (Eds) The Future Compatible Campus (pp. 131-150). Anker Publishing Company, MA: Bolton.
- Prestridge S.J. 2012. The beliefs behind the teacher that influences their ICT practices. Computers & Education Journal, 58(1), 449-458.
- Rogers.E.M. 2003. Diffusion of Innovations (5th edition). New York: The Free. Press.
- Roman, Raul. 2004. Diffusion of Innovation as a Theoretical Framework for Telecenters. The Massachusetts Institute of Technologies and International Development. Volume 1, number 2. 53-55