

# *Activities of Farmer Women Groups in Utilizing Digital Communication Media in Urban Farming Activities in Bogor City*

Selly Oktarina<sup>1,2</sup>, Sumardjo<sup>3</sup>, Ninuk Purnaningsih<sup>4</sup>, Dwi Retno Hapsari<sup>5</sup>

<sup>1</sup> Doctoral Student's Development Communication Study Program Faculty of Human Ecology, Bogor Agricultural University

<sup>2</sup> Agribusiness Study Program, Faculty of Agriculture, Sriwijaya University

<sup>3, 4, 5</sup> Department of Communication and Community Development, Faculty of Human Ecology, Bogor Agricultural University



**Abstract** – Urban farming is a characteristic of land use that is narrow and intensively limited to annual crops, polyculture and business oriented. This activity was initiated as an effort to maintain food supply and improve family nutrition. Therefore, the importance of increasing and developing the knowledge of women farmers by finding information related to urban farming through the use of digital communication media. The objective of this research was to describe the activities of women farmers in urban farming activities, describe the use of digital communication media and its effects. The research method used was a case study method by conducting an in-depth analysis of five farmer women groups in Bogor city. The results showed that the activities of farmer women's groups in group activities on urban farming namely routine meetings, group garden activities, product processing, marketing, ecobrick manufacturing and training. Utilization of digital communication media by farmer women sorted by usage in finding information related to the urban farming program is Whatsapp (WA), Facebook (FB), Google, YouTube and Instagram (IG). The impact of the utilizing digital communication media on the activities of farmer women's groups on urban farming is an increase in knowledge, application of technology and towards the development of agricultural education.

**Keywords** – Farmer Women's Groups, Digital Media, Urban Farming, Yard Utilizing.

## I. INTRODUCTION

The existence of the times and technology requires farmer women to be able to change behavior that has an impact on increasing knowledge. Behavior that is able to follow the development of technology is one of them digital communication media. Along with urban farming that emerged as an effort to use limited land as an impact of increasing population, causing limited food supply. The ability to find and apply technology is very much needed in the development of urban farming as an effort to provide

food, save costs, increase production, family income and welfare (Rezai *et al.* 2016; Stolhandske and Evans 2017).

Technological developments make a big difference in the lives of all people where digital media has shifted print and electronic media in the delivery of information. The existence of this media shift also has an impact on cultural change in terms of the use of communication media, seeking information and receiving information (Imelda *et al.* 2011; Wahyono *et al.* 2019). Digital communication is a technology that provides services in the form of internet networks making it easier to communicate without

boundaries of space and time (borderless and timeless). The utilizing of digital communication media has been widely used by the community including farm women. This is related because farm women as people who have a lot to do with decision making in household affairs are required to seek information and develop their abilities to maintain stability in household food supply. Therefore, the search for information in increasing the knowledge of women farmers was obtained from various media, one of which was digital communication media (Cummings and Neil 2015). Digital communication media that can be utilized via email, mailing list and chatting both in the form of internet and social media. The results of Baruah's study (2012) stated that social media is used to share information, improve communication skills, change behavior in speaking and thinking. In addition, Prayudhi (2011) states that online media has unique characteristics that are up to date, real time and practical.

In order to maintain food security, the Government through the Agriculture Service and the Food Security Service empowers women farmers in optimizing the use of the yard, which is called urban farming. Urban farming is a characteristic of the the yard utilizing on a narrow and limited land that is done intensively on annual crops. Urban farming activities through the use of the yard carried out by women farmers as routine activities that are incorporated in the Farmers Women Group. This program has a positive impact on the economic, social and environmental side and can maintain the stability of food availability for the community. According to (Firmansyah 2018), urban farming is a form of community empowerment that impacts on behavioral changes in cultivation techniques and changes in the interactions and relations of actors, rules, values, norms and management of resources utilized.

The definition of activities according to KBBI is defined as activities or one of the work activities. According to the science of sociology, activity is defined as any form of activity in the community or social activities based on neighborly or kinship relations (Sajogjo and Sajogjo 1999). In this case, the activities of women farmers in urban farming can be done individually or together (groups).

Activities in household activities, yard utilizing and group garden activities. This research was to describe the activities of women farming groups in urban farming activities, the utilizing of digital communication media on urban farming activities and the impact of the use of digital communication media on women farming activities in urban farming activities.

## II. RESEARCH METHODS

This research was designed as a case study method and indepth interviewed of five women farmers groups in Bogor city. According to Cresswell (2010) qualitative research are methods to explore and understand the meaning that a number of individuals or groups of people ascribe to social or humanitarian problems. The farmer women groups sampled are (1) Puspasari, (2) Kentagor Mandiri, (3) Sriwijaya, (4) Mekar Saluyu and (5) Melati.

## III. RESULTS AND DISCUSSION

### A. Characteristics of Farmer Women's Groups

Farmer women's group is a collection of two or more people who interact with each other and have activities in agriculture based on familiarity and cohesiveness in working together to increase income and welfare. Bogor City has 86 Women Farmer Groups spread across six sub-districts and 68 villages. In the implementation of urban farming activities, each group of women farmers is accompanied by Field Agricultural Extension Workers where each extension worker has 5-6 target groups. Urban farming activities in Bogor city began to be promoted since the emergence of the "Indonesia Berkebun" community which was the forerunner to the growth of urban farming in Indonesia, at the end of 2011.

Characteristics are characteristics inherent in each group. The characteristics of farmer groups differ from one another, in this study the characteristics are seen based on: duration of formation, number of farmer womens group members, area of group gardens, actors and motivation. The description of the characteristics of farmer women groups can be seen in Table 1.

Table 1. Overview of characteristics of farmer women groups in Bogor City

No	Farmer womens group Names	Year formed	The number of members (person)	Group Garden area (m <sup>2</sup> )	Actors	Motivation
1.	Puspasari	2011	33	3000	Housewife,	The need for

					Retired	medicinal plants and healthy life
2.	Kentagor Mandiri	2015	35	1500	Housewife, Retired PKK cadre	Dasa guesthouse social gathering and hobby of farming
3.	Sriwijaya	2015	52	300	Housewife, PKK cadre	The need for healthy life
4.	Mekar Saluyu	2016	37	1000	Housewife, PKK cadre	Hobbies for planting, the need for healthy vegetables
5.	Melati	2017	25	300	Housewife, Retired PKK cadre	Hobbies for planting

Based on Table 1, the characteristics of farmer women's groups differ between groups which are formed gradually from 2011 to 2017 with the number of group members also different. The differences in the years formed and the number of members, generally due to the desire of the community to work together and develop after seeing the success of existing groups. The area of land cultivated is not a problem because of the many technologies that can be applied to limited land. Most of the peasant women who are members of the peasant women group are housewives, retirees and who are active in PKK cadres. Women who work also do not rule out the possibility but have the time and hobbies in terms of farming and the needs of a healthy life. According to research Ackerman *et al.* (2014); Mayasari *et al.* (2015); Sumardjo *et al.* (2016); Prasetyo *et al.* (2016); Juniawati and Hayuningtyas (2017); Othman *et al.* (2018), the factors driving the development of urban farming are economics, sociological motivation, self-actualization motivation, social, health, welfare, education.

Farmer womens group in Bogor City has many achievements even though the land utilized has less optimized citizens and public facilities. The farmer womens group achievements vary as: (1) The 2nd prize of KRPL in West Java Province in 2015 (Puspasari), (2) The 1st prize in the competition to increase the role of women towards healthy and prosperous families in 2017 (Sriwijaya), (3) The 1st prize in the Hejo herbal park in 2018 (Kentagor Mandiri), (4) The 3rd prize of Hejo herbal parks in 2018 (Mekar Saluyu), (6) The 1st Prize of PKK Competition in Bogor City in 2018 (Mekar Saluyu), (7) The 2nd prize as a comparative study place (Kentagor Mandiri), (8)

Representative of the West Java Province PKK Competition in 2019 (Mekar Saluyu).

### B. Farmer Women's Activities in the Urban Farming Program

The urban farming empowerment program in Bogor City is an activity fostered by the Department of Agriculture in collaboration with the Bogor City Food Security Department. The urban farming program began with the Sustainable Food Home Area program by utilizing unused land and land. In order to be sustainable, coaching continues to be carried out on existing and newly formed farmer women group by field agricultural extension. Initially, urban farming activists were in the form of community and then began to be developed in the Adult Farmers Group and the Women Farmers Group. Communities related to the urban farming program are "Bogor Berkebun", "Bogor Raya Hydroponic Community (Kohibora)" and "Bogor City Green Community".

Empowerment of urban farming is also done by empowering public facilities such as unused land and parks in the city of Bogor. Park empowerment can be used to enhance urban planning and can also be used as a place of recreation (Chaudhry and Tewari 2010). The city parks that have been used as urban farming are Heulang Park, Kencana Park, Sempur Park. The existence of this park can improve aesthetics and absorb existing air pollution.

Urban farming activities in Bogor City are carried out by utilizing land and vacant land by cultivating horticulture (vegetables, fruit, ornamental plants), food plants, medicinal plants, fisheries and livestock, while also promoting the use of used goods (BB). The description of commodities carried

out by KWT in the urban farming program in Bogor City is described in Table 2.

Table 2: Commodity overview of KWT in the urban farming program.

No	Komodities	Definition
1.	Vegetables	Cabbage, caisin, kale, celery, chile, chile, tomatoes, and others.
2.	Processed	Making food and drinks.
3.	Herbs	Family medicinal plants such as: red ginger, turmeric, lemongrass, ginger, galangal.
4.	The yard plants	Combined vegetables, fruit, ornamental plants and herbs.
5.	Decorative plants	Orchid flower
6.	Fruits nurseries	Fruit nurseries
7.	Vegetables and processed	Combined cultivation of vegetables and make preparations by utilizing existing vegetables
8.	Cassava and guava	The work done is a combination of planting cassava and guava

The activities carried out by farmer women's groups in urban farming activities include: regular meetings, group garden activities, marketing, ecobrick making and training explained as follows:

- (1) Routine meetings. Regular meetings of each group differ from each other according to the agreed schedule, starting from once a week, once every two weeks and only once a month. Regular meetings serve as a place for discussion, exchange ideas, give opinions and share experiences. The routine meeting discussed all aspects related to the activities of women farmers such as: meeting schedule, picket schedule, representatives participating in training, planting schedule, commodities, technology used and harvest schedule.
- (2) Group garden activities. Activities that can be done by women farmers include:
  - a. Planting and planting preparation. Planting preparation starts from land clearing and seeding. Seeding is done together at the time of the group meeting schedule at the nursery which is then continued planting.
  - b. Maintenance. Maintenance includes during seeding and planting carried out by farm women according to picket schedule. Maintenance includes watering and weeding from existing weeds.
  - c. Harvest. Harvesting is done by farm women in the group garden together. Freshly harvested vegetables are mostly sold in groups and sold to neighbors. This is done to replace operational costs as group

cash. Harvesting is carried out in the form of fresh vegetables and free of pesticides, where the orientation and lifestyle of the community towards products that are safe for consumption, highly nutritious and environmentally friendly. Along with Firmansyah's research (2018), there has been an increase in the market for organic agricultural products, so it is necessary to develop organic farming with high economic value.

- (3) Post-harvest processing and marketing. Processed products from farmer women group vary in the form of food and drinks. Food products made are moringa leaves, spinach chips, cassava chips, taro sticks and taro cakes (brownies). The beverage products are mixed with teleng flower drinks, lemongrass, ginger mokaf, mint leaves and lime juice. Product marketing is carried out during exhibitions such as during the National Krida Day which is carried out for a week in the yard of the Horticultural and Plantation Office of Bogor Regency. In addition, the Bogor City has a Farmers Market Association and the Farmers' Women's Association whose function is to foster and accommodate the production of farms or processed groups of women farmers and members to be marketed. Routine activities carried out by Aspartan and Aswatani are to take part in every exhibition conducted by Bogor city and its surroundings. Regular marketing is done every Sunday morning at Sempur Park and Heulang Park. Marketing of vegetables and processed products is done through ordering and there are also those who have special customers in the form

of souvenir shops in Bogor in the form of various processed taro like brownies and taro sticks.

- (4) Making "ecobrick". Ecobrick is an environmentally friendly brick made from plastic bottles, filled with solid waste that cannot be recycled. Ecobrick is also known as bottle brick, which is a community movement in reducing plastic waste and can be used as a brick to make tables, chairs, walls and so forth. The making of this ecobrick continues to be socialized to farmer women's groups and the surrounding community.
- (5) Training. There are quite a lot of trainings related to urban farming, both conducted by the Department of

Agriculture, the Department of Food Security, the community and bringing in resource persons. The types of training that have been attended are (1) hydroponic training with resource persons from the Greater Bogor Hydroponics Community (Kohibora), (2) training on fish processing (Sukabumi), (3) Training on local food making like traditional cakes (Distan), (4) "one day no rice" non-rice movement training (Distan), (5) the use of natural dyes namely cocovine (Distan), (6) non-wheat movement training (Distan), (7) Vegetable cultivation training (BBP2TP). An overview of the activities of women farmers in the urban farming program can be seen in Figure 1.

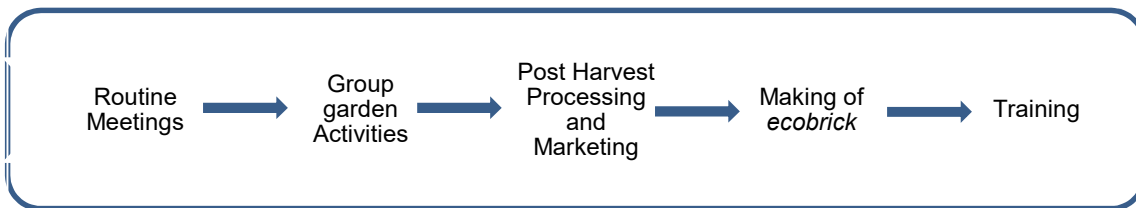


Figure 1. Activities of women farmers in urban farming activities

**(1) Commodities Planted in Farmer Women Group Gardens**

Utilization of land either yard or group can provide maximum results if done optimally both for family and shared needs. The variety of commodities planted has an impact on variations in consumption patterns and increasing

the nutritional value of the community. Commodities planted by farm women groups, both in group gardens and in the yard are quite varied. Productive use of land by planting vegetables and fruits has many positive impacts including always the availability of daily food, fresh air, saving money on spending. The types of commodities planted can be seen in Figure 2.

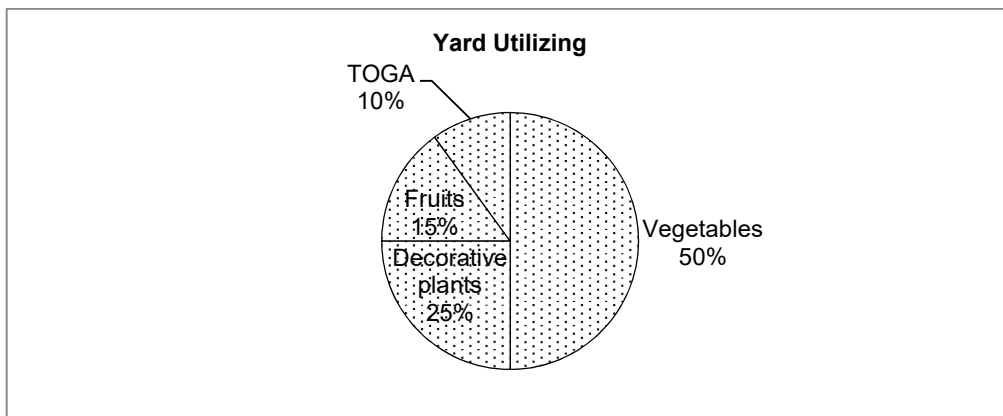


Figure 2. Utilization of farmer women group land in Bogor City

Based on Figure 2 shows that there are four types of plants that are cultivated both in group gardens and in the

yard, consisting of: vegetables, ornamental plants, fruits and family medicinal plants Along with research by Dharmawan

*et al.* (2019), five types of plants are cultivated in the utilization of the farming community is a family medicinal plant, ornamental plants, protective plants, vegetables and shade plants.

Vegetables are the dominant commodities grown by farmer women group both in group gardens and in home yards such as: chili, pakcoy, caisin, kale, oyong, binahong, leek, eggplant, tomato, cabbage, bitter melon, corn, moringa, spinach, peanuts, long beans, cassava. Ornamental plants consist of: aloe vera, orchids, waves of love, wijaya kesuma, eggs, roses, celery, Moringa. Fruits such as: guava, sapodilla, manga, melon, cucumber suri. The family medicinal plant consists of: red ginger, turmeric and lemongrass.

## (2) Adoption of Technology in the Urban Farming Program

Technology is not just equipment or physical objects but can also include ideas, methods, techniques and efforts to meet the needs and improvement of life in society (Mardikanto 2010). The success in applying technology is also influenced by how much information can be accessed which is adjusted to the availability and suitability of the information needed (Permana *et al.* 2011). An illustration of technology adoption in urban farming activities can be seen in Figure 3.

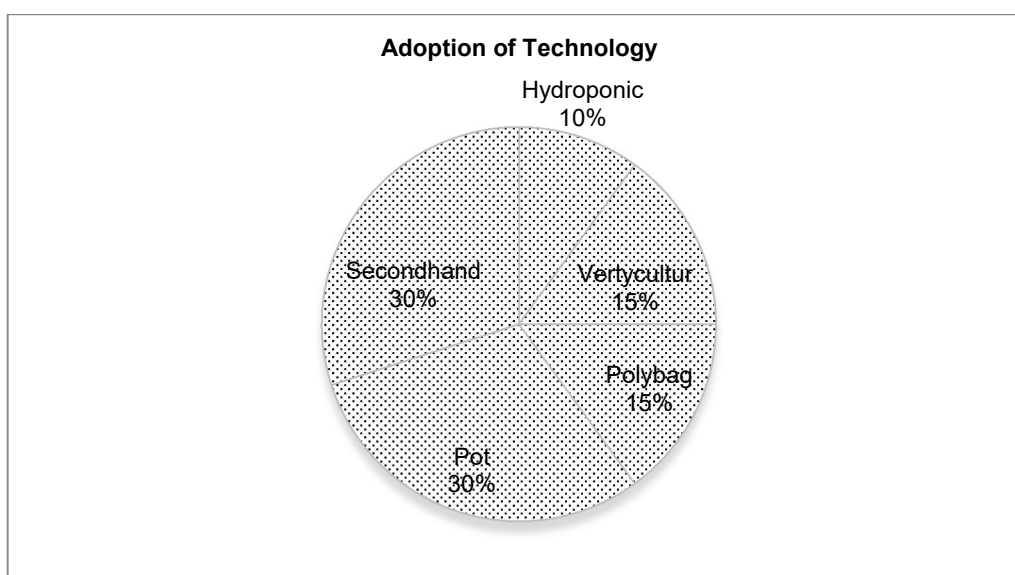


Figure 3. Adoption of technology on KWT land in Bogor City

Based on Figure 3, the adoption of used and pot technology is more dominant than hydroponics, verticulture and polybags technology. This shows that the use of waste goods and pots is more economical, efficient and easier to obtain than others. Utilization of waste goods can be: used water gutters, used water bottles, oil packaging, detergents and sweets. Washed oil packages and detergents can be used as a substitute for polybags for growing vegetables. Bottles and glasses of mineral water can also be used as a growing medium for ornamental plants that can be hung along the walls. This is related to supporting the use of waste, namely environmentally friendly activities with the application of 3R, namely reuse, reduce and recycle. Besides being able to be adopted for group gardens as well as for their own yards. Hydroponics and verticulture (hanging racks, terraced racks

and bamboo racks) and polybags are more limited and tend to be used only in the garden of farmer women's groups. Very few farm women adopt hydroponics in the yard because the price is relatively more expensive and the cost of housing tends to be high for individuals. Therefore, most hydroponics is only found in groups of farm women only.

### C. Utilization of Digital Communication Media in Urban Farming Activities

Farmers women get information related to urban farming from Field Agricultural Extension. Field Agricultural Extension is a companion that provides guidance to farmer women's groups. In addition to getting information from Field Agricultural Extension, women farmers often seek information by utilizing digital communication media.

Digital communication media is used by women farmers to look for information related to urban farming which includes: the benefits of urban farming, technology that can be applied in urban farming and commodities that are suitable for the urban farming program. This is in line with the uses and gratifications theory according to Rachmat (1999); Severin and Tankard (2011), each individual has different motives in the use of types of media based on individual needs which are more focused on what people do to the media. According to Nasrullah (2018), the basic character of the use of social media is the formation of networks and the construction of interactions between users. In this case, the use of women farmers in addition to seeking information also helps to disseminate information in groups (Pasaribu *et al.* 2015). Digital communication media that are often used are in the form of social media namely Whatsapp

(WA), Facebook (FB), Google, Youtube and Instagram (IG).

The use of all digital communication media is related to the curiosity of farmer women towards urban farming activities. Urban farming was first known and socialized by PPL who fostered and assisted women farming groups. In addition, other information was obtained during training conducted by related agencies about activities related to urban farming activities and digital communication media. Along with the opinion of Hapsari (2015) states that the role of communication media in addition to disseminating environmental concepts also convey information that aims to carry out various action programs. An illustration of the use of communication media by farmer women group in the urban farming program can be seen in Figure 4.

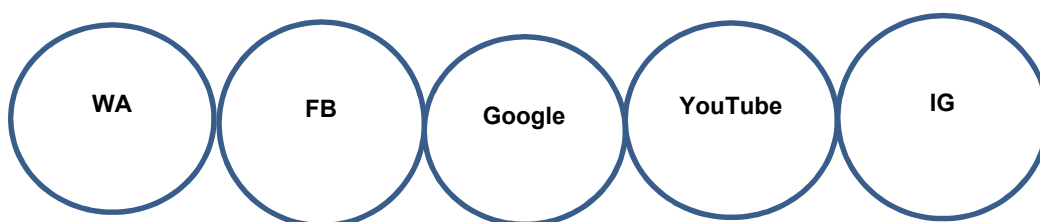


Figure 4. Utilization of digital communication media in urban farming activities

Farmer women group activities in the use of digital communication media are finding information, receiving information and disseminating information. This has an effect on the choice of digital communication media that tends to be used by women farmers. The sequence of digital communication media that plays an important role in the utilization of urban farming activities are:

(1) Whatsapp (WA), makes it easy to share information related to urban farming activities. According to Humaidi *et al.* (2020), WhatsApp has the highest ranking compared to Facebook, YouTube and Instagram in the intensity of social media utilization. The use of WA is often used in the form of WA groups making it easier to disseminate information between group members both information from PPL, group leaders and fellow members. Utilization of WA as information dissemination also receives information from other groups. The use of WA groups has been widely used in various activities, in the direction of research by Oktarina *et al.* (2019) that to facilitate communication with farmers, extension workers form groups by utilizing WA in rice farmers groups. Other information that can be shared with members such as: nursery, planting, packaging and processing. In

addition, product marketing has also begun to use the WA group as a promotional event.

- (2) Facebook (FB), is a medium used by farmer women in finding information related to urban farming, so it is easier to see posts in the form of pictures and news. The image is the main attraction so that someone becomes interested in the innovations offered. Through FB, farmer women can also post pictures and news as a form of information dissemination. According to Akpan *et al.* (2015), FB is one of the platforms to advertise products because it is more popular. Based on Nasrullah (2018), the form of interaction in FB besides commenting also by giving signs such as thumbs up "like". In addition, you can use the "wall" to reveal, tell stories and respond to situations that are sorted by month. In FB can also create community groups based on the objectives formed and can also be a closed group.
- (3) Google, is a site for finding information needed related to urban farming. Through the Google site you can get all the information you need by just entering keywords.
- (4) YouTube. information used in the form of tutorials in the use of hydroponics and other media. YouTube is a

media that displays video tutorials making it easier to practice (Kuswanti and Oktarina 2019). Therefore, YouTube is an alternative choice to copy a product that is displayed so that it is easier to emulate. According to Nasrullah (2018), through videos uploaded to YouTube not only commented on by users who deliberately visit the YouTube page but other platforms where the video is shared.

- (5) Instagram (IG), has an interesting post but the weakness of IG is internet quota which is bigger than WA and FB. The advantage of IG is that users can see what has been written and upload photos by month. Along with Pratiwi's research (2015), IG states that IG is a social media that focuses on photo sharing which is also used as a media for promotion, introduction and information sharing. In addition, research by Dharmawan *et al.* (2019) which states that IG is more widely used to market products other than FB and is more dominated by young people.

#### D. Impact of Utilization of Digital Communication Media on Urban Farming Activities

The use of digital communication media on the activities of farm women groups in urban farming activities has a very big impact, including:

- (1) Increased knowledge, insights that have become broad related to urban farming. Through digital communication media, peasant women can find information about the application of urban farming both at home and abroad so that it can be studied and adopted. The successful adoption of the technology can be spread back to other members both within the group and outside the group as innovation.
- (2) Application of technology. Adoption of technology is one of the efforts that can be made to develop activities and cultivation. Initially, women farmers only use the yard and land together with the planting media in the form of the use of pots and polybags, but by looking at technological developments through counseling and social media there has been a change. Changes that occur in the use of technology are the application of waste Goods as a form of waste management, ecobrick manufacturing and hydroponic use.
- (3) Agroedutourism, as a place for agricultural tourism which is visited by various groups. The success of farmer women group in Bogor city of received coverage from various media making it easier for the public to find information on group activities and the

existence of the farmer women group. Therefore, farmer women group began to continue to be developed as an educational destination, such as: comparative studies of various farmer women group both inside and outside Bogor city. In addition, it is also used as a place to visit school children to learn about horticultural plants, growing vegetables and making ecobricks.

#### IV. CONCLUSION

Activities of women farmers who support urban farming activities include: regular meetings, activities in group gardens, product processing and marketing, ecobrick manufacturing and training. Digital communication media that play an important role in utilizing urban farming activities are whatsapp (WA), facebook (FB), google, youtube, and instagram (IG). The impact of the use of digital communication media on the urban farming program is: increased knowledge, application of technology and the growth of group initiatives to develop agroedutourism: a place for agricultural tourism in line with increased visits from outside.

#### REFERENCES

- [1] Ackerman K, Conard M, Culligan P, Plunz R, Sutto M-P, Whittinghill L. 2014. *Sustainable Food Systems For Future Cities: The Potential Of Urban Agriculture*. New York (US).
- [2] Akpan CS, Nwankpa NN, Agu VO. 2015. Influence of Facebook Advertisement on the Buying Behaviour of Students of a Nigerian University Department of Mass Communication. *Int. J. Humanit. Soc. Sci.* 5(7):135–148.
- [3] Baruah TD. 2012. Effectiveness of Social Media as a tool of communication and its potential for technology enabled connections : A micro-level study. *Int. J. Sci. Res. Publ.* 2(5):1–10.
- [4] Bungin, HM Burhan. 2008. *Metodologi Penelitian Kualitatif*. Kencana. Jakarta.
- [5] Chaudhry P, Tewari VP. 2010. Role of public parks / gardens in attracting domestic tourists : An example from city Beautiful of India. *Tour. an Int. Multidisciplinary J. Tour.* 5(1):101–109.
- [6] Cummings C, Neil TO. 2015. *Do Digital Information And Communications Technologies Increase The Voice And Influence Of Women And Girls ? A Rapid Review Of The Evidence*.
- [7] Creswell, John W. 2010. *Research Design Pendekatan Kualitatif, Kuantitatif dan Mixed*. Yogyakarta : Pustaka Pelajar.
- [8] Dharmawan L, Firmansyah A, Susanto T. 2019.



- Komunikasi inovasi dalam pemanfaatan lahan pekarangan komunitas petani untuk mewujudkan kemandirian pangan di era digital. *J. Komun. Pembang.* 17(1):55–68.
- [9] Firmansyah A. 2018. Pemberdayaan masyarakat melalui program urban farming organik di Kabupaten Bekasi sebagai [rogram CSR PT Pertamina Tambun Field. *J. CARE J. Resolusi Konflik, CSR Dan Pemberdaya.* 3(1):1–8.
- [10] Hapsari DR. 2015. Potensi media baru dalam kampanye gerakan lingkungan. In Konferensi Nasional Komunikasi Pariwisata Dan Kewirausahaan, F. Yanuar, & H. Mony (Ed. by), Jakarta (ID): Fakultas Ilmu Komunikasi Universitas sahid, pp. 151–167.
- [11] Humaidi L, Hubeis AVS, Puspitawati H, Anwas EOM. 2020. The Improvement of Agricultural Extension Competence Based on the Social Media Utilization and Role of Extension Institutions. *Int. J. Progress. Sci. Technol.* 18(2):135–142.
- [12] Imelda N, Andayani, Lies. 2011. Analisis Kegunaan Internet Bagi Ibu Rumah Tangga Dalam Menghadapi Globalisasi Media. *BIT* 8: 1693 9166.
- [13] Juniawati, Hayuningtyas M. 2017. Urban agriculture development: a strategy to support food security. In ICsafS Conference Proceedings 2nd International Conference on Sustainable Agriculture and Food Security: A Comprehensive Approach, M. Muhaemin, Y. Hidayat, & H.A.W. Lengkey (Ed. by), Jatinangor Sumedang (ID): Universitas Padjadjaran, Indonesia, pp. 701–713.
- [14] Kuswanti A, Oktarina S. 2019. Pemanfaatan media informasi di era digital bagi kemandirian ibu rumah tangga. *Suluh Pembang. J. Ext. Dev.* 1(1):47–55.
- [15] Mayasari K, Sente U, Ammatilah CS. 2015. Analisis motivasi petani dalam mengembangkan pertanian perkotaan di Provinsi DKI Jakarta. *Bul. Pertan. Perkotaan.* 5(30):16–24.
- [16] Mardikanto, Totok. 2010. Konsep-konsep pemberdayaan masyarakat. Cetakan 1. Surakarta: UNS Press.
- [17] Nasrullah, Rulli. 2018. Media sosial: perspektif komunikasi, budaya dan sosioteknologi. Cetakan kelima. Bandung (ID): Simbiosis Rekatama Media.
- [18] Oktarina S, Hakim N, Zainal AG. 2019. Persepsi petani terhadap strategi komunikasi penyuluh dalam pemanfaatan media informasi di era digital. *J. Komun. Pembang.* 17(2):216–226.
- [19] Othman N, Mohamad M, Latip R, Arifin M. 2018. Urban farming activity towards sustainable wellbeing of urban dwellers. *IOP Conf. Ser. Earth Environ. Sci.* 1171–7. doi:doi :10.1088/1755-1315/117/1/012007.
- [20] Pasaribu JM, Purnaningsih N, Mulyandari RSH. 2015. Pemanfaatan Informasi Teknologi Mangga ( Kasus Di Kecamatan Sedong Kabupaten Cirebon ). *J. Komun. Pembang.* 13(2):24–38.
- [21] Permana R, Sarwoprasodjo S, Susanto D, Saleh A. 2011. Efektivitas komunikasi program optimalisasi lahan pekarangan. *J. Komun. Pembang.* 9(1):20–28.
- [22] Prasetyo WH, Budimansyaha D, Roslidah N. 2016. Urban farming as a civic virtue development in the environmental field. *Int. J. Environ. Sci. Educ.* 11(10):3139–3146. doi:10.12973/ijese.2016.909a.
- [23] Pratiwi MR. 2015. "Membaca" Instagram dan Film Hijab dalam New Media: Diskursus sosial, budaya, politik dan ekonomi dalam ruang virtual. DH Santoso (Ed. by). Yogyakarta (ID). Buku Litera.
- [24] Rakhmat, Jalaludin. 1999. Psikologi komunikasi. Bandung. Remaja Rosdakarya.
- [25] Rezai G, Shamsudin MN, Mohamed Z. 2016. Urban agriculture: a way forward to food and nutrition security in Malaysia. *Procedia - Soc. Behav. Sci.* 216 216(October 2015):39–45. doi:10.1016/j.sbspro.2015.12.006.
- [26] Sajogjo, Sajogjo Pudjiwati. 1999. Sosiologi Pedesaan Kumpulan Bacaan. Yogyakarta. Universitas Gajah Mada Press.
- [27] Severin, W. J., & Tankard, J. W. 2011. Teori Komunikasi: Sejarah, Metode, & Terapan di dalam Media Massa (Ed ke-5). Jakarta (ID): Kencana.
- [28] Stolhandske S, Evans TL. 2017. On the bleeding edge of farming the city: an ethnographic study of small-scale commercial urban farming in Vancouver. *J. Agric. Food Syst. Community Dev.* 7(2):29–49. doi:10.5304/jafscd.2017.072.010.
- [29] Sumardjo, Syarief R, Riyanto S, Firmansyah A. 2016. Pemberdayaan kemandirian pangan berbasis urban farming sebagai alternatif solusi konflik agraria dan penanggulangan kemiskinan. In Prosiding Seminar Nasional Hasil-Hasil PPM IPB 2016, Bogor: LPPM IPB, pp. 264–277.
- [30] Wahyono E, Kolopaking LM, C TSM, Hubeis AVS. 2019. Jaringan Digital dan Pengembangan Kewirausahaan Sosial Buruh Migran Perempuan. *J. Ilmu Komun.* 16(1):57–76.