

PARTICULARITIES REGARDING THE ADOPTION OF THE SMART VILLAGE CONCEPT IN SADU COMMUNE, SIBIU COUNTY

IVAN VALENTIN-DUMITRU-IOAN¹, BĂLUȚĂ ACHIM DANIEL¹, GUSAN OVIDIU¹,
IAGĂRU RAREȘ*¹

¹*University of Agricultural Sciences and Veterinary Medicine Bucharest, 59 Marasti, District 1, 11464, Bucharest, Romania, Phone/Fax: 00 40 744 6474 10*

*Corresponding author's e-mail: raresiagaru@gmail.com

Abstract: *The paper presents the particularities of ensuring transparency at the level of local administration and the efficiency and digitization of the administrative process at the level of Sadu commune, Sibiu county. The basis of this activity is provided by the City Manager digital platform that facilitates the interaction between local public administration and citizens.*

Key words: *digitization, platform, smart*

INTRODUCTION

Rural areas are characterized by complexity and diversity [13]. At the same time, they present a series of particularities that give them identity and specificity, but also common elements, so that the process of planning their sustainable development is different both from one country to another and within smaller territorial units [4]. They are obliged to find the most suitable answers to the changes that characterize the rural life framework - demographic, climatic changes, and the increasingly intense presence of new technologies in agricultural, non-agricultural activities even in everyday life [2]. The solution consists of perceiving the rural territory as a space for the integration of all economic fields and promoting a new approach to development planning [4,5] by the specifics and needs of the community. The consolidation and perpetuation of the territorial specificity, respectively its development, is the responsibility of the communities permanently concerned with the identification of opportunities and their sustainable capitalization to obtain competitive cultural, social, and economic advantages. Endogenous resources are the basis of the territorial specificity of an area and underpin its development. According to the studies carried out by numerous researchers [9,15,16,], the process of economic growth is based on investments in human capital, and the implications of this process are local actors (organizations, institutions, etc.) and the following categories of resources: natural (land, water, climate, ecosystem, fauna, flora); human (knowledge and cognition, experience and expertise); materials (physical infrastructure, schools, hospitals, irrigation systems, etc.); economic (work, the goods market, property, food, prices, credit system, etc.); social (households, social institutions, ethnic organizations, leadership); cultural and spiritual (festivals, rituals, art, lifestyle, language). Any territory has several characteristics that give it individuality, specificity, and authenticity that must be developed and exploited sustainably, to keep them unaltered [6,14]. Territorial development is carried out taking into account territorial specificity and is influenced at a low level by exogenous factors (raw materials, materials) and at an intense level by endogenous factors (capital, human, social, accessibility, etc.). The interest of researchers in rural development is intense and attests to the favorability of combining exogenous and endogenous development models and the creation of a new model of neo-endogenous rural development [3]. It specifies that rural development is "locally rooted but outward-looking and characterized by dynamic interactions between local areas and their wider environments". The present is marked by the development of information and communication technology, concerning the dynamic technological progress registered in many countries and commonly known as the fourth industrial revolution. This forces

communities, including rural ones, to access knowledge, use knowledge, create knowledge, respectively promote. Knowledge, innovation, and entrepreneurship are becoming relevant components for sustainable rural development [12,18]. In connection with those indicated, new concepts such as smart development, smart village, and smart city have appeared. If initially each concept was subordinated to technologies, currently researchers signal that technologies should play the role of applicable tools only if they respond to the real needs of the inhabitants. This understanding of smart development is the essence of the smart village concept, which has emerged in recent scientific and political debates on rural development [1]. The basic elements of the smart village concept are high flexibility and geographical and territorial sensitivity [11]. The process of adopting the concept of "Smart Village" is complex and dynamic, being completed in several stages [10].

MATERIALS AND METHODS

Considering the potential of the resources of the Sadu commune, Sibiu county, and the power of its development concept in conjunction with the quality of life of the villagers, the purpose of this article is to record the achievements, the implementation of the initiatives, and the specifics of the Sadu-Smart Village strategy. For this we used quantitative and qualitative methods for which they were integrated in the case study methodology because it has proven in numerous researches of usefulness and relevance [7,8]. The motivation of the choice consisted in the fact that it aims at a complete and in-depth investigation of a subject and the context in which it takes place [17].

RESEARCH RESULTS

In order to ensure transparency at the level of local administration and the efficiency and digitization of the administrative process, Sadu commune has implemented the City Manager digital platform. This facilitates the interaction between the local public administration and the citizens, transposes the communication with the citizens into the online environment, and the citizens can simply and quickly report a problem in the public space, they can pay the fees and taxes online, directly on the website of the institution public. The orientation towards the Smart-Village concept is based on the analyzes carried out for the purpose of developing the strategic document from which the high openness of the citizens and the public administration to the digital sector emerged. Argument in this sense are the measures already implemented as well as the interest given to the development of the concept of Smart Village - Smart Village in perspective. In this sense, in January 2022 the "SADU-SMART Village" Strategy was completed, the purpose of which is defined by the improvement of the strategic planning process and the implementation of measures to simplify administrative procedures for citizens with the support of technology. Specifically, some of the bureaucratic procedures were eliminated and the process was automated. Thus, an increase in the efficiency of civil servants was achieved, simplifying their daily work. The implemented platform also allows the online organization of meetings and audiences in the safest way. All records and notifications are saved in one place, the program is easy to use, and accessible anytime and from anywhere there is an internet connection.

The implementation of the platform led to citizens obtaining the following facilities:

- online platform for requests and complaints;
- citizens can request certificates, tax certificates, etc., online on the institution's website www.sadu.ro, and check the status of the documents;

- investment map - allows a simple and transparent visualization of the investments made;
- payment of taxes, fees, and fines - taxpayers can pay taxes and fees online on the Sadu City Hall website. Also, the payment can be made by bank transfer from any bank, both for natural and legal persons, in the accounts of the Town Hall of Sadu commune, but also at the institution's counter;
- online hearings and appointments on the institution's website www.sadu.ro, in the special section called "online appointments".

Framing the projects implemented by Sadu commune, on the 6 Smart Village verticals, we notice the fact that important steps have been taken on what it means to be a smart community, but there are certainly still many more investments to be made in this field (fig. 1).

SMART GOUVERNANCE	<ul style="list-style-type: none"> • the CityManager software solution • updating and improving the website • geospatial data system and integration into GIS solution
SMART LIVING	video surveillance system
SMART MOBILITY	projects in the future
SMART PEOPLE	<ul style="list-style-type: none"> • schools with digital infrastructure • tablets for students and free WI FI
SMART ECONOMY	projects in the future
SMART ECONOMY	<ul style="list-style-type: none"> • selective collection • intelligent public lighting with

Figure 1. Achievements towards a smart community

Source: Sadu SMART Village, 2022

The solutions and measures proposed within the "SADU-SMART Village" strategy are promoted and integrated in the local development strategy of the municipality for the 2030 horizon, in the following sections.

CONCLUSIONS

The implemented digital solutions allow the public administration permanent and fast access to all internal data.

The degree of information and transparency has increased by modernizing the website.

Citizens no longer have to go to the counters to pay fees, taxes, fines or to request/pick up documents, but can do it online on the City Hall website.

The developed strategy proposes a series of measures and investments that can be carried out with the support of technology, in order to develop the concept of a Smart Village, an oriented village made up of residents, who take the initiative to apply practical solutions to the challenges they face and to take advantage of new opportunities using technology to create a safer environment and a higher standard of living.

Tradition and innovation, in equal weight, are coordinates that are the basis of the development of rural communities and must be calibrated as a unitary concept with the help of digital technologies, telecommunications and research, with the aim of optimizing public services for the benefit of the community and increasing the comfort level of the Romanian village, with results in discouraging the phenomenon of depopulation of rural areas.

REFERENCES

- [1]. **BOKUN K., NAZARKO J.**, 2023, Smart villages concept - A bibliometric analysis and state-of-the-art literature review, *Progress in Planning*, 100765
- [2]. **GARCILAZO J. E.**, 2021, Megatrends and implications for rural development policy, In A. Dumont, & D. P. Davis (Eds.), *Investing in rural prosperity* (pp. 15–28), St. Louis, Washington: Federal Reserve Bank of St. Louis and the Board of Governors of the Federal Reserve System
- [3]. **GKARTZIOS M., LOWE P.**, 2019, Revisiting neo-endogenous rural development, *Revisiting Neo-Endogenous Rural Development*. In M. Scott, N. Gallent, & M. Gkartzios (Eds.), *The Routledge Companion to Rural Planning* (pp. 159–169). New York: Routledge. <https://doi.org/10.4324/9781315102375-17>
- [4]. **GKARTZIOS M., GALLENT N., SCOTT M.**, 2022a, A capitals framework for rural areas: ‘Place-planning’ the global countryside, *Habitat International*, 127, Article 102625. <https://doi.org/10.1016/j.habitatint.2022.102625>
- [5]. **GKARTZIOS M., GALLENT N., SCOTT M.**, 2022b, *Rural Places and Planning: Stories from the Global Countryside*. Bristol: Bristol University Press
- [6]. **IAGARU R., FLORESCU N., IAGARU P.**, 2016, Strategic management of sustainable development in the countryside of Sibiu Depression-basic of environmental protection, *Environmental Engineering & Management Journal (EEMJ)*, 15(6)
- [7]. **IAGĂRU R., IAGĂRU POMPILICA, CIORTEA G., CHINDRIȘ C.**, 2016, The Management of Resource Sustainable Valorization by Tourism in the Inter-Ethnic Rural Area of Sibiu Depression. *Lucrări Științifice – vol. 59(2), seria Agronomie*, p. 339-342. <https://www.researchgate.net>
- [8]. **KEREKES KINGA și colab.**, 2010, Dezvoltare rurală. Ocuparea forței de muncă în mediul rural, Editura Accent, Cluj-Napoca, pp. 33.
- [9]. **LUCAS jr. R. E.**, 1988, On the mechanics of economic development, *Journal of monetary economics*, 22(1), 3-42
- [10]. **MALIK P. K., SINGH R., GEHLOT A., AKRAM S. V., DAS P. K.**, 2022, Village 4.0: Digitalization of village with smart internet of things technologies, *Computers & Industrial Engineering*, 165, 107938
- [11]. **MURDOCH J., LOWE P., WARD N., & MARSDEN T.**, 2003, *The Differentiated Countryside*. London: Routledge
- [12]. **NALDI L., NILSSON P., WESTLUND H., WIXE S.**, 2015, What is smart rural development?, *Journal of Rural Studies*, 40, 90–101, <https://doi.org/10.1016/j.jrurstud.2015.06.006>
- [13]. **NELSON C. S., NGUYEN T. D., BROWNSTEIN N. A., GARCIA D., WALKER H. C., WATSON J. T., XIN A.**, 2021, Definitions, measures, and uses of rurality: A systematic review of the empirical and quantitative literature, *Journal of Rural Studies*, 82, 351–365. <https://doi.org/10.1016/j.jrurstud.2021.01.035>
- [14]. **NISTORESCU T., IAGĂRU R.**, 2012, Countryside development strategic approach, *Annals of the University of Craiova, Economic Sciences Series*, 1

- [15]. **REBELO S.**, 1991, Long-Run Policy Analysis and Long-Run Growth, *Journal of Political Economy*, Vol. 99(3), p. 500-521
- [16]. **ROMER P. M.**, 1986, Increasing returns and long-run growth, *Journal of political economy*, 94(5), 1002-1037
- [17]. **ȘANDOR S. D.**, 2013, Metode și tehnici de cercetare în științele sociale, Tritonic
- [18]. **ZWOLINSKA-LIGAJ M., GUZAL-DEC D., ADAMOWICZ M.**, 2018, Koncepcja inteligentnego rozwoju lokalnych jednostek terytorialnych na obszarach wiejskich regionu peryferyjnego na przykładzie województwa lubelskiego [The Concept of Smart Development of Local Territorial Units in Peripheral Rural Areas: The Case of Lublin Voivodeship] *Wieś i Rol.* 247–280. <https://doi.org/10.7366/wir022018/13>
- [19]. *** International Fund for Agricultural Development (IFAD), 2016, Rural Development Report 2016: Fostering inclusive rural transformation, IFAD, Rome. Available at: <https://www.ifad.org/ruraldevelopmentreport/download/> (accessed 09 iunie 2024)