

## **SOCIAL CAPITAL DEVELOPMENT IN “CIBER” WASTE BANK MANAGEMENT**

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### ***Abstract***

*This study aims to describe the process of developing social capital that occurs in the CIBER Waste Bank. This study uses a qualitative approach with a descriptive type of research. Data collection was carried out by conducting in-depth interviews with 7 informants consisting waste bank manager, waste bank members as well as branch, waste supplier, and waste buyer. The informants were selected using non-probability sampling method through purposive sampling technique. Data analysis is done by categorizing data based on the similarity of themes or concepts through coding for each existing concept. The results of the study indicate that the development of social capital at the CIBER waste bank begins with opening initial contacts to coordinate, fulfill the requirements for cooperation, conduct socialization and direct invitation toward residents, as well as carry out previous joint activities. For efforts to develop social capital that has been formed, CIBER's strategy is to ensure a smooth payment process, meet operational needs in the field, share assistance, ensure a smooth waste transportation process, share information, ensure that waste sales run regularly, meet the volume of waste sales in large quantities, and ensure the quality of the waste being sold.*

### ***Keywords:***

*Social Capital; Community Based Waste Management; Waste Bank.*

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## INTRODUCTION

As the center of government and business in Indonesia, DKI Jakarta Province cannot be separated from the waste problem. With a population of 10 million people (the second most populous city in the world), Jakarta produces a very large volume of waste as well. Throughout 2019, the average amount of waste that entered the Bantar Gebang Integrated Waste Disposal Site (TPST) was 6,700 tons per day, with the largest contributor coming from the East Jakarta city area of 21% (Nisa, 2020).

However, currently, the large volume of waste generated by the residents of DKI Jakarta is not matched by proper TPST conditions. As a final processing site (TPA) for waste from DKI Jakarta, the Bantar Gebang TPST is already in an urgent status related to its waste capacity. According to the Thousand Islands Environmental Agency, 2018 data shows that the capacity of Bantar Gebang has been filled with 39 million tons, or 80 percent of the maximum capacity of 49 million tons. This means that the Bantar Gebang TPST is predicted to experience over-capacity in 2021 (Kusuma, 2019).

Regarding sources of waste, 2018 data shows that every day there are 5,000 tons, or about 68% of the total waste in DKI Jakarta, which comes from household waste (DKI Jakarta Environmental Agency, 2019). This means that community participation in waste management is very important in order to reduce the amount of waste generated at the source. This is in accordance with the objective of the existing waste management policy, namely to build a paradigm of reducing waste at the source, with a community-based approach.

Waste management that does not work properly will affect social welfare. According to Midgley (1995), the condition of social welfare consists of three elements, namely the extent to which "social problems are managed, needs are met, and opportunities for advancement are provided." (social problems can be managed, needs can be met, opportunities for development can be maximized). According to the definition above, Midgley defines social welfare as a condition that cannot be separated from the 3 elements that are related and influence each other.

Basically, community-based waste management has several important components, namely full participation from the community, being systematic, and supporting independence. The community as a producer of waste at the household level needs to ensure that there is treatment in the form of reducing and handling waste, one of which is by sorting waste according to its type.

One form of community-based waste management that has been running so far is the waste bank activity. The waste bank is an approach to promote the practice of sorting waste by households, while maximizing the economic value of certain types of waste. The more waste banks there are, it is hoped that more people will practice sorting waste at home, so that ultimately it can reduce the amount of waste that goes to the TPA.

In DKI Jakarta, community participation in the waste bank program is regulated through several policies, one of which is the DKI Jakarta Governor's Instruction No. 157 of 2016 concerning the Guidance and Development of Waste Banks. The policy stipulates that the community needs to form 1 Waste Bank in each RW (Rukun Warga). Data in 2017 shows that DKI Jakarta

has 500 waste banks, and increased to 1,467 waste banks in 2019 and 1,600 waste banks in mid-2020. However, this is still far from the number of RWs in Jakarta, which are 2,700 RWs (La Halufi, 2020).

The increasing number of waste banks formed by the people of DKI Jakarta from year to year is a positive thing in order to fulfill the waste reduction target. However, this effort encountered problems in terms of sustainability. There are quite a number of waste banks which, over time, eventually changed their status to inactive, after initially being established by the community. For example, in West Jakarta City, there are 117 waste banks that are no longer active from the original 778 units (Dian, 2018). If the problem of sustainability of the waste bank is not well thought out, then waste management in Jakarta in particular, and in Indonesia in general, will have the potential to cause very serious problems both in terms of the environment and social welfare.

In order to run the program independently and sustainably, the community must be able to maximize the resources that exist in the community itself, or in other words, community assets. In the context of the waste bank as a form of community-based waste management, the community asset that plays an important role is social capital.

Coleman (1990) defines social capital according to its function (defined by its function). In other words, social capital is not a single entity, but a variety of different entities with two characteristics in common: it consists of several aspects of the social structure, and facilitates certain actions of the various individuals within that structure.

According to Coleman (1990), social capital is an inseparable part of the social

structure, and has a productive function because it triggers actions to achieve certain goals. That is, social capital can encourage individuals to get involved and play a role when it brings benefits to themselves. This impulse will then be closely related to the sustainability of social relations within the existing social structure.

Social capital is closely related in order to support social interaction between individuals or groups. Coleman (1990) explains that there are at least 5 things that support the occurrence of social relationships that can form useful capital resources for individuals. The five things are obligations and expectations, information potential, norms and effective sanctions, authority relations, and intentional and appropriable organizations. social organizations).

Obligations and expectations refer to a form of reciprocal interaction, which usually arises when one person helps another, so that the person expects some kind of return in the future, or the person being helped feels obligated to help in turn. Related to this aspect of social capital, Coleman (1990) sees that there are 2 important elements in this form of social capital, namely the level of trustworthiness and the actual extent of obligations.

Coleman's explanation of obligations and expectations is also in line with that conveyed by Castle (2002) when discussing factors that can facilitate intergroup relationships (intergroup) as well as norms that play a role in relationships between members within the group (intragroup). According to Castle, an important stage in the formation of social capital is the recognition of need. Recognition of these needs will encourage inter-group relations, where recognition

depends on understanding the aspirations of individuals and the group as a whole.

Information opportunities are an important element of social capital because the information contained in a social relationship/interaction can be the basis for facilitating an action. That is, the social relationship is also a valuable thing in order to facilitate the exchange of information (Coleman, 1990).

Norms and sanctions that function effectively will form a strong social capital. Related to this, Coleman (1990) mentions that there are at least several types of norms, including prescriptive norms which contain provisions to promote the public interest; norms in the form of social support, status, honor and respect that function for collective life and mutual progress; norms that encourage commitment to carrying out tasks; internalized norms (internalized); and external norms.

An authority relationship is a form of relationship that arises when one person gives the right of control over certain actions to another party. This form usually occurs when social capital is needed by a party to solve an existing problem (Coleman, 1990).

Intentional or tailored organization, refers to the elements of social relations that arise when an organization that has certain goals, can also be used to fulfill other goals according to the agreement of the individuals in it. Regarding the organization, Coleman also stated that social organization is social capital that can facilitate the achievement of goals. That is, with the existence of social capital will be able to meet the achievement of goals that can not be achieved if the capital is not available (Coleman, 1990).

To see more about the topic of social capital and its relation to waste management,

there are a number of previous studies in various places in Indonesia that discuss the theme of social capital and community-based waste management.

Previous research related to community-based waste management has discussed a lot about community participation, such as that conducted by Juniarta, Antara, & Sudarma (2019), Tanuwijaya (2016), Suyanto, Soetarto, Sumardjo, & Hardjonidjojo (2015), Sulistiyorini, Darwis, & Gutama (2015), Koesrimardiyati (2011), Ramadhanti, (2020), Affandy, Isnaini, & Yulianti 2015; Putra & Fajarwati (2015), and Setyaningrum (2015). In addition, there are also many studies that have discussed community-based waste management in terms of the implementation process such as those carried out by Setiadi (2015), Suntari, Pirngadi, and Syarifudin (2018), Tyas, Harsasto, & Astrika (2013), Sugiarti & Aliyah ( 2015), Krisnandar (2013), Kurnia, Khikmah, & Farida (2015), and Ramandei (2020). And another aspect that has also been studied a lot from community-based waste management is in terms of community empowerment (Suryatmaja, Martiningsih, & Nada, 2017; Noorkamilah, 2005; Saleh, 2016; Menggala, 2015; Shonah, 2013; and Mantovani & Maesaroh, 2018 ).

While previous research on social capital and its relationship to waste management in general has discussed the influence of social capital (Damai T., Kusumastuti, & Andini, 2017) and also forms of social capital (Syahli & Sekarningrum, 2017; Buswijaya & Asriwandari, 2019 ; Amalia, 2020; and Tisnanta, Wahab, & Setyawan, 2014).

From the previous research, it can be concluded that the theme of community-based waste management generally discusses aspects

of community participation, implementation, and community empowerment. As for the theme of social capital related to waste management, there are two topics that have been discussed so far, namely the influence of social capital, and also the forms of social capital.

Based on the explanation of the previous research above, it appears that no research has specifically discussed how the process of developing social capital in community-based waste management is. This discussion is important to research because it will relate to the sustainability of the community-based waste management activities themselves. Referring to Coleman (1990), to be able to function productively, social capital must support the occurrence of mutually beneficial social relations between actors. So that to be able to continue to be productive, a consistent process of social capital development is needed by the actors who play a role in the waste bank, so that social capital can be maintained and sustainable. Therefore, it is very important to see how the process of developing social capital relates to waste management.

In a community, social capital has a great influence on handling social problems, ranging from poverty to other social problems related to community welfare (Suharna, 2017). However, social capital is a form of capital that will depreciate over time if it is not renewed (Coleman 1990), and the rate of depreciation of social capital is unpredictable (Adler & Kwon, 2002). Therefore, it is very important for efforts to develop social capital in society, so that social relations that have been formed can survive or even get stronger and can overcome problems in society.

In relation to the process of developing social capital, Coleman also explains several factors that can create and maintain social capital. Coleman (1990) uses the term closure, to explain how social structures can facilitate the development of social capital effectively. Some of the principles of closure are that all relationships in the social structure can facilitate the formation of social capital, when these social relationships provide mutual and balanced benefits. In this structure, social capital can be developed if the actors both have a broad partnership network, where the social network is ultimately connected to each other to form a closed network.

Social capital can also be developed through the stability of the social structure. In the context of the organization, this stability can be seen from the existence of elements in the form of certain positions as part of the social structure. With these elements, a group or organization has relatively better stability than joining certain individual elements (Coleman, 1990).

It can be seen that apart from the individual level, the development of social capital can also be carried out at a wider level, including the community and organizational levels. In this broad context, what is the basis of the development of social capital is how the social structure can be in a stable and strong condition. Therefore, the development of social capital referred to in this study is how a social structure for waste management is built by the actors who play a role in it, namely the waste bank.

In addition, actors need to fulfill several things that underlie good social relations, including obligations and expectations, information opportunities, norms, and social organization. In other words, how can a waste

bank maintain and develop social capital for all its partners, both partners from the waste supplier side, and from the waste buyer side according to the basics of these social relationships.

CIBER is the first waste bank in DKI Jakarta to be a pilot for an integrated waste management location, in 2017. Since the pilot activity, the CIBER Waste Bank has been operating independently for the last 4 years without being accompanied by external institutions (2017-2021). CIBER Waste Bank has advantages in terms of partnership networks, where they have business partners from outside the local urban village area as waste suppliers, as well as waste buyers. As an extension to assist customers who are located quite far away, the CIBER Waste Bank has a unit/branch at the neighborhood level (RT) which is managed by one of their customers. The social relationships that make up the CIBER Waste Bank partnership network can be seen in Figure 1 below.

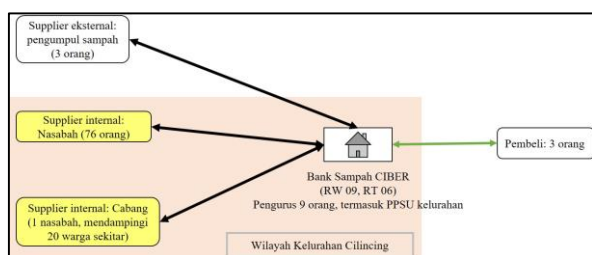


Figure 1: Social relations between the CIBER Waste Bank and its partners regarding waste management

From the description and Figure 1 above, it can be seen that the CIBER waste bank has social relations with various stakeholders, both internal and external to the community. This relationship then affects the sustainability of the waste bank for 4 years, without assistance from other parties. This study aims to describe the process of

developing social capital in the "CIBER" Waste Bank, Cilincing sub-district, North Jakarta.

## METHOD

This research can provide an overview of how the process of developing social capital in the "CIBER" Waste Bank. Based on this, this research uses a qualitative approach. Alston & Bowles (2003) explains that qualitative research starts from specific experiences or observations, and then builds theories from patterns that emerge from these observations. Qualitative research can also be used to understand the experiences of others, as well as to interpret social phenomena that occur.

According to Neuman (2014), qualitative research generally uses general ideas, themes, or concepts to generalize concepts. Data analysis is done by categorizing data based on similar themes or concepts, where at this stage the process of developing new concepts, formulating conceptual definitions, or seeing the relationship between concepts can occur. This process cannot be separated from coding in each category of concepts produced.

To describe in detail how the process of developing social capital is, this research uses a descriptive type of research. Data collection was carried out in June-July 2021 through in-depth interviews. The research was conducted at the CIBER Waste Bank, Cilincing Village, and the informant selection technique used the non-probability sampling method, with a purposive sampling technique. In general, the criteria for informants in this study are people who are considered to have a strong relevance and relationship with the CIBER waste bank in Cilincing Village. These criteria include those who know the operational details of the CIBER

waste bank and those who are involved or become partners of the CIBER waste bank. Based on these criteria, the parties who became informants of this study were 7 people consisting of 1 CIBER waste bank manager, 2 external suppliers, 1 customer who is also a CIBER BS branch, 2 waste bank customers, and 1 person junk buyers.

## RESULT AND DISCUSSION

A waste bank is a facility for managing waste with the 3R principle (reduce, reuse, recycle), as a means of education, behavior change in waste management, and the implementation of a Circular Economy, which is formed and managed by the community, business entities, and/or local government (Permen LHK Number 14 of 2021). Waste bank administrators need to collaborate with several related parties so that waste bank operations can run smoothly, both collecting waste from customers, and selling waste to waste buyers.

The CIBER Waste Bank has social relationships with its waste suppliers, both external suppliers (business partners from outside the village), and internal suppliers (waste bank customers). Likewise, to maintain the smooth sale of managed waste, the CIBER waste bank also has a social relationship with the buyers of their waste.

In this discussion, the process of developing social capital at the CIBER waste bank will be seen in 2 stages: the initial stage when social capital was formed, and the stage of developing social capital itself. The discussion in each stage will look at the relationship of CIBER's waste bank with relevant stakeholders, namely external suppliers (waste collectors), internal suppliers (waste bank customers), and waste buyers.

1. The initial stage of social capital formation

The beginning of the formation of social capital in the CIBER waste bank is described through the process of creating a relationship between the CIBER waste bank and its stakeholders. The social capital that was formed then facilitated both parties to carry out mutually beneficial cooperation. This is in accordance with Coleman's (1990) explanation where social capital is in interpersonal relationships, and social capital is created through changes in these social relationships that facilitate action.

The formation of social capital between the CIBER waste bank and external suppliers begins with opening initial contacts for coordination. The coordination carried out mainly discussed details regarding the transaction agreement, namely in the form of price negotiations to get the best price.

*"Go down to the field...Meet...negotiate.... Where's the place. For example, how much is this, come on.. Because, right, sometimes they already have a boss, like that. Sometimes they divide the goods in two, this boss is one, the boss is Ciber one. It's okay, the important thing is that we have goods sent. Every week routine..." (Management, T, 11 June)*

*The initial coordination for price negotiations was also conveyed by the two suppliers who said the following:*

*"So, at that time, I was informed by people... then at that time, yes, the distance between my stall and Mrs. Titin, yes, was a bit fast. So, I am interested in going to Mrs. Titin. At that time, it was also garbage and goods, the price was right... So, me, Mrs. Titin and I, yes, until now. That's it." (Supplier, F, June 14)*

*"Yes, the name is, right, sometimes it's from a friend, right? 'Try that'... Well,*

*coincidentally, I also sent it once, didn't I. I asked, 'how is it, ma'am, here's the bucket'... 'Yes, if the price is cheap, it's okay'... Finally, it took a long time, yes, it's finally arrived now..'(Supplier, H, 14 June)*

*The same thing also happened between CIBER and the waste buyer, which started with the initial contact opening stage. However, what is different is that for buyers, further coordination is carried out by conducting surveys by buyers to CIBER.*

*"I called the phone number. Then after being called, we will be surveyed first. The person surveyed the waste bank first...(Management, T, 11 June)*

*In addition to opening initial contacts to coordinate, the CIBER waste bank also fulfills the requirements with its stakeholders to continue cooperation. For external suppliers, this requirement is in the form of a down payment.*

*"We also have to be able to fulfill this... DP, later every time we send a piece, money goes to pick up trash... DP first before there are goods... If we don't have a down payment, we don't get the goods, the supplier doesn't want..." (Management, T, 2 & June 11)*

*As for waste buyers, the agreement is in the form of a minimum number of goods that can be sold by CIBER*

*"...Tell me the items that can be taken are at least three quintals or three hundred kg at a time."(Management, T, June 11)*

*The initial process of social capital formation between the CIBER waste bank and external suppliers and buyers is in line with the form of social capital presented by Coleman, namely obligations and expectations (Obligation and Expectation). About this, Coleman (1990: 306) explains that an*

*important element of this form of social capital is the level of trustworthiness, which means that the obligation must be fulfilled. Another element is the extent to which these obligations are owned by the parties. These two elements are reflected in the initial formation process between the CIBER waste bank and external suppliers, namely by the existence of points of agreement that must be met by both parties to be able to start cooperation. The agreement is in the form of the type of goods received, the price, the intensity of delivery, and also regarding the down payment.*

*This situation is also in line with what was conveyed by Castle (2009: 344) regarding the factors that can facilitate the creation of relationships between groups. Recognition of the needs of each party is an important factor in the formation of social capital. This is illustrated in the initial process of forming social capital between the CIBER waste bank and external suppliers, where in the coordination and negotiations carried out have discussed the needs of each party to cooperate. These include the need for the delivery of certain goods belonging to suppliers to CIBER, the intensity of delivery (every 2 weeks), and also the needs of suppliers in the form of an advance for each shipment. These needs are discussed and acknowledged by both parties, so that social capital can be formed which is indicated by the cooperation that occurs.*

*Another thing that shows the initial process of creating social capital between CIBER and its buyers also appears through the activities that have been carried out together before. As stated by CIBER administrators and buyers:*

*"He (the buyer) came, yes, I want to make it, Ma'am, application program, yes," (Management, T, 11 June)*



*“So, I made an application, a Market place for trash...At that time I tested it with Ciber... So, Ciber took the trash. For example, your house is in RT 8, Gang 12, later if there is garbage, it will be uploaded to the application, then we will pick it up and we will pay for it, and collect it at CIBER. But, while walking, we meet obstacles and others, yes. Finally, while going to Ciber just to collect trash... While walking, it took a long time, yes, Mrs. Titin became her own stall. So, in the end, I just took the raw materials. But it doesn't run my app.”* (Buyer, D, June 14)

*The buyer explained that initially, social capital was formed for the purpose of developing applications regarding waste, where CIBER acted as the location for the trial. But in the end, the interest of the collaboration turned into CIBER as a source of waste raw materials. This is in line with Coleman's definition of social capital, namely social capital is determined by its function, where the function is the value of aspects of social structure for actors, which can be used by actors as resources to realize their interests (Coleman, 1990). By identifying the function of certain aspects of the social structure, social capital can be used by actors to get different results according to their interests. In the context of CIBER, where previously social capital had been formed between CIBER and buyers, now it can be a resource for different interests, namely as a source of waste seller stalls.*

*For internal suppliers, the initial stage of social capital formation carried out by the CIBER waste bank is by socializing and inviting residents directly to join as waste bank customers, as conveyed by the waste bank management:*

*“It also goes to the residents, also educates, socializes...”* (Management, T, July 1)

*This was also conveyed by customers, that at first the management carried out socialization and also invited them directly to participate in waste bank activities:*

*“...I met him at the RW office...he said 'where do you want to go with that garbage', said Mrs. Titin, just collect it, but no one will pick it up, it will be weighed every year...I thought about it first, really. But, it takes a long time to look at people, why, yes, that's the way it is, yes. There are benefits too, I say so...”* (Customer, M, 15 June)

*“...Titin's mother who came, was offered “how about it, the garbage is removed, right, it's processed again...but the money won't be paid right away, so it's for savings”...Instead of throwing the trash away, right, if it's thrown away, right, is it thrown away, or where, right? most of it, wasted and did not decompose. This mother, right, really wants to recycle it so it doesn't pollute the environment.. So, it's more focused on that...”* (Customer, J, 15 June)

*The CIBER waste bank has 1 customer who was 'appointed' by the management to become a branch in one RT which is quite far from where the waste bank is located. This was stated by one of the informants, as follows:*

*“Before, I started (sorting garbage). Then I often met at the RW office with Mbak Titin, and then she asked me... 'Well, Mrs. Ativah, just recruit here, like this, like this... I'll send it to Ciber later... I'll take it in a few days, or weeks' like that...”*

*(Customer and branch, A, 11 June)*

*The customer explained that at first he had already practiced sorting waste at his home, but had no relationship with CIBER. With the invitation from the management of the CIBER*

waste bank, at this time the customer is also an extension of the CIBER waste bank to collect waste in the surrounding environment. This is in line with one form of social capital, namely authority relations, where this social capital arises when one person transfers control over certain actions to another person. (Coleman, 1990: 311). In this case, the management of the CIBER waste bank delegates control to the customer to be able to recruit other customers in the vicinity, then collect the waste and deposit it into the CIBER waste bank on a regular basis. Thus, the customer acts as a 'branch' for the CIBER waste bank located elsewhere in the community.

## 2. Development Stage of Social Capital

Like human capital and physical capital, social capital can depreciate if it is not renewed (Coleman 1990), and the rate of depreciation is unpredictable (Adler & Kwon, 2002). Therefore, it is very important to maintain and develop social capital, so that social relations can survive or even get stronger. Several factors that must exist in social relations to be able to form a useful source of capital for individuals include obligations and expectations, information, and norms (Coleman, 1990).

The process of developing social capital at the CIBER waste bank is illustrated by the efforts made by the management to its stakeholders to maintain and strengthen the relationships that have been established so far to form a strong and sustainable social structure to date.

Smooth payment processing is important for the parties involved in buying and selling transactions, including at the waste bank. This is one of CIBER's waste bank efforts in order to maintain and develop social capital for external

suppliers, namely by ensuring smooth payments.

"There are items that pay cash directly. There's never been any debts... So, the goods will be sent directly in cash. The most late transfer via banking... For payment, we are also good... Anyway, when he sends the goods, we have to match. How much, how much do we have to pay... don't let it go 'uh, we haven't paid anything yet'... (Management, T, 2, 6, 11 June)

The two external suppliers who were informants also conveyed the same thing, that smoothness, including timeliness of payments, is what makes them want to continue to cooperate with the CIBER waste bank.

"..if all payments are committed, it's smooth ... payments are smooth.. committed.. once you weigh the goods, you will be paid in cash. You can cash, you can also transfer."(supplier, P, 14 June)

"Before you met Mrs. Titin... the payments were sometimes too late... (supplier, H, June 14)

The CIBER waste bank also develops social capital for external suppliers by meeting operational needs in the field. As stated by the informant:

*"When I need it, it's always there. If, for example, I need money, so he is quick when contacted... wants to ask for cash receipts for my travel expenses, let's say I don't have money anymore... (supplier, P, June 14)*

*"Alhamdulillah, Ciber can understand that. For example, if I ask for money for food too, ask for a petrol loan too. For example, if I get an item, for example, I can sell the item for five hundred. Yes, I will pay for two hundred. Later, I will cut it, well, the rest will be used as money again. I see. Yes, we are aware of each other. (supplier, H, June 14)*

*The CIBER waste bank also occasionally shares assistance, as stated by one supplier*

*"Sometimes I am also called... later I will be given what kind of gift from CIBER, I see... maybe it's sustenance, huh. Like Mrs. Titin, maybe there is sustenance like that, right... Share that sustenance..." (Supplier, H, June 14)*

*There are differences in the way of developing social capital by CIBER waste bank to external suppliers and internal suppliers. For internal suppliers (customers), CIBER's efforts to develop social capital are to ensure the smooth process of transporting waste from customers' homes.*

*"If you get a customer, the garbage is ready to be picked up, we have to pick it up..." (Management, T, 2 and 11 June)*

*"If I have a lot of trash, I just need to call him to pick it up..." (Branch, A, 11 June)*

*"...if there's a lot of trash, we usually just call, then they come, when can they be picked up, that's...they help pick it up too...the response is good..." (Customer, J, 15 June)*

*From the customer's explanation, it can be seen that on the one hand, one of the efforts made by the management of the CIBER waste bank to maintain customer trust is to ensure the ease and smoothness of the waste transportation process at the customer's home. And on the other hand, residents also need to obey the agreement that applies when they become customers of a waste bank, which is to sort waste in each house, which will be transported by the management as savings. That is, there is a rule that applies, and continues to be carried out consistently and effectively by all parties. This situation is in line with what is described by Coleman, where effective norms will produce strong social capital. Prescriptive norms are norms in which*

*a person gives up self-interest to act in the interests of the collectivity (Coleman, 1990). In the context of a waste bank, the collective interest in question is related to the cleanliness of the local environment.*

*Another effort made by CIBER in developing social capital for waste bank customers is to share information about waste bank activities.*

*"...That's how it is, if there's anything, I'll definitely be invited, so I'll definitely know what's going on..." (Branch, A, 11 June)*

*"Sometimes there are invitations for what kind of counseling... usually Mrs. Titin calls me, 'Mum, will it be Friday or what day will you come, will you have this'..." (Customer, J, June 15)*

*Then, if there is anything, Mrs. Titin likes to talk... likes to tell customers when there is an event.. (customer, M, June 15)*

*From the statement above, it can be seen that customers view the management of the CIBER waste bank as actively sharing information with them. Information is shared through a routine communication process, in order to maintain the relationship that has been established so far. This is in accordance with Coleman's (1990) explanation that the potential for information inherent in social relations is one of the factors that strengthens social capital. In this context, with information from the management, customers can find out the latest developments regarding waste banks, including other activities held by waste banks. For waste buyers, efforts made by CIBER waste bank to develop social capital are by ensuring that waste sales run regularly.*

*"Regular waste deposit...still supply even though the tonnage has been reduced, but, it's still running.. Every week we have to pick up, have to send..." (Administration, T, 2 and 11 June)*

*“...selling smoothly, no problems...because there are suppliers whose terms are routine, right...” (Buyer, D, June 14)*

*In addition, the social capital created between CIBER and the buyers of waste also continues to be developed by meeting the volume of sales of waste in large quantities*

*“Because according to the tonnage, yes. We've been able to do it per week for one ton, that's just how it is... we can fulfill that...” (Administration, T, 2 and 11 June)*

*In buying and selling transactions, the quality of goods is important. This is also one way for CIBER's waste bank to develop the social capital that has been formed with the buyer, namely ensuring the quality of the waste sold.*

*“Don't be dirty, sometimes there's water in the bottle. It can't be, it's a loss. If we don't have water... garbage too, don't,... tissue waste, that's not allowed... Try not to be dirty...” (administrator, T, 11 June)*

*“...Sort the goods according to our request... Yes, because maybe we are more suited to the person, by sorting the goods...” (Buyer, D, June 14)*

*Buyers stated that the goods that have been sold by CIBER have been able to meet their demands. This is in accordance with what Coleman said regarding obligations and expectations, where one of the important elements of this form of social capital is the level of obligations owned (Coleman 1990: 306). On the one hand, this element is reflected in the efforts of CIBER's waste bank to ensure that the goods (garbage) sold are of good quality, so that there is hope from CIBER that buyers will be able to commit to becoming regular buyers. On the other hand, it also makes buyers have an obligation to fulfill the expectations of CIBER. This situation has been*

*consistently met by CIBER as well as by buyers, resulting in a mutually beneficial relationship between CIBER and buyers to date.*

## CONCLUSION

Social capital is an aspect of a social structure that facilitates certain actions of individuals within that structure (Coleman, 1990). The sustainability of the social structure cannot be separated from how social capital has been continuously developed since its inception.

The waste bank CIBER has made efforts to develop social capital for related parties, both to external customers, internal customers, and to buyers.

The development of social capital in the CIBER waste bank can be seen in 2 stages, namely the initial stage of forming social capital, and the stage of developing the social capital that has already been formed.

The initial stage of social capital formation is described through the process of creating a relationship between the CIBER waste bank and its stakeholders, namely external suppliers, internal suppliers, and buyers.

1. The initial stage of the formation of social capital is due to the obligation and hope for the cooperation built between the CIBER waste bank and its stakeholders. This is also reflected in the recognition of the needs of each party, both from suppliers and buyers as well as CIBER, so as to create a mutually beneficial cooperative relationship with an agreement on price, down payment, and the minimum amount of waste purchased.

2. The initial stage of social capital formation can also be seen through the existence of an authority relationship between

CIBER management and one of its customers. With the authority given by the management, these customers can act as an extension of the management to recruit local residents to become customers of the CIBER waste bank.

3. The initial formation of social capital also occurs as a result of other activities that have been carried out together before. The relationship between the CIBER waste bank and waste buyers that had previously been formed for other purposes (application development), has now changed to become for the benefit of buying and selling waste. This shows that social capital can be used by actors to get different results according to their interests.

Furthermore, the social capital development stage that has been formed in the CIBER waste bank can be described as follows:

1. Applicable norms and mutually agreed upon between the waste bank and internal customers enable all parties involved to act in the common interest. The customer sorts the waste at home, and the management carries out the waste transportation according to the notification from the customer.

2. Information that is shared regularly by CIBER management to customers plays an important role in maintaining the relationship that has been formed. Through information from the management, customers can find out the latest developments regarding waste banks.

3. The mutually beneficial relationship between CIBER and the buyer can be seen from the obligations and expectations that both parties have been able to fulfill so far. When CIBER consistently provides goods (garbage) that are on demand, the buyer also fulfills his obligation to become a regular buyer for CIBER.

The whole process of developing social capital in the CIBER waste bank can be seen in Figure 2 below.

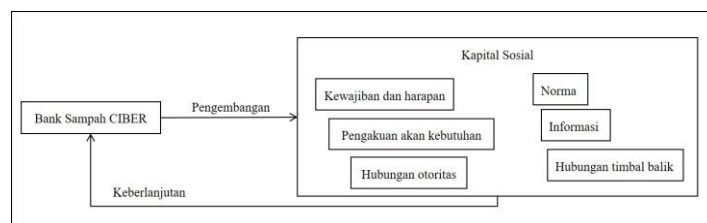


Figure 2: Social capital development scheme at the FIBER Waste Bank

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