



# TECHNOLOGY MODEL AND INFRASTRUCTURE SUPPLY CHAIN MANAGEMENT SYSTEM DISTRIBUTION OF PRODUCT (SMART SHOP) AT NEIGHBORHOOD ASSOCIATION LEVEL

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**Abstract-** In the development of the global economy, today a country should have a strong foundation to create the welfare of society. Food security is one of the strategic issues in the development of a country, especially the developing country, because it has multiple roles as one of the main target of development and one of the main instruments (intermediate goals) of economic development. This system is designed to help the community, especially housewives in buying household appliances, and this is done to raise awareness of the environmental pillars for the welfare of society. Neighborhood Association is part of government structure under within a Village, expected economic power level neighborhood Association can create independence of rural or village. Building the technology model and infrastructure of neighborhood association is part of the rural economic development effort. Where the database system model, application, networking that will be built for stall users and product distribution management for the neighbors is done by the community manager of neighborhood association level. Although using the flexibility method of infrastructure.

**Keyword :** neighborhood Association; technology model and infrastructure; flexibility method of infrastructure;

## I. INTRODUCTION

In the development of the global economy, today a country must have a strong foundation to create the welfare of the community in it. The economic system that there is still a discrepancy between the price and purchasing power of the people, especially in Indonesia is an indicator of the achievement of development goals. If you review the following statement

“Ketahanan pangan merupakan salah satu isu strategis dalam pembangunan suatu negara, lebih-lebih negara yang sedang berkembang, karena memiliki peran ganda yaitu sebagai salah satu sasaran utama pembangunan dan salah satu instrumen utama (tujuan antara) pembangunan ekonomi ....”, (Sen, 1989)

"Food security is one of the strategic issues in the development of a country, especially the developing country, because it has multiple roles as one of the main targets of development and one of the main instruments (intermediate goals) of economic development ...."

Indonesia still needs a lot of time to improve the development of food security. As the current phenomenon occurs in Indonesia temporary wage increases can be eased but commonly followed by higher daily demand increases, resulting in a race between salary / wage increases and goods prices. Based on the description quote that to become a strong nation must strengthen the main elements, such as food security as the basis of nation building, enabling the state will not advance if not fulfilled the basic needs of society.

Neighborhood Association is part of government structure under within a Village, expected economic power level neighborhood Association can create independence of rural or village. Pancasila economy can be applied in line with the development of character with a strong ideology, the mutual assistance instrument in the nation's economic development activities can be projected like the number of advanced cooperatives that are truly trustworthy according to the spirit spirit in running it. On this occasion we strive to implement a model of economic development in a village or village as a pilot in one village around the campus, with the concept of "Development of mutual cooperation as the application of Pancasila soul", this refers to the book title "Pancasila Economic System is the Economic System Guided Community Leadership" written by the Indonesian Pancasila Economic Review, Pearl publisher, 1982, 89 page. On that basis we will carry out engineering model of information technology infrastructure to support economic development activities guide populis cooperation in neighborhood association.

### **Formulation of the problem**

How to design the concept of technological model of economic development activities guide populis cooperation in neighborhood association ?

**Objectives and benefits :** Our research aims to improve the effectiveness of the supply chain management of the basic needs of society with the existence of "Smart Shop" which is managed by some competent in neighborhood association residents and hopes to reduce the cost so that the price becomes cheaper. As for the benefits possible from the built infrastructure can facilitate the public to get the basic needs with the help of technology gadgets / android. And the neighborhood association has an independent business that is " Smart Shop ", the managers by the citizens, the capital of the citizens, and the benefits to the citizens.

## **II. LITERATURE REVIEW**

In some of the reviews we have obtained we cite several journal literature on technologically assisted economic development. According to Dr. Devi Fitriana in his writings "Utilization of Information Technology as a supporter of achieving the goals and objectives of the organization must be balanced with the effectiveness and efficiency of its management". This statement supports the implementation of the flexibility of infrastructure where to improve the effectiveness of appropriate management needs

"Tujuan penulisan makalah ini adalah untuk menunjukkan adanya gejala kegagalan pembangunan ekonomi pedesaan yang bersifat sistematis. Kegagalan tadi diawali oleh adanya ketidakjelasan ideologi yang dijadikan kerangka kerja pembangunan ekonomi pedesaan. "Utopia" apa yang dijadikan dasar ideologis untuk mencapai keberhasilan pembangunan ekonomi tidak terlacak dengan jelas dalam pragmatisme pembangunan ekonomi di pedesaan....." (Jurnal Forum Peneliti Agro Ekonomi, Volume 20 No. 2, Desember 2002, 47 – 59, "Gejala Kesenjangan Antara Ideologi Dan Pragmatisme Pembangunan Ekonomi Masyarakat Pedesaan").

"The purpose of writing this paper is to show the existence of symptoms of the failure of rural economic development that is systematic. The failure was preceded by the lack of ideological clarity which was made the framework of rural economic development. What "Utopia" is the ideological basis for achieving the success of economic development is not clearly traced in the pragmatism of economic development in the countryside ..... " until now there has been no successful development character implemented in rural Indonesia. we need to develop rural informatics technology so that people can use technology for economic development in their environment. We together with the local association apparatus work together to build a model of technology and infrastructure that can be used to support business processes at neighborhood association level.

**"Rather, the set of resources that made feasible both innovation and continuous improvement of IT systems was the true source of sustainable competitive advantage. That set of resources is IT infrastructure".** ProQuest: [Capturing flexibility of information technology infrastructure: A study of resource characteristics and their measure](#), Duncan, Nancy Bogucki. Journal of Management Information Systems: JMIS; Armonk Vol. 12, Iss. 2, (Fall 1995): 37. If it refers to the above journal citations that the IT infrastructure is a process of continuous innovation and IT system improvement to become a competitive resource, it is in line with our research objective of building IT infrastructure to complement sustainable activities in supporting the process of economic development at the level neighborhood association.

We determined the research incubator area in Jakarta precisely on Jl. H. Juhri, South Meruya Village, Kembangan Sub-district, West Jakarta, considering that Jakarta is a city where its population is mixed from various migrants according to the statement in Desi Ramayanti's article that "The indigenous people of Jakarta are the Betawi, a community of mixed descent, a Mixture of different races and ethnic groups, who for generations have made Jakarta their home ". Where the native of Jakarta is Betawi, the mixed-breed community, a mixture of races and ethnic groups, which for generations have made Jakarta their home.

### III. RESEARCH METHODS

Allowing the implementation of this research using the approach method of flexibility, the application method adapted to the situation and condition of the object of research, where business activity takes place that is economic development for rural areas that require appropriate technology and infrastructure. Through the approach of the infrastructure flexibility method requires a harmonization in which conditions of human capabilities and technological elements must be dynamically adjusted to the existing development.

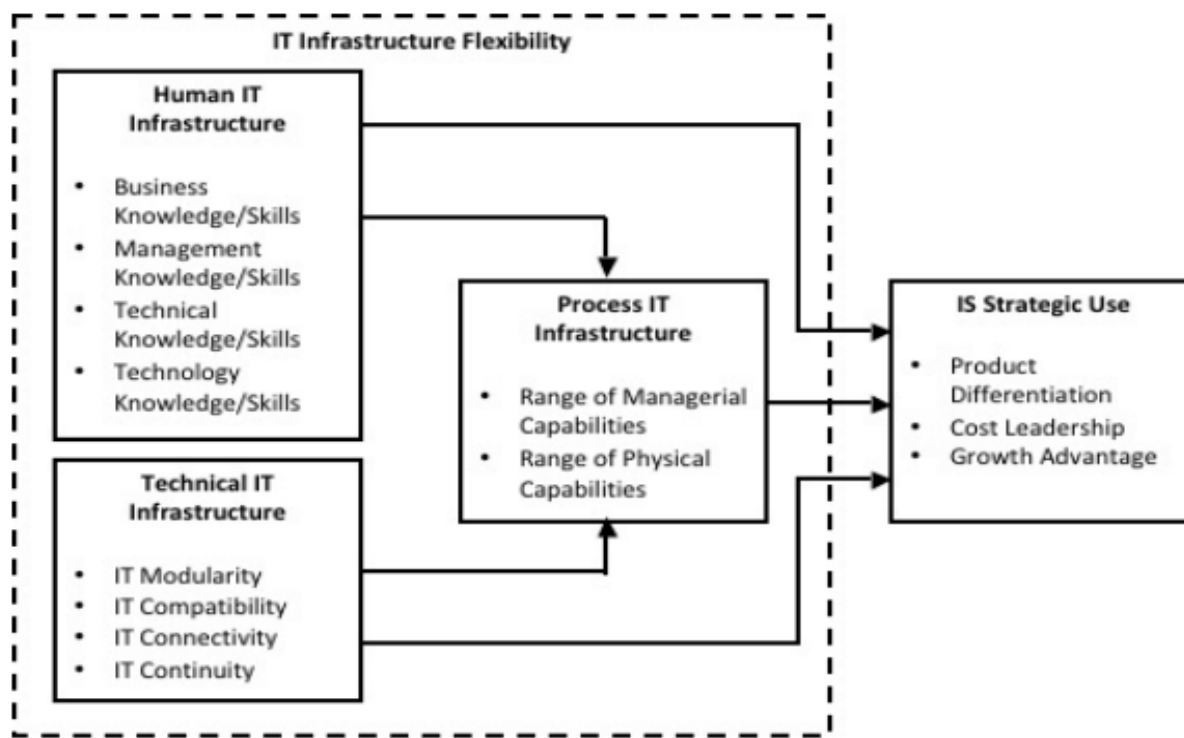


Figure 1. The Proposed Conceptual Framework

Source : International Journal of Digital Society (IJDS), Volume 5, Issue 4, December 2014, page 995-1001, Norizan Anwar & Mohamad Noorman Masrek.

#### Human IT Infrastructure

The purpose of this system activity model is expected to help the community develop their business environment and bring together experts (business, management, technology) so as to form business in community level.

#### Technical IT Infrastructure

The current phenomenon smartphone used either by small children to parents, this needs to be utilized in business processes. So we took the initiative to create a system model related to that for businesses in the neighborhood area and managed by people among those who are capable or experts in their field. From the meeting of these experts will emerge the potentials that allow to follow up the establishment of business in the community level. And it is possible to build infrastructure that is adapted to the conditions of the existence of the environment (needs of people, geographical, distance of the house). "That is, unique characteristics of the IT platform make the cost and value of technological innovation different for different firms. One firm's infrastructure may make strategic innovations in business processes feasible, while the characteristics of competitors' infrastructures may likewise cause their inability to imitate the innovations rapidly enough to mitigate the first mover's advantage. This set of characteristics has been loosely described as infrastructure "flexibility."

ProQuest: [Capturing flexibility of information technology infrastructure: A study of resource characteristics and their measure](#), Duncan, Nancy Bogucki. Journal of Management Information Systems: JMIS; Armonk Vol. 12, Iss. 2, (Fall 1995): 37.

“How can firms enhance their operational performance in changing markets, and how do product design choices and information technology (IT) infrastructure design facilitate such performance? An important set of antecedents of high performing supply chains, we believe, lies in modularizing product designs and complementing them with a highly flexible IT-enabled supply chain infrastructure.” **Published in:** [IEEE Transactions on Engineering Management](#) ( Volume: 57, **Issue: 2**, May 2010 ), **Page(s):** 240 – 254, **Date of Publication:** 22 February 2010.

We conduct this research with reference to business activities that can be understood by neighborhood association. So it is necessary to do a stage in conducting this research in order to understand the purpose and benefits of the plan. This research is the first step to know the utilization of infrastructure that will be built.

“The waterfall model is also called the software life cycle. Takes basic activities such as specification, development, validation, and evolution and represents it as different process phases such as requirements specification, software design, implementation, testing and so on”. Firdaus, S.Kom, MM & Widya (2018). ATTENDANCE RECORD PROGRAM WITH WEB-BASED DESIGN FOR FIELD EMPLOYEES IN PT. PUTRA MAJU LESTARI. Number: IRJCS/RS/Vol.05/Issue03/MRCS10080, ISSN: 2393-9842. based on the results of the above analysis it is possible to make a model of smart shop system activity in the community level.

#### IV. RESULT

Based on observations and interviews with residents in the research sites on the use of technology in business activities for the coverage of environmental associations can be said to have not existed. The development of technology and infrastructure needs a mature assessment so that it can really help the people in the business process. This system is designed to help the community, especially housewives in buying household appliances, and this is done to raise awareness of the environmental pillars for the welfare of society.

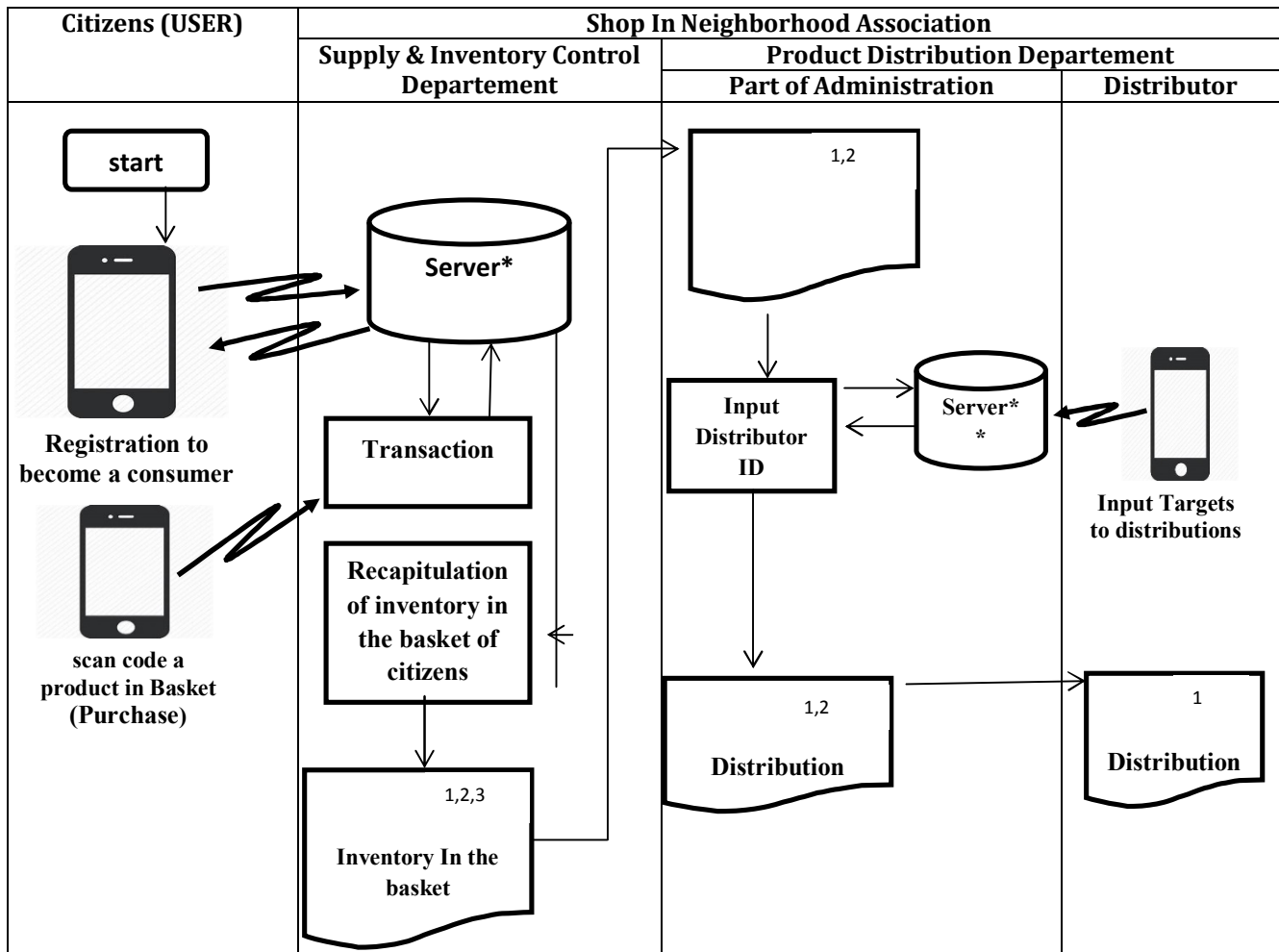


Figure 2. Model activiteis system smart shop neighborhood association level

Appropriate picture model activiteis of smart shop system that can be described as follows:

1. Citizens in the transaction process using smartphones for account registration and to purchase products that have been provided. From smartphone data will be integrated with smart store server so that will be monitored condition of administrator of product available and bought by citizen.
2. Smart shops that monitor the availability of products provided in citizens can control inventory based on data recorded on the server to be recapitulated by smart store managers.
3. Distribution department at smart shop will input data of citizens who need to be supplied and adjusted to the distributor who will send it.
4. List of products will be distributed by several distributors with the form of recorded reports through smartphones and integrated with smart shop servers. of the resulting model can be projected that technology will actually facilitate transactions for citizens in business activities at the neighborhood association level. the resulting model can be projected that the actual utilization of optimal technology will facilitate transactions for citizens in business activities at the neighborhood association level. With integrated applications between consumers and smart shops can improve performance in the process of product inventory recapitulation in the basket.

## V. CONCLUSION

Model of smart shop system activity at the harmonious level of citizens can be built if supported by citizens and experts who are domiciled. The technology and infrastructure model can be aligned according to conditions and needs so we tend to use the infrastructure flexibility method. In the process of developing the neighborhood association-level technology and infrastructure model can be used in rural populations if it utilizes an easy and familiar application menu. The use of smartphones as a transaction medium integrated with intelligent store servers can also be used to make it easier for people to buy products. The development of technological infrastructure in this environment supports widespread economic development if all environments can use the same application and the same method. The IT infrastructure development paradigm at the neighborhood association level should be focused in order to be visible. The flexible infrastructure development method is used because of unequal rural conditions and allows flexible of infrastructure to be used to support the development of rural technology models. All infrastructure development process is to support the implementation of smart shop as the root in national economic development.

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