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#### **Preface**

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# 5th INTERNATIONAL SEMINAR ON SUSTAINABLE URBAN DEVELOPMENT (5th ISoSUD) 2020

#### **PREFACE**

International Seminar on Sustainable Urban Development (ISoSUD) is an International Seminar held by the Faculty of Landscape Architecture and Environmental Technology, Universitas Trisakti, Jakarta Indonesia. The 5th ISoSUD in 2020 carried the theme "THE SUSTAINABLE DEVELOPMENT GOALS: INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY FOR BETTER WORLD". The ISoSUD has been conducted regularly every 3 years since 2008, and this year is very special because eventhough we are all facing a global pandemic, the enthusiasm of researchers and academics in Indonesia and around the world to participate is still high so that this seminar could be carried out virtually.

Due to the Covid-19 pandemic condition since early 2020 that does not allow the committee to gather many people in one place, this year ISoSUD could not be conducted like the four previous ISoSUD in the auditorium for 1-2 days. Thus the 5th ISoSUD was held virtually in 1 day, on Wednesday, August 5, 2020, using the zoom meeting facility. Although virtually, there were 200 participants in the plenary session. The call paper system that has been used since the first ISoSUD in 2008 succeeded in inviting 150 papers that selected into 100 papers were presented using digital technology via video recording. Those 100 papers were selected further to be published in IOP Proceedings Indexed by Scopus. As for the papers that do not pass the selection, they will be published in a national journal.

5th ISoSUD was also special because it involved co-hosting universities consist of eight from within the country and three from abroad: Universitas Tridinanti Palembang; STT Pekan Baru; Universitas Fajar, Makasar; IT Del, Sitoulama, Sumatra Utara; Universitas Pasundan, Bandung; Universitas Negeri Manado; IT PLN, Jakarta; Universitas Pembangunan Jaya; Institute for Spatial Planning and Environment Research, India; University Putra Malaysia and University of Baghdad. Besides that, it was supported as well by professional association Ikatan Ahli Teknik Penyehatan Indonesia (IATPI), study program cooperation body (Badan Kerja Sama Teknik Lingkungan, BAKERMA-TL) and Global Water Partnership Southeast Asia (GWP-SEA).

The advisory board consists of prominent people in the 5<sup>th</sup> ISoSUD filed. The advisory board acts as ambassadors for the 5<sup>th</sup> ISoSUD. To some extent the quality of the 5<sup>th</sup> ISoSUD is approved by the members and academic credentials of its advisory boards.

In the plenary session, there were main speakers who delivered more focused seminar themes, they were:

#### Welcoming Speaker:

Prof. Dr. Agus Setyo Budi, M.Sc – Head of Service Institutions of Higher Education  $3^{\rm rd}$  Region, Jakarta

#### Keynote speaker:

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Prof. dr. Ali Ghufron Mukti M.Sc., Ph.D. - Rector of Universitas Trisakti, Jakarta

#### **Invited speakers:**

- Fany Wedahuditama ST, MT, MA Regional Coordinator of Global Water Partnership Southeast Asia
- Prof. Madya Lar. Dr. Suhardi Maulan Dean of Faculty of Architectural Design of Universiti Putra Malaysia, Malaysia
- Prof. Dr. Kareem Hasan Alwan Centre of Urban Regional Planning University of Baghdad, Iraq

While during the class presentation session, a presentation from the participants representing the 5<sup>th</sup> ISoSUD co-host was carried out. The number of seminar participants was around 200 people consist of academics, researchers, professionals that are from universities, government, private sector, industrial practician and other related institutions. The origin of seminar participants came from New Delhi-India, Baghdad-Iraq, Malaysia, Japan, USA and several provinces in Indonesia.

There were increasing in number of participants and speakers from various countries every time the ISoSUD was held. Several papers were co-authored by authors from Indonesia and other countries.

Hopefully the Covid-19 pandemic will pass soon. The committee hopes that the 6<sup>th</sup> ISoSUD in 2023 could be carried out under normal conditions, involving more speakers from different countries interact each other in the seminar room. In addition, the network for conducting seminars between several universities in Indonesia and abroad as co-hosts could also be improved.

Until we meet again in the 6th ISoSUD in 2023.

Jakarta, September, 2020

Chair person

 $5^{\text{th}}$  International Seminar on Urban and Sustainable Development 2020

Dr. Ir. Diana Irvindiaty Hendrawan, MSi

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## Waste bank as business development solution in e-warong KUBE PKH

#### Y Sariningsih<sup>1,\*</sup>, Y Purwanti<sup>2</sup> and E Dinihayati<sup>2</sup>

- <sup>1</sup> Social Work Department, Universitas Pasundan, Bandung, Jawa Barat, Indonesia
- <sup>2</sup> Business Administration Department, Universitas Pasundan, Bandung, Jawa Barat, Indonesia

Abstract. The Ministry of Social Affairs of Indonesia cooperates with the State Bank Association implemented the electronic program of Warung Gotong Royong KUBE PKH (e-Warong KUBE PKH) as a community business served as an agent managed and owned by beneficiaries of the Family Hope Program (Program Keluarga Harapan/PKH) using non-cash transactions, most of small stall (warung) are located in a narrow alley in urban areas, but this program has not yet given a significant income generating for their members. The research objective was to describe the ability of e-warong to develop business. The research method used a qualitative approach by collecting data through a Focus Group Discussion which was attended by informants from e-warong actors, social advisor and Social Service Board representatives in the cities of Bekasi, Bandung, Banjar and Tasikmalaya, West Java Province. The results showed that e-warong operated mostly when only the distribution of Non-Cash Food Assistance (Bantuan Pangan Non Tunai/BPNT), and business development in the form of e-commerce (electricity payments, health insurance, mobile phone pulses etc.) did not work because the ewarong actors not yet familiar with business development in the digital era priority for distributing, selling, purchasing, marketing products (goods and services) by utilizing telecommunications networks such as the internet, television or other computer networks. The conclusion refer to utilize the facilities and infrastructure owned by e-warong for business development not only to improve e-commerce activities but also to run a waste bank for economic and social empowerment.

#### 1. Introduction

Priority for poverty reduction are the existence of social security, social empowerment, social rehabilitation, empowering themselves and their families. Some policies to respond are innovative policies would surely include digital payment technologies, e-learning initiatives, diversification of the international relations, debt- relief packages and the fiscal prudence [1]. Based on the Integrated Database on Indonesian Social Statistics Board, the number of families with poor criteria is 27,670,069 households or 92,994,742 people, the data is dynamic and every 6 (six) months Social Service Agency carry out data verification and validation. Suitable occupancy of citizen significantly influence the level of poverty [2]. The Ministry of Social Affairs cooperates with the Association of State Banks (HIMBARA), Bank Negara Indonesia (BNI), Bank Rakyat Indonesia (BRI), Bank Mandiri dan Bank Tabungan Negara (BTN) (PMK No.254/PMK.05/2015) [3] opened a small stall which is connected to the internet or called *e-Warong KUBE PKH* which is mostly located in villages and small alleys and

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<sup>\*</sup>yucesp@unpas.ac.id

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using Information and communication technologies (ICTs), this technology play a significant role in the socio-economic development of a developing country [4]. This social business means social entrepreneurs as people with the mission to create and sustain social value [5]. The succed of e warong which managed by woman's will depend on her confidence highly and education [6].

E-warong is a place of business and agency that is managed and owned by the poor people as beneficiaries of the KUBE programs, this business fully supported the implementation of The Family Hope Program (FHP)/Program Keluarga Harapan (PKH) and Subsidized Rice Program/Beras Sejahtera (Rastra) are in non-cash transaction. FHP as the main social assistance program has a significant direct impact on poverty reduction and the reduction of inequality [7]. The amount of grant is IDR 10,000,000 (ten million rupiah) for 1 (one) small stall, which is used for rehabilitation of stalls, shelf purchases, storefront purchases and other supporting facilities or equipment. The e-warong partners are social worker as Social Advisor (Pendamping Keluarga Harapan/PKH, Tenaga Kerja Sosial Kecamatan/TKSK and other assistants) under the coordination of Social Service Agency. Social workers as facilitator can facilitate relationships between low-income households and financial services industry to help families advance for long-term financial interest [3]. Social work needs some education include training which equips them for new challenges related broader knowledge-based economy [5].

Areas of business development are in a form retail businesses, non-cash transactions with *BiSA* card to purchase mobile phone pulses, electricity tokens, payment of electricity bills, water supply bills (*PDAMs*) and *BPJS* (health insurance) [8]. High motivation factor in running a business becomes an important factor to achieve a better living condition as a primary goals [1]. *E-Warong KUBE PKH* as poverty reduction program should involve an entrepreneurial management organization [2]. The poverty handling in this case is manifested in the accessibility of e-warong members in inproving social capital capacity, skills and income although it has not been significant yet [9] and the creativity and innovation of business actors is still in lower level. This paper used terminology *e-warong* meaningful of *e-warong KUBE PKH*. The aim and purposes of study were to describe:

- The activities of retail business of *e-warong*.
- The implementation of business development using Kartu BISA for the purchase of mobile phone pulses, electricity tokens, payment of electricity bills, PDAM and BPJS.
- Waste bank as a business development solution.

*E-Warong* should develop the ability to prepare financial proposals, assisting in field verification activities [4], and as a social organization, it's implementation refers to the management principles of the Human Service Organization as a set of organizations whose principal function is the protect or enhance the personal well-being of individuals by defining, shaping, or altering their personal attributes as human service organizations [5]. The function of Business Facilities Development Assistance/*Bantuan Pengembangan Sarana Usaha (BPSU)*:

- As a place for marketing of e-warong products and the results of PKH.
- Providing business needs and daily basic needs at low prices for members of KUBE and PKH participants.
- Providing electronic financial transactions, both for disbursement of social assistance, purchases and other payments [4].

In accordance with *e-Warong* as a humanitarian service organization aims to change the personal attributes of its members to achieve better welfare. Performance assessment as a humanitarian organization refers to the effectiveness and efficiency of the implementation of its activities. absence of management training programs [10]. Moreover low participation is exacerbated by low public awareness about the environment. This measurement is important to ensure the sustainability of the program to increase income through productive economic business as a series of activities aimed at increasing the ability to access economic resources, increasing the ability of businesses, increasing work productivity, increasing income and creating mutually beneficial business partnerships [4]. Most *e-Warong* only carry out business activities when distributing non-cash food aid, so the stall closes outside of these activities.

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This indicates that the actors' creativity must be increased in order to develop their businesses better. PKH social advisor as a social worker and e-Warong actor as a client aimed to helping business development, so the relationship between the social worker and the client is focused on strengthening the ability of mastering through problem solving [6]. PKH Social Advisor is very important to reach the e-Warong goal, namely to increase the family welfare of the e-Warong caretaker and members [2]. Social workers play multiple leadership roles in groups, the roles are brokers, mediators, educators and facilitators [7]. Social assistants in this case are PKH Advisor and TKSK who have duties and roles in the context of being a broker, mediator, educator and facilitator who helps e-Warong in developing productive economic businesses. The poor to be managers and agents of digital financial services [4]. It's activities very unique because they prioritize social goals over group instead of individual, so the role of social advisor cannot be separated from these activities in order to lead to socially group goals and itt is not similar to Micro, Small and Medium Enterprises (MSMEs) which is managed by individuals. The business development used cards called Kartu Bisa [4] means an electronic payment instrument for Non-Cash Food Assistance as a payment instrument that features electronic money and savings, which can be used as a medium for distribution of various social assistance [8]. For business developmen could proposed a loan to develop their business [11].

Waste bank as a form of business managed by e-warong as income generating. It is a concept of collecting dry and sorted waste and has management like a bank but what is saved is not money but garbage. The economic advantages are marked by extra income of poor families used to meet the food needs, to meet the cost of children's meals and to help the rental cost of boat. Meanwhile the advantages of waste savings socially is there are a change in behavior that is marked by a change of behavior in sorting the inorganic waste by types and the increasing participation in preserving the environment. There is individual skills improvement on poor families which is marked by the ability to recycle the inorganic waste into creation things [12]. Savers who are also called customers have a savings book and can borrow money that will later be returned with trash worth the money borrowed to empower women [13]. Waste that is saved, weighed and valued with a certain amount of money that will later be sold at factories that have worked together. Whereas plastic packaging is bought by local *Pemberdayaan Kesejahteraan Keluarga (PKK)*/Family Welfare Empowerment women to be recycled into handicraft items. *PKK* is a social organization that empowers women to participate in the development of Indonesia. Factors that encourage participation in waste banks, among others are motivation and environmental conscious behavior [14].

The purpose of building a waste bank is actually a strategy to build public awareness so that they can familiar with waste to get immediate economic benefits from waste. All while helping people living in poverty build better futures. In other words, a ladder of opportunity is created for the poor by providing access to income, goods, and services [15]. Thus, the waste bank cannot stand alone but must be integrated with the community movement to get the immediate benefits felt are not only the economy, but also the development of a clean, green and healthy environment. Waste Bank can also be used as a solution to achieve clean and comfortable settlements for its citizens. With this pattern, residents in addition to being disciplined in managing waste also get additional income from the garbage they collect, and nationally targeted to build waste banks in 250 cities throughout Indonesia.

The participation of housewife can increase if the intensity of non-formal education and the level of assistance are improved [16]. This is a way to turn trash into money while at the same time maintaining the cleanliness of the environment from rubbish, especially plastic, and can also be reused. Usually it will be utilized again in various forms such as bags, wallets, tissue boxes, and others. Requirements for rubbish that can be stored are neat in terms of cutting. The point is when you want to open the packaging, use tools and neat in the cutting. Then it has been cleaned or washed. There are two forms of savings in a garbage bank. The first is rupiah savings, which is specifically for individuals. By bringing trash then exchanged with a sum of money in the form of savings. Some examples of plastic packaging that can be exchanged are according to the quality of the plastic. The first quality is plastic that is slightly wide and thick (rice sacks, detergents, deodorizers, and floor cleaners). The second quality is plastic from instant drinks and the size is rather small (instant coffee, supplements, children's drinks, etc.). The third

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quality is instant noodle plastic. Then the 4th quality is mineral water plastic bottles. The lowest one, namely quality 0, is plastic wrap that has been torn or not neat in opening the packaging. Because it will be difficult to use again in various forms such as bags, wallets, tissue boxes, and others. For the last quality, it must be deposited in the form of small pieces (chopped). The second form of waste savings is called environmental savings. Environmental savings are the participation of companies and businesses in environmental conservation. These savings cannot be cashed out, but their customers will be published to the media as companies or businesses that preserve the environment.

#### 2. Methodology

#### 2.1. Research design

The research method used a qualitative approach by collecting data through a Focus Group Discussion which was attended by informants from e-warong actors, social advisor and Social Service Board representatives in the cities of Bekasi, Bandung, Banjar and Tasikmalaya, West Java Province.

#### 2.2. Subject characteristics

This study used a qualitative approach, qualitative research to get a picture of the social and economic empowerment of *e-warong*. The target audiences for the implementation of the research activities were 20 people consisting of representatives of the City of Bekasi (City Social Service, South Bekasi TKSK, PKH Companion, Bekasi City Cortex), representatives from the City of Bandung (Dinsosnaker Kota Bandung, Lengkong TKSK, PKH Companion, Cibiru District TKSK and TKSK Rancasari). Representatives from Tasikmalaya City (City Social Service, Tawang TKSK, Cihideung District TKSK, PKH Assistant and Tasik City TKSK) and representatives from Banjar City (City Social Service, PKH Companion, Banjar City TKSK and Banjar Kortek).

#### 2.3. Data collection process

The method of implementing activities uses the Focus Group Discussion (FGD), which is widely known for making it easy for researchers to establish openness, trust and understanding of the perceptions, attitudes and experiences of the target audience as informants about the Garbage Bank as an E-Warong PKH e-Warong Productive Economical Business Development. The FGD was carried out at the Social Service Office of West Java Province, facilitated by the Head of Poor Handling, the Head of Urban West Java Province PKM and the Coastal Head of West Java Province. The steps for implementing FGD activities are as follows:

- 2.3.1. Preparation steps. Formulate the objectives to be achieved, both general and specific: get a picture of the Waste Bank as the Development of Productive Economical e-Warong Business KUBE PKH.
  - Determine the type of discussion that can be carried out in accordance with the objectives to be achieved; active participation of participants.
  - Establish the problem to be discussed by the waste bank as the development of KUBE e-Warong business.
  - Prepare everything related to the technical implementation of the discussion (class room with all the facilities, moderator and notepad).

#### 2.3.2. Implementation of the discussion

- Check all preparations that are considered to affect the smoothness of the discussion.
- Providing direction before the discussion, by presenting the FGD objectives and the rules of the game that have been set. Discussions still pay attention to the atmosphere or climate of a pleasant discussion, by showing an attitude not tense, not corner each other etc.
- Give equal opportunity to each participant in the discussion to express his ideas and ideas.

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• Controlling the discussion on the subject matter being discussed, this is very important to keep the discussion from expanding.

#### 2.3.3. Closing the discussion

- Make notes on the main points of discussion as conclusions in accordance with the results of the discussion.
- Conduct a review of the discussion by asking the opinions of all participants as feedback for further improvement.
- 2.3.4. Supporting and inhibiting factors. Supporting factors are 1) Provincial Social Service facilitates space for FGD implementation, 2) Appreciates research activities so that it can be used as a source of data for evaluating the implementation of KUBE e-warong. The inhibiting factors are 1) There are participants as informants who are not present even though participation in the form of attendance and ideas is needed, 2) Time limitations.

#### 2.4. Data analysis

The data based on focus group discussion result will be analyzed by organizing it into categories on the basis of themes, concepts or similar feature. After all the data have been categorized, then organized the raw data into qualitative.

#### 3. Results and discussion

*E-warong* often closes and activities only when the distribution of non-cash food aid contain of rice and eggs. Various facilitation has not been used optimally such as facilities and tools consist of a) Stalls, b) Display/storefront and storage of goods/ shelves, c) Agent nameplate, and d) Stall signboard. While the device includes a) EDC (Electronic Data Capture) Machine. b) Internet network, and c) Smartphone / tablet. [4]. The completeness of facilities and tools are a potential for business development to expand to e-commerce and other business, and consider the range of consumers, not only beneficiaries but also the community as a whole, so that e-warong need to expand the market for product sales and business relationships to strengthening partnerships. By developing into e-commerce, consumer could be very broadly defined according to the business development goals. They are people who buy stall products, pay bills, and who actually involved in finance business development. Without consumers who come from outside beneficiaries of PKH, there is no business to develop. Based on the values sought, to get consumers satisfaction needs to add product features, perhaps a consumers are forced to buy a product because they were not know other products that can meet their needs. Maybe a consumer knows a product that they need but doesn't know where to buy it. Other consumers may buy products for something that is not really the actual function of the product.

Business development uses markets to find out where to find new markets both geographically and in ways of shopping, so *e-warong's* consumers find a way to reach that market. They are usually located in a place where they lives so that are where the preferences will be formed. In addition to location/geographical factors, there are several other factors to consider such as demographics (age, race, religion, gender, family size, ethnicity, income and education), lifestyle and the mindset of someone to buy something influences buying decisions or is involved in business development. Relationships strongly support business development by building a trust and integrity of business agents for each product or service through product concepts, partnerships and other strategic programs. Relationships with consumers, partners, workforce, and partners must be built properly. All this for the sake of business continuity and all the products it sells.

#### 3.1. KUBE PKH e-warong business development

There are nine type of human basic needs and e-warong only distributed rice and egg to the consumers being the Beneficiaries Family/*Keluarga Penerima Manfaat (KPM)* as permanent consumers which get the amount of non-cash food aid IDR 110,000/KPM/month. If the money is not spent in the month, then

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value of the grant will be stored and accumulated in the electronic food grant account [8]. E-warong also open to the community living around it as potential market place. Following are the results of the FGD on developing KUBE e-warong retail business:

Table 1. KUBE PKH e-warong retail business development.

| No | Retail Item            | Price -   | <b>Business Development</b> |                               |   |
|----|------------------------|---|-----------------------------|-------------------------------|---|
|    |                        |   | Customer                    | Market                        | Partnership   |
| 1  | Rice                   | The reference price for purchases at farmers, the price of IDR. 7,300 per/kg, the reference price for sales at consumers IDR. 9,300/kg  | Beneficiary<br>Group (KPM)  | Community around the location | Obtained from Bulog (Logistic Agency) and other suppliers |
| 2  | Sugar                  | The reference price for purchases at farmers is IDR. 9,100/kg, while in consumers it is IDR. 12,500/kg.   | None                        | Community around the location | Diperoleh dari<br>pemasok                                 |
| 3  | Cooking oil and butter | The reference price is set at the consumer for bulk oil at IDR 10,500/liter, and simple packaging at IDR 11,000/ liter.  -The reference price is only set for   | None                        | Community around the location | Obtained from suppliers                                   |
| 4  | Beef and chicken       | consumer purchases is IDR. 80,000/kg for frozen meat. As for fresh meat, the front quads are IDR. 98,000/kg, the hamstrings are IDR. 105,000/kg, the brisket is IDR. 80,000/kg, and the IDR. 50,000/kg.  - The reference price for purchasing chicken meat at farmers is IDR. | Commodity<br>not available  | Community around the location | -   |
| 5  | Egg                    | 18,000/kg, at consumers IDR. 32,000/kg. The reference price for purchases at farmers is IDR 18,000/kg, and at consumers is IDR 22,000/kg.   | Beneficiary<br>Group (KPM)  | Community around the location | Obtained from<br>Bulog and other<br>suppliers             |
| 6  | Soy                    | <ul> <li>Local soybeans for the reference purchase price at farmers are sold at IDR 8,500/kg, at the user at Rp 9,200/kg.</li> <li>Imported soybeans, the reference purchase price in the farmer is IDR 6,550/kg, and in the user is IDR 6,880/kg.</li> </ul>                 | Commodity not available     | Community around the location | -   |
| 7  | Corn                   | <ul> <li>The reference purchase price at farmers is sold at a price range of IDR 2,500 to IDR 3,150/kg.</li> <li>The reference price for sales to consumers is IDR 4,000/kg.</li> </ul>   | Commodity not available     | Community around the location | -   |
| 8  | Kerosene /<br>LPG 3 kg | LPG 3 kg IDR. 23,000  | LPG is not available        | Community around the location | -   |
| 9  | Red Onion              | <ul> <li>-The reference price for purchases at farmers is IDR. 15,000/kg.</li> <li>-The reference price at the consumer IDR. 32,000/kg</li> </ul>   | Commodity not available     | Community around the location | -   |

Source: FGD 2018.

The development of retail businesses has the potential to increase the income of e-warong actors when the consumer, market and relationship components are strengthened, however, *e-warong* has not been able to achieve optimal results due to limited business management knowledge, and a weak of social entrepreneurial spirit. From the price illustration, e-warong can calculate income generating if the maximum number of consumers and diversified products sold is quite diverse.

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#### 3.2. Business development using BISA cards

Beneficiary Families (KPM) also get a BPNT kit, which is an instrument consisting of a Combo or BiSA card, PIN (Personal Identification Number) and program information submitted to KPM in registration process. KPM also has a food grant electronic account, which is a savings sub account (e-wallet) that has characteristics of a Basic Saving Account (BiSA), which strongly supports business development and table 2 explain the type of e-commerce which can be operated by e-warong.

**Table 2.** Business development using BiSA cards.

| No  | Bisnis Online              | <b>Business Development</b> |  |   |  |
|-----|----------------------------|-----------------------------|--|---|--|
| 110 | Dishis Onune               | Customer                    | Market   | Partnership   |  |
| 1   | Cellphone credit           | -                           | Community around the location                              | <ul><li>Partnership with banking</li><li>Using <i>Electronic Data</i><br/>Capture (EDC)</li></ul>         |  |
| 2   | Electric Token             | -                           | Community around the location                              | <ul><li>Partnership with banking</li><li>Using <i>Electronic Data</i></li><li>Capture (EDC)</li></ul>     |  |
| 3   | Electricity payment        | -                           | Community around the location                              | <ul> <li>Partnership with banking</li> <li>Using <i>Electronic Data</i></li> <li>Capture (EDC)</li> </ul> |  |
| 4   | PDAM (Water<br>Supply)     | -                           | Potential of<br>the<br>community<br>around the<br>location | <ul><li>Partnership with banking</li><li>Using <i>Electronic Data</i><br/>Capture (EDC)</li></ul>         |  |
| 5   | BPJS (Health<br>Insurance) | -                           | Potential of<br>the<br>community<br>around the<br>location | <ul> <li>Partnership with banking</li> <li>Using <i>Electronic Data</i><br/>Capture (EDC)</li> </ul>      |  |

Source: FGD 2018.

The results showed that the development of retail businesses and the use of BiSA cards was still very low, and *e-warong* was only active when distributing Non-Cash Food Grant. Partnerships with banks incorporated in Himbara have not yet been utilized through in-e-warong facilities, because they can start an online business and compete with other agents. E-warong can apply online business which has become the work style of many people with various factors, ranging from binding working hours, managing time with family, and avoiding traffic jams that occur almost every day and home-based online business as a way to get income. Through online business for the marketing of groceries and other service products, it can be more effective by utilizing rehabilitated places to do business, the required capital is also relatively small and supported by Himbara, so that enough with the internet and tablets or smartphones, e-warong can make money.

Another alternative to business development due to the difficult development of e-warong in terms of developing retail businesses and the use of BiSA cards is as a waste bank manager, which is a place used to collect disaggregated waste. Results from the collection of sorted waste will be deposited to the place making crafts from garbage or to garbage collectors. The garbage bank is managed using a system such as banking done by volunteer officers. The depositor is a resident who lives around the location of the bank and gets a savings book such as saving at a bank. Waste banks have several benefits for humans and the environment, such as making the environment cleaner, making people aware of the importance of cleanliness, and making waste an economical item. The benefit of the garbage bank for the community is that it can add to the people's income because when they exchange their waste they will get a reward in the form of money collected in the account they have. People can at any time take money from their

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savings when they have accumulated a lot of savings. Rewards given to savers are not only in the form of money, but also in the form of staples such as sugar, soap, oil and rice. The garbage bank is also beneficial for students who are less fortunate in financial matters, some schools have implemented tuition payments using garbage.

#### 3.3. Business development solutions through waste banks

Business development through this garbage bank can be synergized with *e-warong* activities with all available facilities, because the benefits obtained by savers are not only in the form of money, but in the form of foods as basic needs such as sugar, soap, oil and rice. Business development considerations through a waste bank are: 1) The cost of operating a waste bank which is relatively cheap, only requires space for temporary garbage storage, 2) garbage scales, 3) Universitas Pasundan has already "Daun Kapas" waste bank managed by the Department of Environmental Engineering, so that *e-warong* can arrange partnership with higher education and other parties to get more education regarding waste bank management. Table 4. explain waste bank as a solution for e-warong business development.

Table 3. Business development.

Business Development

| Type of    | Business Development |                      |  |  |  |
|------------|----------------------|----------------------|--|--|--|
| Business   | Customer             | Market               | Partnership  |  |  |
|            | potency              | Potency              | _  |  |  |
| Non-cash   | Community            | Community            | Ministry of Social Affairs                                   |  |  |
| Food Aid   | around the           | around the           |  |  |  |
|            | location             | location             |  |  |  |
| e-commerce | Community            | Community            | Ministry of Social Affairs                                   |  |  |
|            | around the           | around the           | HIMBARA  |  |  |
|            | location             | location             | Logistic Agency  |  |  |
|            |                      |                      | Other Supplier   |  |  |
| Waste Bank | Community around the | Community around the | - Bandung City Government to realize the vision and mission. |  |  |
|            | location             | location             | - Partnership with West Java Province Social                 |  |  |
|            |                      |                      | Service.   |  |  |
|            |                      |                      | - Partnership with the Bandung City Social Service           |  |  |
|            |                      |                      | - Partnership with banking                                   |  |  |
|            |                      |                      | - Using Electronic Data Capture (EDC)                        |  |  |
|            |                      |                      | - Partnership with distributors                              |  |  |
|            |                      |                      | - Partnership with Cooperatives                              |  |  |
|            |                      |                      | - Partnership with Social Assistance (PKH                    |  |  |
|            |                      |                      | companion, TKSK and other assistants.                        |  |  |

Source: FGD 2018.

Saving rubbish in a waste bank provides financial benefits for additional money for e-warong, KPM and the surrounding community can exchange garbage or unused items at home to the garbage bank, and can reap additional rupiah bags while maintaining cleanliness environment. Each type of waste must be sorted based on categories such as plastic, paper, metal, cans, and so on. Furthermore, the e-warong performer as a waste bank officer will record the results of the garbage exchange at a fixed price type of waste. The following is an illustration of the price of waste based on its category.

3.3.1. Paper. Paper is a printed material made from trees, saving more paper means that the community can participate in preserving the environment and reducing tree felling in the forest. HVS

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paper is priced at Rp 1,000 per kg; white notebook paper Rp. 800 per kg; and used newspapers or opaque LKS Rp 850 per kg.

**Table 4.** List of waste paper prices.

| No | Type of Waste Paper                            | Price/Kg        |
|----|--|-----------------|
| 1  | HVS  | IDR. 1,000,-/Kg |
| 2  | Fill in a white notebook, white print book     | IDR. 1,000,-/Kg |
| 3  | Fill in a colored notebook, color printed book | IDR. 800,-/Kg   |
| 4  | Book Covers, Magazines, colored cardboard      | IDR. 500,-/Kg   |
| 5  | Egg container, beverage packaging box (ex:     | IDR. 300,-/Kg   |
|    | milk, tea, etc.)                               |                 |
| 6  | Newspaper (LKS, Blurred)                       | IDR. 850,-/Kg   |
| 7  | Good Newspaper (reading)                       | IDR. 1,000,-/Kg |
| 8  | Brown carton / cardboard                       | IDR. 1,200,-/Kg |

Source: Daun Kapas Waste Bank, 2019.

3.3.2. Plastic bottles. The price range for types of waste from used plastic bottles for beverage packaging or plastic mineral glass starts from Rp. 1,000 per kg. Details on the list price of plastic bottle bins, as follows:

**Table 5.** List of plastic bottle bins.

| No | Type of Waste Bottle                      | Price/Kg        |
|----|---|-----------------|
| 1  | Clean Plastic Bottles                     | IDR. 2,000,-/Kg |
| 2  | Dirty Plastic Bottles                     | IDR. 1,000,-/Kg |
| 3  | Clean Plastic Mineral Glass               | IDR. 3,000,-/Kg |
| 4  | Dirty Plastic Mineral Glass               | IDR. 1,000,-/Kg |
| 5  | Plastic bottles (shampoo, soap, handbody) | IDR. 850,-/Kg   |

Source: Daun Kapas Waste Bank, 2019.

- 3.3.3. Galon/Derigen. Gallon or derigen made of thicker plastic material. Generally, to store liquid products that may not be contaminated with other items, which fall into the category of gallon or derigen packaging types such as used cooking oil packaging, engine lubricant liquid packaging, fuel derigen, and others. The price of gallon or derigen waste set by the Daun Kapas garbage bank is Rp 2,000 per kilogram.
- 3.3.4. Bucket/black flower pot/paralon. Types of rubbish such as buckets or flower pots are black and paralies are usually abandoned goods in warehouses because they can no longer be used to collect water or plant flowers. The price of this type of waste is Rp 500 per kilogram.
- 3.3.5. Cans. Among other types of waste, the can category is the most expensive type of waste to be exchanged. Canned drinks are valued at Rp. 8,000 per kg. Meanwhile, hard cans from milk packaging, mosquito spray, etc. are priced at Rp. 1,000 per kg.

Table 6. List of plastic bottle bins.

| No | Type of Waste Bins                               | Price/Kg         |
|----|--|------------------|
| 1  | Beverage cans                                    | IDR. 8,000,-/ Kg |
| 2  | Hard cans (ex; milk, cakes, mosquito spray etc.) | IDR. 1,000,-/ Kg |

Source: Daun Kapas Waste Bank, 2019.

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#### 4. Conclusion

The development of retail businesses and the use of BiSA cards is still very low, and e-warong is only active during the distribution of Non-Cash Food Aid, so many e-warong are no longer in operation. Partnership with banks incorporated in HIMBARA is still not optimally utilized, through this e-warong facility, it benefits from being able to start a business online and compete with other agents. Business development through this garbage bank can be synergized with KUBE e-warong activities with all available facilities, because the benefits obtained by savers are not only in the form of money, but in the form of staple foods such as sugar, soap, oil and rice. Business development considerations through a waste bank are: 1) The cost of operating a waste bank that is relatively inexpensive, only requires space for temporary garbage storage, 2) garbage scales, 3) Pasundan University already has a "Daun Kapas" waste bank managed by the Department of Environmental Engineering, so that the creativity of research results can have economic value and become a superior research university.

The implementation of e-warong in the development of retail businesses and the use of BiSA cards was accompanied by social assistants, namely PKH assistants and the District Social Workers (TKSK). They are actively involved in the success of the Government's programs, especially those from the Ministry of Social Affairs. PKH facilitators play more roles as brokers, mediators, educators and facilitators compared to TKSK in assisting the social and economic empowerment of KUBE e-warong, this is partly due to the initial formation of PKH under the supervision of PKH facilitators, so that assistance is more intensively carried out by assistants PKH, while TKSK is more focused on organizing the distribution of Non-Cash Food Assistance (BPNT) as well as fostering business development towards KUBE. PKH Supervisor also has a duty as an agent of change that can help KUBE e-warong business actors in developing their business, so that they not only get income from BPNT, but are expected to develop other types of businesses, and direct e-warong to be able to use Electronic Data facilities Capture (EDC) for internet-based businesses, such as electric credit sales agents, cellphone pulses, BPJS health insurance payments and other online business services. The ability of PKH companions to play a role in assisting KUBE e-warong in terms of business management and entrepreneurship must still be improved so that KUBE e-warong can achieve social and economic empowerment for better welfare. The recommendation as followed:

- The implementation of e-warong in the development of retail businesses and the use of BiSA cards was accompanied by social assistants, namely PKH assistants and the District Social Workers (TKSK). They are actively involved in the success of the Government's programs, especially those from the Ministry of Social Affairs [9]. While the tasks of the TKSK are as follows;
- Conducting social mapping in the form of PMKS and PSKS data collection and/or other data and information needed in the implementation of social welfare;
- Implementing and/or assisting the implementation of social welfare assigned by the Ministry of Social Affairs, provincial social services/agencies, district/city social services/agencies, and sub-districts:
- To coordinate with PSKS and other social welfare human resources in the implementation of social welfare:
- Synergizing, integrating, and synchronizing with the sub-district head and/or the organizational apparatus below it between the social welfare organizer and the administration of public tasks and/or community empowerment at the sub-district level;
- Conducting outreach activities and social guidance both on their own initiative and on assignments from various parties; and
- Developing community social participation and networking with various parties in the implementation of social welfare.

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