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APEX System: An Integration of Management Information Concept

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Abstract

Nowadays an information and communication technologies (ICTs) have become a necessity in everyday life. However, not all technological advances are in place and help the problems that occur in rural area such as the lack of ease in making payments between cooperatives in the rural area especially if any people in one cooperatives want to pay using their saving to another person who has a saving in different cooperatives, the difficulty of small medium enterprises in obtaining loans due to unavailability of data, the unavailability of core banking system for cooperatives that can regulate their financial transactions. Traditional methods are ineffective because of possible data incompatibility, a security issues, data integration issues, and the unavailability of data storage of local program. This paper will provide a technological concept that can help solve transactional problems in the rural area community, APEX System, an integration of management information concept.

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1. Introduction

Administratively, Indonesia territory consists of 34 provinces, 511 districts / cities, 82,190 villages [1]. Given the large number of rural areas in Indonesia, rural development becomes a national development program. Rural development is very important as a basis for regional development, poverty alleviation, and inter-regional experience in Indonesia. In 2005, villages in Indonesia needed 61,409 and then increased to 67,211 in 2008 and 74,093 in 2014.

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By 2015, there are 74,754 villages in Indonesia. Thus, the average growth rate that occurred was 2.29 percent or an increase of 1,409 villages per year [1].

The increasing number of villages has implications for the need to improve the welfare of people in rural areas. This is because about 46% of the total Indonesian population lives in rural areas. Based on data from the Central Bureau of Statistics (BPS) in March 2014, the number of poor people in Indonesia about 28.28 million (11.25%) and about 17.77 million people (14.17%) are the poor living in rural areas.

In addition, not all villages in Indonesia have adequate village infrastructure. Based on data from BPS found that 16.39% of villages in Indonesia do not have urban village office. Furthermore, BPS data for February 2015 indicates that only 13.37% of villages have primary or equivalent schools [1]. A total of 15.40% of villages have no electricity. In addition, rural communities in Indonesia, on drinking water from wells, only 13.36% of villages have wells as primary drinking water sources. The village that has lighting on the main road is only 38.19%. Approximately 15.73% of villages have land transportation facilities, road conditions cannot be passed by four or more two-wheeled vehicles throughout the year. Public health conditions in the village have not been supported. According to BPS data, villages with community health center (Puskesmas) only have 12.05% and only about 30.35% of villages have Puskesmas Pembantu (Subsidiary of Puskesmas) [1]. Therefore, the government should immediately do the focus of village development that concerns to the basic needs and supporting facilities. The increase of each village in Indonesia.

There are 5 (five) main problems of villages in Indonesia:

- Character and Competence of Human Resources: Generally elementary school and junior high school level, Rarity in Human Capital and Capital Spirit.
- Community and institutions participation: Capital and Physical Scarcity such as Infrastructure.
- Synergy, land, management and technology: The scarcity of agricultural land, generally farmers only have 0.23 Ha [1].
- Funding & Investment: Own Capital & Financing. Scarcity of Village Financial Institutions.
- Marketing & excellent products: The scarcity of distribution channels for farmer's products.

To overcome the above problems, Committee for National Economy and Industry (KEIN) has developed the main industrial strategy, One Village One Industry (SDSI) and roadmap rural industrialization 2045. At the same time also design and implementation of National Movement strategy with ABCDEFG (Academic - Business - Community - District - Entrepreneur (Village) - Fintech - Government) implement the Rural Roadmap implementation throughout Indonesia. The National Movement is a community movement that encourages the participation of villagers with a network of Village Pioneers / Patriots and Village Vocation to focus on developing local business entities (BUMDesa) and village financial institutions (KopDes) and village industries as a result of the Mental Revolution and Redistribution of National Assets through Five Pillars of National Movement, we developed the concept of APEX system as a tool to speed up this processes, APEX System will provide ease in management information and monitoring the performance of each region in the village.

2. Work background

2.1. Five pillars of national movement

Within the framework of preparing the phasing out of SDSI through five pillars of the National Movement to mobilize rural community participation and the pioneering leadership of village and patriot entrepreneur's community, members of the rural industrialization working group in KEIN proposes five (5) Village Problem Solving Strategies as follows:

- Character Building & Human Resources (Mental Revolution)
Accelerating village entrepreneurs by creating Pioneer as the leader of village mobilizer, building industry, local village youth born and coming from village becoming agent of change, training and guiding society to have character and mental "willing and able to move forward" properties such as Diligent, Self-help & Cooperation. In the language of the Mental Revolution is the Working Ethos (Hard Work, Intelligent Work, Selfless Work and Done Work); Integrity (not dependent on others or Self-Reliance, Shame to be a Parasite); Gotong royong (Cooperation) through the development of village vocation network in the village (as a correction and strengthening

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