



Digitalization of Local Culture to Build Smart Villages

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Abstract. Sukorejo Village is a cultural-based tourism village since local culture is still sustainable today, such as flat leather shadow puppet, *Pencak Dor*, *Sandur*, *Terbang Banchan*, *Njara'i Manten*, etc. Even though it is known as a cultural tourism village, it turns out that the people of Sukorejo village have not been able to optimize the information technology usage to the maximum, one of which is about cultural publications. In this regard, the researcher desires to optimize the technology used to publicize the local culture of Sukorejo Village through the digitalization process to build it into a smart village. Thus, this article aimed to explain how to build a smart village through digitalization: topic of local arts and culture. In this study, the method used was descriptive qualitative with a triangulation technique that compares the interview results and the research object. The data were analyzed qualitatively with the researcher as the key instrument. The results showed that the digitalization process can support the development of smart villages in Sukorejo Village, Parengan, Tuban. Viewed from the local culture perspective, the digitalization patroness is a reference for forming a smart community, where smart villages consist of smart government, smart communities, and smart environments.

Keywords: Local culture · Smart village · Digitalization · Sukorejo village

1 Introduction

Technology has an important role, especially when entering the era of society 5.0, because technology facilitates daily activities, one of which is to find information to interact online [1]. Seeing the era of society 5.0, which is the development of the 4.0 industrial revolution era and known as the era of human role degradation into human era as a source of innovation and will be the center by remaining based on digital technology. The community must have started to be literate towards literacy through skills, arithmetic, science, etc. [2]. The community not only master science and information technology but must also be able to develop technology that is a real challenge in today's and future times, one of which is the internet [3]. With this development, the term digitization is circulating among the public. The digitalization era is a development of the industrial revolution era.

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Digitization is the process of transitioning analog information media to digital media. The sense that print media is converted into electronic media form through a scanning process to create electronic pages that are suitable for computer storage, retrieval, and transmission [4]. So, digitization is the process of converting data from analog to digital form for processing through a computer. Through digitization, people are used to interacting through digital media [5].

One of the good forms of digitalization in the local arts and culture sector is that the community is able to integrate or implement technology into their arts and culture. One of the villages targeted to digitize local culture is Sukorejo village, Parengan. Sukorejo village is famous for its cultural tourism since the arts and culture in that village are still maintained now even the Ministry of Tourism and Creative Economy has recognized Sukorejo village as a Cultural Tourism Village whose status is still developing. Many local cultures are still preserved and have human resources, which are the regeneration of cultural heritage to this day. Examples of preserved local cultures are the culture of *Tahlil Kubro*, Alms Earth, and *Manganan*. Some several arts and cultures are still developing in that village, including flat leather shadow puppet, flat wooden puppet, three-dimensional wooden puppet, *Pencak Dor*, *Sandur*, *Terbang Bancahan*, *Wiwit*, *Kaleman*, *Colok*, *Njara'i Manten*, *Sepasaran*, *Tingkepan (Mitoni)*, etc.

A local culture that lives in the midst of society often arises from the community's spiritual stimulation and local rituals, which are spiritually and materially very important for the social life of a village community [6]. Local culture has a very close relationship with the community in an environment with all the natural conditions in that environment. This activity is usually performed in various traditional village ceremonies, and village cleansing is carried out to honor the ancestral spirits as village guards. The ceremony's purpose is to believe that God Almighty will provide welfare to the people. Despite this belief, the village clean-up ceremonies result in a positive environmental impact [7].

The well-known culture in Sukorejo village is *Tahlil Kubro* which is a religious ritual activity by offering prayers to honor the ancestors, which is carried out at the beginning of the month of Ramadan. Another culture that still exists is the Earth Alms, an activity symbolizing gratitude for agricultural products in Sukorejo village. In addition, the *Manganan* culture is almost the same as the Earth Alms culture, but this ritual is usually carried out at the tomb with a large meal together, commonly called a feast.

The diverse culture of Sukorejo village is promising potential, but it is not accompanied by optimal technology used by the village community. Meanwhile, local culture that is still sustainable should be introduced to the general public so that everyone knows the existence of the culture in Sukorejo village. The implication of this event is optimizing the use of digital media as a forum or branding for the local culture of Sukorejo village since it is very unfortunate if it is not well-known by the wider community [8]. Therefore, it is necessary to expand publications on the existing culture in Sukorejo village. One way to do this is by utilizing digital technology through digitization. It aims to show the existence of a culture that is still sustainable in Sukorejo village.

The digitalization process supports the smart village program where the community can optimally utilize technology, and almost half of the village population can at least operate the latest technology. In the context of smart villages, the use of information technology can provide improved services to the community; the village government

will be able to carry out government functions effectively and transparently to the community [9]. In addition, the use of digital technology can improve the performance and productivity of the village government. Village development is an integral part of implementing village government functions [10]. However, based on the observation and interview results, the people of Sukorejo village who can use information technology optimally are on average 18 to 30 years old. It raises a problem, namely the existence of a gap or gap in the use of information technology in the community.

Therefore, several problems can be formulated into three: (1) What is the concept of digitizing local culture in Sukorejo village? (2) What are the smart village indicators? (3) What is the initial concept of smart village development through digitizing local culture? For this reason, this article aims to grow a smart village through digitizing local culture in Sukorejo village, Parengan, Tuban.

2 Methods

This study used a descriptive-qualitative approach. The descriptive method explained systematically, accurately, and factually about the concept of digitization for smart villages, indicators of smart villages in Sukorejo village through a local cultural perspective, and how to build smart villages through digitizing local culture in Sukorejo village, Parengan, Tuban. The data were collected through triangulation techniques by comparing the interview results and the research object. Then, the data was analyzed qualitatively with the researcher as the key instrument.

3 Results and Discussion

3.1 Concept of Digitizing Local Culture in Sukorejo Village

Digitization is the process of transitioning analog information media to digital media through a scanning process to create electronic pages [3]. Based on this understanding, it is necessary to have the concept of digitizing the local culture of Sukorejo village, from which initially it can only be enjoyed directly (without the support of electronic tools or media) to digital (by scanning/recording to create electronic pages such as the Websites, YouTube, Facebook, TikTok or other electronic pages) that allow village communities to access these electronic pages using electronic devices, such as smartphones, laptops or PCs [11].

In this article, the stage model of the innovation adoption process in organizations proposed by Rogers was used as a basic reference for building a smart village [12]. The model can be seen in the following chart (Fig. 1).

Based on the model, the innovation adoption process in organizations consists of five stages which are characterized by certain types of information-seeking behavior and decisions. The five stages are divided into two sub-processes, initiation and implementation, separated by a dotted line for adoption.

The first stage of the innovation adoption process in an organization is known as the initiation sub-process. In this sub-process, all information is collected, conceptualized, and planned to adopt an innovation that leads to the decisions that have been made.

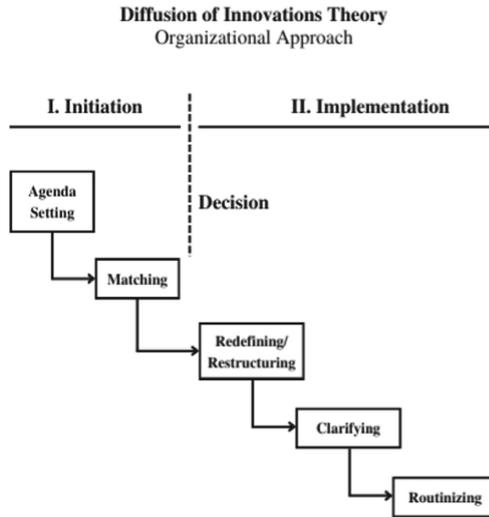


Fig. 1. The stages of the innovation adoption process in organizations *Source: Rogers in Mayasari [12]*

3.1.1 Agenda Setting

In the initiation sub-process in the first stage or agenda setting, leaders are required to define common organizational problems that can create a need for innovation and spark ideas to solve organizational problems. It can lead administrators to identify problems and create solutions, then organizational leaders can seek answers beyond institutional boundaries. To some extent, innovations can create demand according to their own needs.

3.1.2 Matching

Leaders match innovations with organizational problems to determine whether the organization's problems are to determine the suitability of their needs. The assessment is based on experience or direct observation of the innovation to be adopted and estimates its impact. When the matching stage is complete, the leader is required to decide on the possibility of experimenting with the innovation. The two stages in the initiation sub-process lead to the decision to adopt so that the next sub-process, namely implementation, must be carried out. In the implementation sub-process, all the events, actions, and decisions involved in the activity decide which innovation to start implementing.

3.1.3 Redefining/Restructuring

The implementation of an innovation is often different from the planning that was developed before adoption. So, adjustments must be made between the problem and the innovation right. Then, the change can be minimized. In some cases, there may be profound modifications to the organizational structure.

3.1.4 Clarifying

If innovation has been integrated into the organization's daily operations, in the sense that innovation has gradually become commonplace for members of the organization. The innovation eventually lost its novelty and became part of the organization's protocol.

3.1.5 Routinizing

Finally, there is the stage of routinizing or doing routines so that innovations have been well-defined and become part of the organizational infrastructure. Eventually, the innovation loses its novelty and is no longer recognized as a separate entity within the organization. It has just become part of the ongoing procedure of the day-to-day operation. The model above can be used as a basic reference to explain how the process of an organization deciding to digitize local culture so that the decision to adopt and implement it in the organization's daily routine.

Therefore, the concept of digitizing local culture in Sukorejo village is a change from technological stuttering to technological literacy, as evidenced by significant technological progress, especially regarding publishing cultural content in digital media. This digitization starts from the process of uploading content on social media, but as a whole for the residents of Sukorejo village because of clear evidence that the use of this technology is still not evenly distributed by the residents of Sukorejo village. People who initially did not understand how to use websites, other social media, or scans were first socialized on how to use them. From that habituation, the digitization process will be formed. Viewed from a cultural point of view, its existence maximizes cultural and artistic exposure that is being held via digital media.

3.2 Smart Village Indicators

Sukorejo village, as a village with much potential, has not been able to become a smart village since it has not maximized the use of technology. Therefore, researchers want to make Sukorejo village a smart village. In realizing Sukorejo village to be a smart village, it must meet several indicators, namely smart government, smart community, and smart environment [9]. As in the following chart, several things need to be considered in realizing a smart village (Fig. 2).

Government, community, and rural environment are elements that form smart relationships as a reference for smart villages that have different roles and functions. However, these three elements become integral part that influences each other, so that the application of the smart village must be based on the accommodation of the three elements, including the character, role, and function carried out by each element. Therefore, it is necessary to have awareness in the local community to make it happen.

Smart government, in this case, public service activities, takes advantage of technological advances. A real example in Sukorejo village is the existing website that can be used as a forum for public services. However, in daily life, it has not been appropriately used by residents. In addition, content about the culture in the village is still not well exposed, as evidenced by the website, which has not written and published much about the culture in Sukorejo village. Therefore, researchers want to realize the digitalization of culture by utilizing the website village.

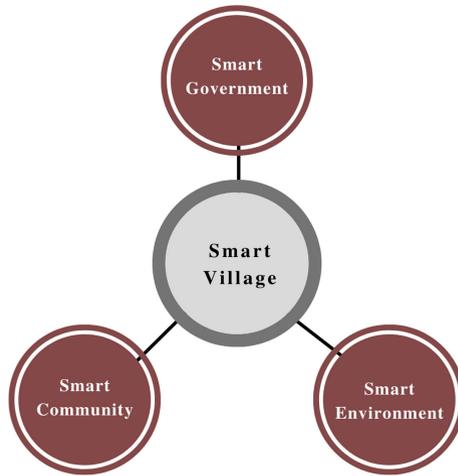


Fig. 2. The concept of the smart village *Source: Herdiana [9]*

Smart community where the community in the village plays a role as a supporter of community awareness in order to realize village development. The demographics of Sukorejo village, which 18–30-year-olds dominate as technology-literate residents, still have not spread full awareness to other residents about digitalization. It is evidenced by the not yet maximal use of village facilities to realize digitization. A real example is the village wifi facility which is not used properly to publish cultural content but is used more for playing online games. In addition, the limited quality of human resources makes the residents depend on only a few people who are technology literate but do not participate in learning the use of technology.

Smart environment, in this case, the village environment, will be the hallmark of a village, one of which is in the cultural context. Sukorejo village, as a cultural tourism village with much potential for arts and customs that are still upheld is included in this case. However, the process of digitizing culture so that the general public can know it is still not maximally carried out due to a lack of public awareness about the importance of branding in the existing local culture.

3.3 The Initial Concept of Smart Village Development Through Digitizing Local Culture

The concept of smart village development was carried out through the process of digitizing local culture in the village and utilizing social media as a means of digitizing [13]. The social media that are optimized for use include Instagram, Tiktok, and YouTube. Therefore, there is a smart community and smart government to support the success of a smart village through digitizing local culture. It is known that the role of the government, in this case, is to have a website official village. However, they have not been able to optimize the website regularly [14].

With the existing website, researchers will contribute in the form of providing education on how to digitize local cultures through fostering and empowering human resources

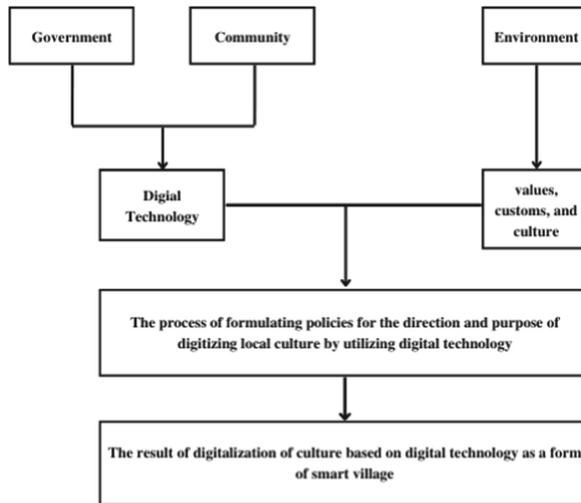


Fig. 3. The relationship between government, community, and environment to realize a smart village

in Sukorejo village. Researchers will form a smart community from existing human resources to realize smart villages regularly. The smart community created will produce an output in the form of local cultural content in Sukorejo village. Regularly, the villagers must be trained to use and operate gadgets or devices properly. Villagers who initially could not or did not have the knowledge to use gadgets and the internet became able and technologically literate through fostering how to digitize local culture. The contents uploaded on the website and social media contain elements of culture and the preservation of local culture in Sukorejo village.

The development of a smart village is shown not only to answer the current challenges of society 5.0 but also for the sustainability and welfare of future generations [15]. Concerning the digital technology used in rural communities, it is essential to prioritize rural environmental values. It is a commitment that digital technology can be in line with the preservation of traditional, cultural, social, and natural environmental values in rural areas to create a balance between the two. The understanding can be seen in Fig. 3.

The context of the use of digital technology is associated with traditional and cultural values that exist in the lives of rural communities aimed at strengthening and preserving traditional and cultural values so that they are sustainable and possible to be developed to suit the current context. In this way, the development of digital technology is in line with the preservation of traditional and cultural values and benefits the community. In the context of local culture, digital technology supports the community to utilize all digital devices as capital for sources of livelihood and other means of activity oriented to creating management that upholds the value of sustainability and balance [15].

This effort is intended so that the potential in Sukorejo village is properly explored. The community uses technology to support the management of local culture so that it remains sustainable. That way, the local culture in Sukorejo village will continue to be

maintained and can create new regeneration in the future. Based on this understanding, the smart village must always prioritize the harmonious relationship between the community and the government. Smart village in the context of the relationship between these two elements (community and government) is intended to maintain the local culture of Sukorejo village, as well as cultural digitization aimed at encouraging the development of smart villages. The output generated from the synergy between the government, community, and environment in the context of smart village development is the use of information technology by the community. It aims to encourage the preservation and development of a local culture that is balanced and sustainable to realize a smart village, in this context is Sukorejo Smart Village as well as a Cultural Tourism Village.

4 Conclusion

Digital technology no longer requires human or manual labor but tends towards an automatic operating system with a computerized system or a format that a computer can read. The process of switching from analog media to digital media is called digitization. With the process of transitioning analog media to digital media (digitalization), almost everything can be digitized, one of which is the local culture. Local culture in Indonesia is still preserved and embedded in people's lives to this day, one of which is in Sukorejo village, a Cultural Tourism Village, namely the local culture of *Tahlil Kubro*, Alms Earth, and *Manganan*. The existing local cultures of Sukorejo village can be digitized through various currently trending platforms, such as YouTube, Instagram, TikTok, Facebook, Twitter, and so on. Through these platforms, it can have a positive impact on the development and introduction of local culture, especially in Sukorejo village, to the wider community.

Besides having a nickname as a Cultural Tourism Village, Sukorejo village, Parenangan, Tuban has the potential to become a smart village if it has three main elements: smart government, smart community, and smart environment. The element of smart government in Sukorejo village has begun to form but needs guidance and development to maintain the consistency of the use of technology, so the element that researchers focus on is the smart community, by engaging the people of Sukorejo village through the digitalization of local culture. The digitization process starts with uploading content on social media. It is known and carried out thoroughly for Sukorejo village residents because of clear evidence that the use of this technology is still not evenly distributed among the age groups of Sukorejo village residents, where the dominance of technology-literate residents is only between the ages of 18–30 year. Therefore, in advance, it is necessary to socialize on how to use and optimize devices, such as scanning, maximizing content via social media, etc. Then from that habituation, the digitization process will be formed, which is comprehensive from this point of view. When viewed from a cultural point of view, its existence maximizes cultural and artistic exposure that is being held via digital media.

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