Integrated Rural Decision Support System Model Based on Android

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Integrated Rural Decision Support System Model Based on Android

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Abstract. The village needs to develop the independence and welfare of the community by increasing knowledge, attitudes, skills, behaviors, abilities, awareness, and utilizing resources through the establishment of policies, programs, activities and mentoring in accordance with the essence of the problems and priorities of the needs of the village community, related to the implementation of The Village Law Number 6 of 2014, one of which is about an integrated village-based village potential information system to open information on the implementation of village governance to the public, with the opening of public information the citizens can be more active together with the government to build the village. Information that needs to be known, among others: Village administration potential, population administration, Village profile administration. The object of research was Juli Tambotanjong Village, Alue Buya Term Village, Abeuk Budi Village with different Village characteristics, so that the formation of an integrated Android-based Village Database utilizing Cloud Computing and Mobile Computing, which made it easier for users (communities) to access information in making decisions. -that. And the purpose of the Integrated Rural Decision Support Information System Model Based on Android.

1. Introducing

Village Community Empowerment included in Chapter I, Article 1, Law No. 6 of 2014 [9] concerning Villages, is an effort to develop independence and welfare of the community by increasing knowledge, skills, behavior, awareness, and use of resources in determining policies, programs, activities and mentoring in accordance with the essence of the problems and needs of the village community, which has been done by the government to discuss various matters related to the implementation of the law, one of which is about the village information support system that aims to open information on the implementation of village governance to the community, the local community becomes citizens who know nothing about the administration of village governance , in different ways related to the public [1]

Based on the description of the background stated above, some problems can be formulated as follows in the decision support [3]: How to design an integrated Android-based rural decision support information system model, how to design a decision support system for village potential, how to design decision support with village websites in accordance with Village Law No. 6 of 2014 concerning village information systems, how to implement the decision support system for Android-based rural management, which is flexible with mobile computing devices, how to design integrated village information decision support models.
Special Purpose and Urgency of Rural Decision Supporters Encourage community participation in making village development planning decisions that are carried out transparently, easily and flexibly, Arranging village decision support development planning in accordance with the priorities of potential and value of local wisdom, Encouraging community participation in village policy making through village meetings.

2. Methodology

2.1. Village
Law Number 6 of 2014 concerning Villages, affirms that the village is the spearhead of the lowest government that has autonomy regulating development for the welfare of its people [9]. Village Development based on the Village Law aims to improve the welfare of rural communities and the quality of human life and poverty alleviation through the provision of basic needs, the development of facilities and infrastructure, the development of local economic potential, and the sustainable use of natural and environmental resource [3].

2.2. Strategic Issues Related to the Potential of Integrated Villages
Strategic issues in the Village Law regarding village development, finance, assets, governance, rural development, collaboration between villages and village community institutions. This can be described in the following scheme [3].

2.3. System
In designing an information system directed to the maximum utilization of technology consisting of several elements or components that form a network and have the objectives to be achieved. The definition of the system according to Jogiyanto H.M in his book Analysis and Design mentions that: "the system is a collection of elements that interact to achieve a certain goal." [2].

2.4. Information Systems
“An information system is a man-made system that contains an integrated set of components - components of a manual and computerized components that aim to create and collect data, process data, and produce information for users” [10].

2.5. Android
The operating system based on Linux (open source) is used for smartphones and tablet computers. Android provides an open platform for developers to create their own applications needed by various mobile devices. Initially Google Inc. buy Android Inc. newcomers who make software for cellphones. Then to develop Android, the Open Handset Alliance was formed, a consortium of 34 hardware companies, software, and telecommunications, including Google, HTC, Intel, Motorola, Qualcomm, T-Mobile and Nvidia. (http://pusatteknologi.com/android-adalah.html) [5]

2.6. Mobile Computing
Understanding Mobile computing is the ability of technology to deal with the movement / movement of humans in the practical use of computers. Some notions of mobile computing include: Mobile computing is a new paradigm of technology that is able to communicate even though the user is moving. From the definition above we can understand why we need mobile computing. [4] The key word is that we are dynamic human beings who are constantly moving and developing from one state to another. So that it requires a device that is able to follow our movements. Source (http: // worldnews-online-worldpedia) [6]

2.7. Decision Support Model
Decision Support Model consists of: Mathematical model, Database. Software. Decision support software is often referred to as DSS generator. This DSS generator contains modules for databases,
models and management dialogs. This database module provides several things, such as: creation, interrogation and maintenance for database SPK. The database SPK has the ability to find stored database systems. While the model module is used to present the ability to create, maintain and manipulate into mathematical models. [1]

3. Results and Discussion

Potential of plant resources in July sub-district, the potential of young plant resources, Subdistrict of July, Bireuen District, Aceh Province, uses an integer algorithm [2]

![Potential Supporting Graph of Young Plant Decisions in July District](image)

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4. Conclusion

The conclusion of this study is:

a. The 8-5-1 architectural model using Batch training with weight and bias learning rules method produces 93% accuracy.

b. Although MSE from the 8-5-1 architectural model is not the smallest the accuracy is higher and the time is faster than the other 4 models.

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