

Developing Communication Network Through Online System Among the Cooperatives in Transmigration Areas in Indonesia

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Abstract—Transmigration is a program created by the Indonesian government to move people from a densely populated area to other areas within Indonesia. To support the transmigration program, cooperative institutions are used as economic institutions of transmigrants, so that they can manage their economic activities on self reliance basis. Since 2017, the technique of online system was introduced to cooperatives in transmigration areas to speed up and simplify networking. However, the behavioral transformation (in term of cognitive, affective, and psychomotor domain) of transmigrants from the existing traditional conditions to modern management with online-based systems is not easy. The existence of a gap between the two conditions requires an appropriate method of communication in education. Using the participatory action research, this qualitative study finds that method of assistance could improve the competence of transmigrants. This resulted in the improvement of the business performance of the cooperative gradually, so that it has implications for policies of developing the program in other transmigration areas in Indonesia.

Index Terms—Transmigration, online-system, cooperative, communication in education, diffusion of innovation

I. INTRODUCTION

Transmigration is a program created by the Indonesian government to move people from a densely populated regions to other regions within Indonesia. The official aim of the program is to reduce poverty and population density, especially in Java, provide opportunities for people willing to work, and meet the labor needs to cultivate resources on other islands such as Papua, Kalimantan, Sumatera and Sulawesi. Subsequently, transmigration is carried out with a new paradigm to support food security and housing, support alternative energy policies (bio-fuel), support equal distribution of investment throughout Indonesia, support national resilience of outer islands and border areas, contribute to solving unemployment and poverty problems. Transmigration is no longer a resettlement program, but an effort for regional development

To support the transmigration program, cooperative institutions are used as economic institutions of transmigrants, so that they can manage their business on self reliance basis.

Since 2017, the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration introduced the technique of online system to cooperatives in transmigration areas to speed up and simplify networking among cooperatives and between cooperatives and external parties related to cooperative business activities. However, the behavioral transformation (in term of cognitive, affective, and psychomotor domain) of transmigrants from the existing traditional conditions to modern cooperative management with online-based systems is not easy. The existence of a gap between the two conditions requires an appropriate method of communication in education so that people can adopt the management and technology introduced.

Based on the above background we conducted a study entitled Developing Communication Network Through Online System Among The Cooperatives In Transmigration Areas In Indonesia. This study is conducted to answer the following questions: (1) Are the cooperative management and online system technique can be diffused to cooperative society of transmigrants, (2) whether assistance method can be an effective approach for diffusing the cooperative management and online system technique, which are indicated by behavioral change and business performance change, (3) How is the policy implication to develop the cooperative in transmigration area in Indonesia.

This study was conducted from July 2017 until October 2017 by participatory action research to 32 cooperatives in 4 transmigration areas (KPB) namely Lunang Silaut in West Sumatra Province, Mesuji in Lampung Province, Rawapitu in Lampung Province and Gerbang Kayong in West Kalimantan Province. In each transmigration area, 8 cooperative institutions are included

II. STATE OF THE ART

A. Conceptual Framework

Transmigration: Transmigration is voluntary migration to improve prosperity and settle in transmigration areas

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(Transmigration development areas/WPTs) and Transmigration Settlement Locations (LPT) organized by the government (Ministry of Village, Development of Disadvantaged Regions and Transmigration, 2015). The legal basis used for this program is the Law of the Republic of Indonesia Number 15 Year 1997 concerning Transmigration (previously Law No. 3 of 1972) and Government Regulation No. 2/1999 on Transmigration Implementation (formerly Government Regulation No. 42/1973) plus several presidential decisions and supporting presidential instructions.

The Law of the Republic of Indonesia Number 15 Year 1997 on Transmigration mandates the planning and development of transmigration areas towards the establishment of a growth center as a city embryo is carried out through increased investment of Government and/or Business Entity. To accelerate the realization of the centers of economic growth in the future, the development of Transmigration Development Area (WPT) and Transmigration Settlement Site (LPT) is carried out with the development of “*Kota Permukiman Baru/KPB*” (New Settlement Town), which includes spatial planning towards the realization of a city, prioritizing private sector involvement and community development planning that prioritizes the participation of transmigrants and local people. At present, there are 48 KPB¹ spread all over Indonesia.

Cooperative: International Cooperative Alliance (ICA) defines A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise. Co-operatives are businesses owned and run by and for their members. Whether the members are the customers, employees or residents they have an equal say in what the business does and a share in the profits. As businesses driven by values not just profit, co-operatives share internationally agreed principles and act together to build a better world through co-operation². Co-operatives are based on the values and the principles. The value of cooperative according to ICA consisting of self-help, self-responsibility, democracy, equality, equity and solidarity. In the tradition of their founders, co-operative members believe in the ethical values of honesty, openness, social responsibility and caring for others. The co-operative principles are guidelines by which co-operatives put their values into practice. It is consisting of voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, co-operation among co-operatives, concern for community.

The Law of the Republic of Indonesia number 25 of 1992 on cooperatives define cooperative as a business entity consisting of a person or a cooperative body by

doing its activities based on the principle of cooperatives as a people's economic movement based on the principle of kinship (Hanel, 1992, *In* Ariffin, 2013: 33), mention that an economic organization can be called a cooperative if it meets the four basic criteria, namely (1) established by a group of individuals, (2) conducting joint ventures to achieve common goals through self-help groups (called cooperative enterprise), (3) as a means to achieve mutual shared objectives, (4) The main duty of a cooperative enterprise is to organize services of goods / services that support the improvement of the economic condition of the household member (called: the task of promoting member economy).

Diffusion of innovation: Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concern with new ideas (Rogers, 1983:6). Meanwhile, Rogers also define an innovation is an idea, practices, or object that is perceived as new by an individual or other unit of adoption. It matters little, so far as human behavior is concern, whether or not an idea is “objectively” new as measures by the lapse of time since its first use or discovery. The perceive newness of the idea for the individual determines his or her reaction to it. If the idea seem new to the individual, it is an innovation. Rogers then states four main elements in the diffusion of innovation as he defined. The four main elements are the innovation, communication channels, time, and the social system.

In this study, the innovation is cooperative management and online system technology. These aspect are intended to diffuse to the members of the cooperative as the social system through the board of directors of the cooperatives.

Communication of education: Communication is defined as a process in which the participants create and share information with one another in order to reach a mutual understanding (Rogers, 1983: 63). Various types of communication research can generally be answered by Laswell's model (Mulyana, 2001: 136). The process of communication with the paradigm of Laswell's model will create structure and effects. The model he put forward is: "who says what in which channel to whom with what effect". The explanation of this model is as follows:

- Who is the communicator or who speaks
- Says what: is what it says/message content.
- In which channel is what media it uses.
- To whom is the receiver/who will receive it.
- With what effect is the effect of a running communication process.

The communication process is *omnipresent*, meaning that the process of communication occurs in every activity of life. It also means that communication also occurs in the process of education. Communication is the key of education, teaching and learning and it affects the

¹ Ministry of Village, Development of Disadvantages Regions, and Transmigration.

² ICA, <https://ica.coop/en/whats-co-op/co-operative-identity-values-principles> retrieved December 18, 2017

life of an individual throughout his/her whole life (Engin and Nihat, 2009). Unifying the communication model in an educational process, meaning that educator is communicator, educational curriculum is message, media and learning method is channel, learners is receiver, output of education process is effect.

The process of education can be done through formal, non-formal or informal way. Therefore, forms of education can be distinguished according to the level of organization and structure, conditions in which learning takes place, functionality and applicability of knowledge, skills and attitudes and level of certification of learning outcomes. Non-formal learning is characterized by a deliberate choice of the person, which takes place outside of the systems of formal education, in any organization pursuing educational and training purposes. Thus, non – formal education is any type of structured and organized learning which is institutionalized, intentional and planned by an educational provider, but which does not lead to formal level of qualification recognized by the relevant national education authority³. By those concept, the proses of managerial and online system technology assistance in this research is included in the category of non – formal education.

In educational psychology we define learning as a "change in behavior"⁴. So, it can be stated that the objective of education proses is change in behavior. Benyamin Bloom (1956) clasify change in behavior as learning/educational objective into three "domains": cognitive, affective, and psychomotor, which popular with the Bloom's taxonomy⁵.

Cognitive Domain, refers to intellectual learning and problem solving. Cognitive levels of learning include: knowledge, comprehension, application, analysis, synthesis, and evaluation. **Affective Domain**, refers to the emotions and value system of a person. Affective levels of learning include: receiving, responding, valuing, organizing, and characterizing by a value. **Psychomotor Domain**, refers to physical movement characteristics and motor skill capabilities that involve behaviors requiring certain levels of physical dexterity and coordination. These skills are developed through repetitive practice and measured in terms of speed, precision, distance, procedures, or execution techniques. Psychomotor levels include: perception, set, guided response, mechanism, complex overt response, adaptation, and origination.

Online system recently, however, the term "online" usually means being connected to the Internet. The connection can be through a phone line, using a dial-up or DSL modem, a cable line via a cable modem, or through

a wireless connection. A computer can also be online via a connection to a computer network. Technically, computers that are on a network are online even if they are not connected to the Internet. But most networks are routed to a T1 line or other Internet connection anyway⁶. Advantages of online system among others making easy to use to do shopping online, These systems have quick response time, It is easy to use just form filling and your job get processed automatically by web and database servers, Online banks nowadays use online processing systems for money transactions, You can access anything worldwide online and purchase it on the spot by bank wire transfer, credit cards, and online banks. All these systems are handled by online processing⁷.

With the same argument as explained above, the online system is introduced in the transmigration area to have connectivity between the cooperatives in the area and all business network and within the cooperatives, so that business and managerial performance of the cooperatives can be much better, and they are able to follow the on-going business practice, even business competition.

B. Method of Study

This study used the participatory action research method as one of the qualitative approach. Participatory Action Research (PAR) is an approach to research in communities that emphasizes participation and action. It seeks to understand the world by trying to change it, collaboratively and following reflection. PAR emphasizes collective inquiry and experimentation grounded in experience and social history. This method works beyond the participant observation method. In this method beside doing research, the researchers think and act a necessary intervention to the subject of the research, so that the researcher could involve in the process and evaluate the behavioral change of the target group as the subject of research. The subjects of this study are the board of directors and the employees of 32 cooperatives in 4 transmigration areas (KPB), namely Lunang Silaut in West Sumatra Province, Mesuji in Lampung Province, Rawapitu in Lampung Province and Gerbang Kayong in West Kalimantan Province. This study was carried out from July 2017 until October 2017. The list of cooperatives as the subject of research are as follows:

TABLE I: THE COOPERATIVES AS THE SUBJECT OF THE STUDY

No	Name of Cooperative	Kind of Business
<i>The KPB of Mesuji: the Province of Lampung</i>		
1	KSU Panca setia	Multi purpose
2	Coop. BMT PKK Pangkal Mas	Saving-loan
3	Coop. BMT Srikandi	Saving-loan
4	Coop. BMT Sumber Mulya Madiri	Saving-loan
5	KUD Tirta Makmur	Multipurpose
6	Coop. RMP Berkah Lumintu	Rice milling
7	Coop. Jaya Bersama HW. Trans	Trading
8	Coop. Pasar senin KPB Mesuji	Service

The KPB of Rawapitu, The province of

³http://www.young-adullt.eu/glossary/listview.php?we_objectID=193

⁴<https://med.fsu.edu/index.cfm?page=facultydevelopment.behavobjectives>

⁵Donald Clark (2015). <http://www.nwlink.com/~donclark/hrd/bloom.html>

⁶<https://techterms.com/definition/online>

⁷<http://www.itrelease.com/2014/07/advantages-disadvantages-online-processing-systems/>

	<i>Lampung</i>	
9	HW. Trans KPB Rawa Pitu	Trading
10	LP Pasar KPB Rawa Pitu	Service
11	RMP KPB Rawa Pitu	Rice milling
12	KSP Wira Bhakti Persada	Saving-loan
13	KSU Andalas Makmur	Multipurpose
14	KSU Barokah Insan Amanah	Multipurpose
15	KSU Anggun Lestari	Multipurpose
16	KSU Ratu Tani Muluya	Multipurpose
	<i>The KPB of Lunang Silau, The Province of West Sumatera</i>	
17	Coop. HW Trans KPB Lunang Silaut	Trading
18	LPP Pasar KPB Lunang Silaut	Service
19	RMP Saiyo KPB Lunang Silaut	Rice milling
20	KSU. Tumbu Lestari	Multipurpose
21	KUB. Usaha Mandiri sejahtera	Multipurpose
22	Coop. Jaya Bersama	Saving-loan
23	KUB Bina Usaha Mandiri	Multipurpose
24	KUB Usaha Bersama	Multipurpose
	<i>The KPB of Gerbang Kayong, The province of West Kalimantan</i>	
25	KSU Himpunan Wira Usaha Mandiri	Multipurpose
26	KSU RMP Karya Mandiri	Multipurpose
27	LP Pasar	Service
28	KSU Gapotan Berseri	Multipurpose
29	KSU Maju Jaya	Multipurpose

30	KSU Gapoktan Karya usaha	Multipurpose
31	KSU Bintang Khatulistiwa	Multipurpose
32	KSU Sumber Jaya Utama	Multipurpose

The process of assistance in which this study was carried out following several steps as seen at Fig. 1 as follows:

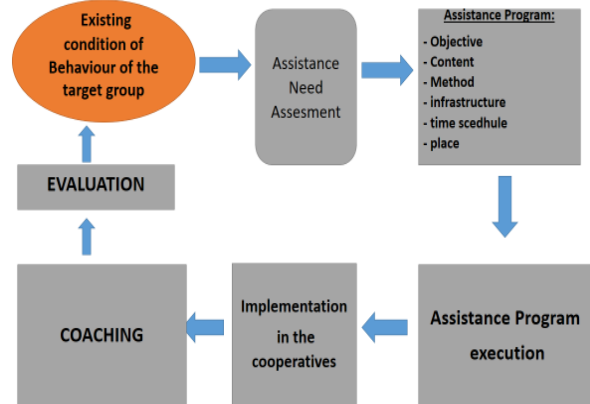


Fig. 1. The proses of assistance program

The description of the steps of assistance program is shown in Table II as follows:

TABLE II: DESCRIPTION OF THE STEPS

No	Step	Description
1	Existing condition of behavior of the target group	Actual behavioral condition of the target group concerning managerial and technical aspect of the informational technology, including cognitive, affective and psychomotoric domain.
2	Assistance need assessment	Measuring the gap between actual condition and ideal condition of the behavior, so that the management and the IT can run well in the cooperative. The gap denotes the need for assistance.
3	Assistance program	The formulation of program including: <ol style="list-style-type: none"> <i>Objective</i>: the level of cognitive, affective, and psychomotor domain of managerial and IT aspect, that should be reached at the end of the program. <i>Content</i>: The detail of Managerial and IT aspect as the subject matter of the program, consisting of: <ul style="list-style-type: none"> Finance/accounting Business plan Business networking Marketing Legal aspect Inputting the data and operating computer system updating data Online application: <i>Method</i>: the way of transforming the content to the target group, consisting of lecturing/training, group discussion, tutorial, practice, advocating, etc <i>Infrastructure</i>: equipment and space that must be available, such as computer, learning media, class-room, etc <i>Time schedule</i>: detail schedule of the program execution within 4 months <i>Tutor</i>: at each KPB, we assign a tutor who has to assist 8 coops.
4	Assistance program execution	Executing the assistance according to the program
5	Implementation in the cooperative	After assistance, the target group implement the subject matter at their own cooperative
6	Coaching	Direct guidance to the target group when they are implementing the subject matter in their cooperative
7	Evaluation	Measuring the achievement of the program at the target group, based on the formulation of the objectives

C. Expected Output

This study was aimed at answering three research questions as follows: (1) Are the cooperative management and online system technology can be diffused to cooperative society of transmigrants, (2) whether assistance method can be an effective approach for diffusing cooperative management and online system technology, which are indicated by behavioral change and business performance change, (3) How is the policy implication to develop the cooperatives in Transmigration area in Indonesia.

III. FACT FINDING AND RESULT

A. Diffusion of Managerial and Online System Aspect

Assistance activities as diffusion proses of cooperative management and IT (as innovation) conducted in this study include training/lecturing, tutorial, coaching, and advocating. The condition of behavior of the the target groups at the end of the program (when exit) is the indicator that the cooperative management and online system technology can be diffused to cooperative society of transmigrants.

This description is obtained by processing and analysing the data of behavior of the target groups on cognitive, affective, and psychomotor domains, both before the program execution and after the program execution. The technique used in this data processing is by scoring with scale of Likert 1–5, then ordinal data is obtained with criteria as follows:

Score 1: Less

Score 2: Bellow sufficient

Score 3: Sufficient

Score 4: Good

Score 5: Very Good

To obtain an overview of the behavior condition of the target group after the program, the behavioral conditions of cognitive, affective and psichomotoric are accumulated with the measurement criteria using the interval values as follows:

(highest score - lowest score) / number of classes:

$$(15 - 3) / 5 = 2.4$$

With this interval value, the measurement scale becomes:

Less : 3.0 - 5.3.

Below sufficient : 5.4 - 7.7

Sufficient : 7.8 - 10.1

Good : 10.2 - 12.5

Very good : 12.6 - 15.0

Based on this intervals values, it is proven that 32 cooperatives at 4 KPBs has achieved the development of behavioral change in “good” category (score interval 10.2 - 12.5) as shown by Fig. 2, Fig. 3, Fig. 4, and Fig. 5.

The figures of ending condition of behavior are presented in Fig. 2 for KPB of Mesuji, Fig. 3 for KPB of Rawa Pitu, Fig. 4 for KPB of Lunang Silaut, and Fig. 5 for KPB of Gerbang Kayong as follows:

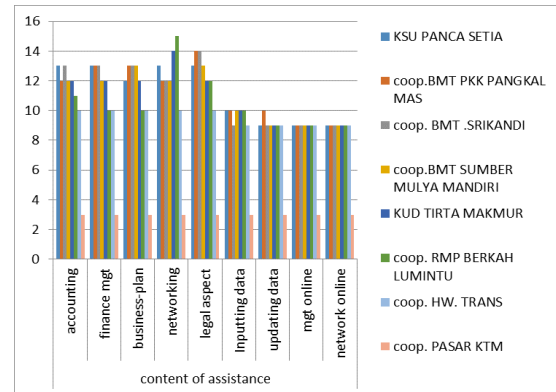


Fig. 2. The result of assistance program at KPB mesuji

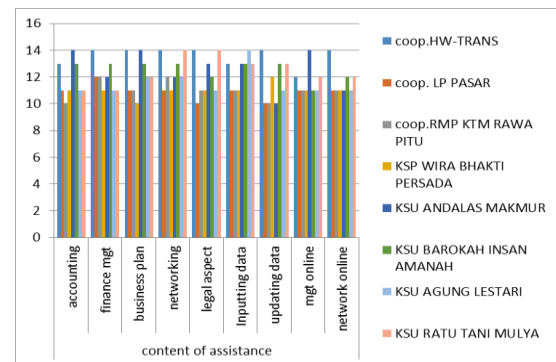


Fig. 3. The result of assistance program at KPB rawapitu

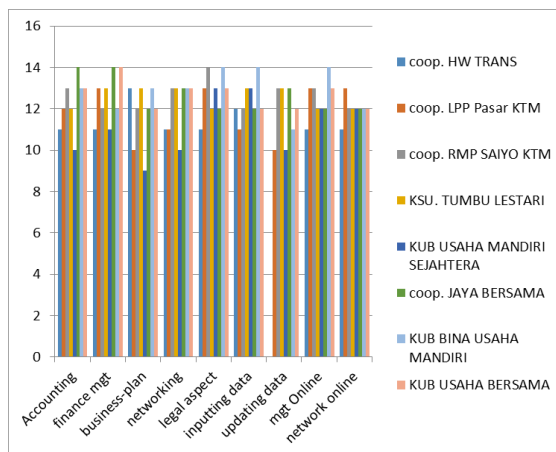


Fig. 4. The result of assistance program at KPB lungang silaut

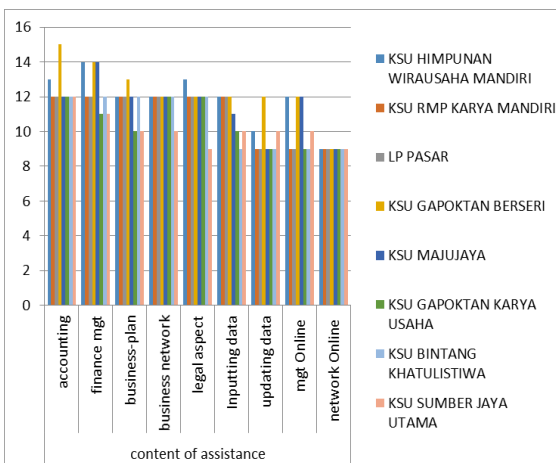


Fig. 5. The result of assistance program at KPB gerbang kayong

B. Effectiveness of Assistance Program

The effectiveness of the assistance program as a diffusion of innovation media for cooperative management and online system technology is evaluated by assessing (1) the change in target group's behavior, and (2) the change in business activities, between that of before assistance program and that of after assistance program.

The change in behavior is presented in Table III which represents the comprehensive behavioral change (summing cognitive, affective and psychomotoric domain) of managerial aspect, and Tabel IV which represents the behavioral change of online system aspect.

Table III is obtained through data processing by summing the behavioral variables scores, by using scoring interval as follows:

15 - 26: Less (1)

27 - 38: Below sufficient (2)

39 - 50: Sufficient (3)

51 - 62: Good (4)

63 - 75: Very good (5)

While the score interval for on-line system is as follows:

12 - 27: Less (1)

28 - 35: Below sufficient (2)

36 - 43: Sufficient (3)

44 - 51: Good (4)

52 - 60: Very good (5)

By using this criterion, it resulted in the figure of behavioral changes of managerial aspects and aspects of on-line technology with the following table.

TABLE III: THE CHANGE IN BEHAVIOR OF MANAGERIAL ASPECT

No	Cooperative	before program		after program	
		actual score	Cate-gory	Actual score	Cate-gory
1	KSU Panca Setia	45	(3)	64	(5)
2	BMT PKK Pangkal Mas	45	(3)	64	(5)
3	BMT .Srikandi	45	(3)	65	(5)
4	BMT Sbr Mly Mandiri	45	(3)	62	(4)
5	KUD Tirta Makmur	45	(3)	62	(4)
6	RMP Berkah lumintu	36	(2)	58	(4)
7	Jaya Bersama HW. Trans	31	(2)	50	(3)
8	PASAR Snn KPB Mesuji	15	(1)	15	(1)
9	HW Trans KPB Rw Pitu	45	(3)	69	(5)
10	LP Pasar KPB Rawa Pitu	35	(2)	55	(4)
11	RMP KPB Rawa Pitu	35	(2)	56	(4)
12	KSP Wira Bhakti Persada	34	(2)	54	(4)
13	KSU Andalas Makmur	41	(3)	65	(4)
14	KSU Brkh Insn Amanah	41	(3)	64	(5)
15	KSU Agung Lestari	36	(2)	57	(4)
16	KSU Ratu Tani Mulya	40	(3)	62	(4)
17	HW Trans Ln Silaut	40	(3)	46	(3)
18	LPP Pasar Ln Silaut	38	(2)	46	(3)
19	RMP Saiyo Ln Silaut	39	(3)	50	(3)
20	KSU. Tb Lestari	47	(3)	51	(4)
21	KUB. Usaha Mandiri Sejahtera	30	(2)	40	(3)
22	Jaya Bersama	48	(3)	53	(4)
23	KUB Bina Ush Mandiri	46	(3)	51	(4)
24	KUB Usaha Bersama	46	(3)	52	(4)
25	KSU HW Mandiri	43	(3)	64	(5)
26	KSU RMP Kry Mandiri	45	(3)	60	(4)
27	LP Pasar	45	(3)	60	(4)
28	KSU Gpkn Berseri	47	(3)	66	(5)
29	KSU Majujaya	45	(3)	62	(4)
30	KSU Gpkn Karya Usaha	39	(3)	57	(4)
31	KSU Btg Khatulistiwa	45	(3)	60	(4)
32	KSU Sumber Jaya Utama	41	(3)	52	(4)

Note : expected/ideal score is 75, as the measurement standard for comparison with actual score

TABLE IV: THE CHANGE IN BEHAVIOR OF ONLINE ASPECT

No	Cooperative	before program		after program	
		actual score	Cate-gory	Actual score	Cate-gory
1	KSU Panca Setia	24	(1)	37	(3)
2	BMT PKK Pangkal Mas	25	(1)	38	(3)
3	BMT. Srikandi	25	(1)	36	(3)
4	BMT Sumber Mulya Mandiri	24	(1)	37	(3)
5	KUD Tirta Makmur	25	(1)	37	(3)
6	RMP Berkah Lumintu	26	(1)	37	(3)
7	JAYA Bersama HW. TRANS	24	(1)	36	(3)
8	PASAR SENIN KPB Mesuji	12	(1)	12	(1)
9	HW TRANS KPB Rawa Pitu	36	(3)	53	(5)
10	LP PASAR KPB Rawa Pitu	28	(2)	43	(3)
11	RMP KPB Rawa Pitu	27	(1)	43	(3)

12	KSP Wira Bhakti Persada	28	(2)	45	(4)
13	KSU Andalas Makmur	33	(2)	48	(4)
14	KSU Barokah Insan Amanah	32	(2)	49	(4)
15	KSU Agung Lestari	30	(2)	47	(4)
16	KSU Ratu Tani Mulya	31	(2)	50	(4)
17	HW TRANS KPB Lunang Silaut	34	(2)	45	(4)
18	LPP PASAR KPB Lunang Silaut	32	(2)	45	(4)
19	RMP Saiyo KPB Lunang Silaut	36	(3)	51	(4)
20	KSU. Tumbu Lestari	37	(3)	50	(4)
21	KUB. Usaha Mandiri Sejahtera	37	(3)	47	(4)
22	Coop. Jaya Bersama	36	(3)	49	(4)
23	KUB Bina Usaha Mandiri	37	(3)	51	(4)
24	KUB Usaha Bersama	36	(3)	49	(4)
25	KSU Himpunan Wirausaha Mandiri	27	(1)	43	(3)
26	KSU RMP Karya Mandiri	26	(1)	39	(3)
27	LP PASAR	27	(1)	39	(3)
28	KSU Gapoktan Berseri	32	(1)	45	(4)
29	KSU Majujaya	23	(1)	41	(3)
30	KSU Gapoktan Karya Usaha	14	(1)	37	(3)
31	KSU Bintang Khatulistiwa	24	(1)	36	(3)
32	KSU Sumber Jaya Utama	21	(1)	39	(3)

Note : expected/ideal score is 75, as the measurement standard for comparison with actual score

By using data in the Table III and Table IV, then further analysis can give a figure of proportion of behavioral changes as shown in Table V as follows:

TABLE V. FIGURE OF PROPORTION OF BEHAVIORAL CHANGES IN 32 COOPERATIVES

No	The change of behavior on managerial aspect			The change of behavior on online system		
	Category of change	The amount of coope-ratives	%	Category of change	The amount of coope-ratives	%
1	Sufficient to very good	9	28.1	Sufficient to very good	1	3.1
2	sufficient to good	13	40.6	sufficient to good	6	18.8
3	Below sufficient to good	5	15.6	Below sufficient to good	8	25.0
4	Below sufficient to sufficient	3	9.4	Below sufficient to sufficient	1	3.1
5	Less to below sufficient	1	3.1	Less to below sufficient	16	50.0

Table V illustrates that behavioral change in the managerial aspect is more dominant. It is from “sufficient to good” by 13 cooperatives (40.6%). Next, followed by the category of behavior change from “sufficient to very good” by 9 institutions (28.1%). While on the aspect of on-line system, the dominant behavior change occurred in the category of “less to sufficient” by 16 cooperatives (50.0%). Next, followed by behavior change from “below sufficient to good” by 8 cooperatives (25.0%) and from “sufficient to good” by 6 cooperatives (18.8%)

In the managerial aspect, behavior change takes place satisfactorily because generally it occurred in one or two levels of change, but only 28.1% of cooperatives reaches ideal (very good), which means it does not yet fulfill expectation as it should. This is due to several obstacles in the field, such as the range of control of the one person tutor who must handle 8 cooperative with a radius of 20 km or more. Other factors, in general, the cooperatives are in a condition of stagnant, so it requires extra energy/effort in relatively longer time to move it.

In the on-line aspect, behavioral changes have gone on satisfactorily as they generally change in one to two levels of change. But only 21.9 Percent (7 cooperatives) just achieved very good and good category, while most others just reach sufficient category. This is due to several technical factors, namely the internet network is still weak and the availability of electricity is not yet stable. Any how, this results could prove the effectiveness of the assistance as a method of diffusion of innovation.

Business activities progress: as the indicator for the change in business activities or it is the second indicator of the second output of the research. The change in business activities are indicated by some facts as follows:

- (1) There has been an improved performance of the management due to implementation of online system in management. Financial reporting could run well and on time as sheduled, and well performed as standard form.
- (2) There has been an official agreement in the form of memorandum of understanding between 32 cooperatives with Bank Negara Indonesia 1946 (State Bank of Indonesia, 1946) as a state owned bank for supporting loan facilities for the cooperatives.
- (3) There has been as official agreement in the form of memoradum of understanding between 32 cooperatives and Perum Bulog (a state owned company which deals with buying, selling, and holding national stock of food for national food security). Bulog will buy agricultural product from the cooperatives, especially rice.
- (4) There has been agreement among the cooperatives to support the cooperatives of rice milling plant in term of rice suply, so that the rice milling plant can run the business well, and can support selling rice to Bulog.

Those findings of this study can answer well to the three research questions stated in the preliminary part of this study. This finding also emphasizes that the process of diffusion of an innovation into a social system needs to be done with appropriate methods adapted to the

conditions of innovation to be diffused and the conditions of the social system that will receive the innovation. This conclusion is in line with the result of my research on different conditions of the diffusion process, i.e. in the diffusion of creative industry values at Small and Medium Enterprises (SMEs) who become Sragen Technopark tenants, in Central Java Indonesia, that in this condition and in this objective, the business incubator approach is effective to be used for the diffusion of innovation of creative industry values⁸.

C. Policy Implication

Based on the fact finding of this study, it can be underscored that the assistance program effectively diffuses the cooperative management and online system technology to the cooperatives. In addition, the fact finding of this study shows the strengths and weaknesses of the assistance. Its strengths are; (1) process sequences is systematic, (2) the number of cooperative is sufficient to support good network at KPB, (3) the subject matter was formulated from the results of need assessment, and (5) the support of the central government and local government are consistent. Meanwhile, the weakness are: (1) unsufficient quantity of tutors, since only one person covered one KPB, 8 cooperatives, (2) the duration of the program was too short, i.e. 4 months. Whereas the behavioral change need longer period end even multi-years program, (3) support of technical infrastructure in the field such as electricity and signal network is still unsufficient.

Based on the fact finding, the policy implication is to continue and disseminate similar assistance program to other 44 KPBs in Indonesia, with improvements to the program by paying attention to those weaknesses.

IV. CONCLUSION

The results of this study give summary as follows:

- (1) The assistance programs can diffuse the cooperative management aspect and online system technology to the cooperatives.
- (2) The assistance program is effective as an approach to the diffusion of cooperative management and online system technology which is indicated by being able to change the business performance of cooperatives.
- (3) The policy implication of this study is that the assistance program is recommended to be nationally disseminated.

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⁸Setiawan, Wawan Lulus. Difussion of Inovation of Creative Industry Values on the Tenants of Sragen Tehcnopark Trough Business Incubator Model. *European Journal of Economics and Business Studies*, [S.l.], v. 8, n. 1, p. 48-56, may 2017. ISSN 2411-9571. Available at: <http://journals.euser.org/index.php/ejes/article/view/2451>. Date accessed: 04 feb. 2018. doi: <http://dx.doi.org/10.26417/ejes.v8i1.p48-56>