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Personalities and the Performance of Lead Farmers: A Case of Projects Applying the Rural Initiatives for Participatory Agricultural Transformation Approach, Tanzania

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Abstract

Voluntary adoption and expanding use of lead farmers (LFs) under the farmer-to-farmer extension (F2FE) approach by organizations, in the absence of any direct external promotion, confirms its effectiveness in responding to extension delivery needs. Although the F2FE approach has been used by many organizations and projects in Africa, there have been few studies—and limited promotion—using this approach when compared to the farmer field school (FFS) approach. This paper explores the needed personalities fit for LFs' career, and the way they can be improved. Using a cross-sectional research design, a sample of 384 farmers was selected through systematic sampling from a population of 1800 project beneficiaries; whose list was obtained from the RIPAT project managers. Primary data were analysed using the SPSS app, whereby variables related to personalities fit for LFs in leadership and facilitation skills were analysed using cross-tabulation. Checklists were used in collecting qualitative data through FGDs and KIIs, and were analysed through content analysis. The results show that the most needed personalities and associated soft skills to LFs include integrity (58.6%), being courageous (54.3%) and volunteerism (37.2%). The contribution of personalities to the performance of LFs includes helping them to become role models, increasing their reliability in the community, and enabling them in bringing group harmony. It was learned that the improvement of LFs' personalities can be achieved through setting goals for developing good relationship with others and practical training, which entails mentorship and coaching. It is concluded that the needed personalities and associated soft skills of LFs are related to leadership and facilitation skills. Therefore, it is recommended that these personality traits be considered in complementing the hard skills of LFs when it comes to F2FE.

Key words: *lead farmers, performance, personalities*, *RIPAT*

1. Introduction

There has been an increase in community-based extension approaches in developing countries because they are considered more inclusive, have a broader reach, and are cost-efficient and sustainable beyond the investment cycle (Franzel & Simpson, 2013; Wellard et al., 2013; Simpson, 2015; Bekele et al., 2017). The idea of shifting from the conventional training and visit (T&V) and farmers-field-school (FFS) approaches has made farmer-to-farmer extension (F2FE) a complementary approach that involves lead farmers (LFs) in sharing knowledge on

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agricultural technologies within their communities (Lukuyu et al., 2012; Kundhlande et al., 2014). Although the F2FE approach has been used by many organizations and projects in Africa, there has been a few studies and limited promotion when compared to the FFS approach and the use of information communication technologies (Franzel et al., 2015). In this regard, researches were conducted in Malawi, Cameroon and Kenya aiming at, among other things, understanding organizations' perceptions of the effectiveness of the F2FE approach (Simpson et al., 2015). Among the notable findings from all the countries studied are voluntary adoption, and continued and expanding use of the F2FE approach by organizations in the absence of any direct external promotion. These results confirm the effectiveness of the F2FE approach in responding to extension delivery needs (Kiptot & Franzel, 2015).

To add on, Kiptot and Franzel (2015) suggested that among the areas that LFs need training is on social learning dynamics, and areas related to soft skills, so that they can have the needed personalities for adaptive capacity to flexibly react to the needs and challenges that may arise as they interact with farmer trainees. According to Robles (2012), soft skills that describe the personalities of an individual include interpersonal qualities, also known as people's skills, and personal attributes that one possesses. It is a set of behaviours and personality traits one uses every day, and they are very important in complementing hard skills (technical knowhow). This implies that the improvement of personalities in a working place is through dealing with soft skills (daily behaviour). In this case, personalities that are characters/behaviours connected with personality traits (in-born character) need soft skills for improvement to fit to the job in question. According to Robles (2012), there are ten common personalities (soft skills) needed for improvement of personalities in working places: integrity, communication, courtesy, responsibility, social skills, positive attitude, professionalism, flexibility, teamwork and work ethics. Nonetheless, personality traits are modified by the environment in which an individual is found (Bickhard, 1992), so there is a room for personality improvement.

However, valuing soft skills for the improvement of personalities in a workplace has generally been very low, though currently there is an increasing importance. Deloitte (2017) argues that two-thirds of all jobs in Australia would rely on soft skills by 2030, and that the trend would be mirrored globally. In line to that, Majid et al. (2012) suggested that all careers require at least soft skills to make the hard skills valuable. Therefore, it is important to assess how personalities contribute to the performance of LFs.

The study on which this paper is based adopted the big five personality traits model which has been used in the assessment of human personality traits, and account for individual differences by determining why people respond differently to the same situation (Costa & McCrae, 1987). The measurement of the Big Five Personality Traits (abbreviated as OCEAN) includes six categories of traits and facets (sub-traits), which are:

i) Openness to experience (imagination, artistic interests, depth of emotions, willingness to experiment, intellectual, curiosity, tolerance for diversity);
ii) Conscientiousness 'work ethic' (sense of competence, orderliness, sense of responsibility, achievement-striving, self-discipline and deliberateness);
iii) Agreeableness (trust in others, sincerity, compliance, modesty, sympathy and altruism);
iv) Extraversion (warmth, gregariousness/sociability, assertiveness, activity level, excitement-seeking, positive emotions); and
v) Neuroticism—anxiety (angry/hostility, moodiness/contentment, self-consciousness, self-indulgence, sensitivity to stress).

The Research Community and Organisational Development Associates (RECODA) has been implementing projects using the rural initiatives for participatory agricultural transformation (RIPAT) approach, which uses LFs in bridging agricultural technology gaps and improving farmers' capacities (Ringo et al., 2014). Discussions of the common personalities of group members, including LFs, have been, to some extent, considered under projects applying the RIPAT approach (Vesterager et al., 2017).

According to Meijer et al. (2015), the low uptake of agricultural innovations by smallholder farmers in sub-Saharan African countries can be attributed to inadequate studies on the intrinsic factors of facilitators and adopters. Hence, the study from which this paper emanates focused on how the performance of LFs can be influenced by their personalities. The objective was to explore the needed personalities fit for LFs' career, and the way they can be improved. To achieve this, the paper attempts to answer the following questions: (i) What are the most needed personalities for LFs? (ii) What is the contribution of one's personalities to the performance of LFs? (iii) How can the improvement of LFs' personalities be ensured?

2. Methodology

2.1 Study Area

The study on which this paper is based was conducted in Karatu and Singida districts in Arusha and Singida regions, respectively. Geographically, Karatu and Singida are found in the northern and central parts of Tanzania, respectively. The selection of the study areas was based on the fact that the projects applying the RIPAT approach have been implemented in the two districts, where the contribution of LFs to the projects can be assessed (Lilleør & Sørensen, 2013). Normally, projects applying the RIPAT approach last for 2 to 4 years: the project in Karatu (Endabash Division) started in 2008; while that in Singida (Ilongero Division) started in 2012.

The Karatu district is located between latitudes 3°10' and 4°00' south of the Equator, and longitudes 34°47' to 35°56' east of the Greenwich Meridian. The district is a traditional home to the Iraqw ethnic group, with minor ethnic groups

including the Barbaig and Hadzabe who are among the last hunters and gatherers in the world. The district experiences varied climatic conditions; whereby in the Eyasi Basin, the annual rainfall is between 300–400mm, while it ranges between 900–1000mm per year in Karatu town. Karatu has three agro-ecological zones, namely: uplands, midlands and lowlands; with altitudes ranging from 1000–1900m above sea level (KDC, 2001; Meindertsma & Kessler, 1997). The principal crops grown in the highlands include wheat, barley, beans, maize, coffee, flowers, pigeon peas, sorghum, finger millet and sunflower; while in the midlands and lowlands the main crops grown are maize, beans, pigeon peas, sorghum, millet and sunflower. Onion is a common irrigated crop in the lowlands of Lake Eyasi, especially in Mang'ola ward.

The Singida district lies between 3^0 and 7^0 latitudes south of the Equator, and 34^0 and 35^0 longitudes east of Greenwich. The district has a semi-arid climatic condition with two seasons: the dry season, which is the longer (April to November); and the rainy season from December to March. The average annual rainfall is about 590mm ranging from 350–750mm per year; while the average minimum temperature ranges from 15˚C–30°C. The district's land physical features are dominated by lowlands, undulating plains and small hills. The principal crops grown include maize, sunflower, groundnuts, sorghum, millets, onions and sweet potatoes. The district is the traditional home to the Nyaturu ethnic group (90%), according to Tanzania's 2012 population and housing census report (NBS and OCGS, 2013).

2.2 Research Design, Sampling and Sample Size

The study adopted a cross-sectional research design. This design has been recommended by several scholars, including Babbie (1990), Bailey (1998) and Delice (2010), due to its cost and time effectiveness in data collection.

The target population (*N*) was the 1,800 households that had benefited from the RIPAT projects in Karatu and Singida districts. The sample size (*n*) was 384 households: the number was determined using Cochran's formula (Cochran, 1977 as cited by Bartlett et al. 2001), whereby:

$$n = \frac{z^2 p(1-2)}{e^2}$$

$$n = \frac{z^2 (pq)}{e^2}$$

where:

- n = sample size;
- z = a value on the abscissa of a standard normal distribution (from an assumption that the sample elements are normally distributed), which is 1.96 or approximately 2.0, and corresponds to 95% confidence interval;
- p = estimated variance in the population from which the sample is drawn, which is normally 0.5.

Using a Z-value of 1.96, a *p*-value of 0.5, a *q*-value of 0.5, and a *d*-value of 0.5% (which is equivalent to 0.05), the sample size (*n*) was determined to be 384 households, as shown below:

$$n = \frac{1.96^2(0.50 \times 0.50)}{0.05^2} = 384$$

The study used multistage sampling where simple random sampling and purposive sampling methods, including a stratified proportionate sampling technique, were employed to ensure that more respondents were obtained from Karatu district, which had more participants in the projects applying the RIPAT approach compared to Singida district. The strata were districts, wards and types of farmers (LFs and non-LFs). Male and female representatives of households were selected through systematic sampling. The population comprised two sub-populations of LFs and non-LFs. Both sub-populations were obtained from the RIPAT project officers/managers who had complete lists of RIPAT beneficiaries in the research areas. The first respondent was selected randomly using random numbers created in MS Excel using the '=RAND ( )' command, which generated random numbers. This was done at the ward level where a sampling interval for a relevant sub-population was obtained by dividing the sub-population *N* by the sub-sample size (*n*) to obtain the sampling interval *k*, i.e., $N/n = k$. Then, after the first respondent was selected, every k^{th} person was selected until the sub-population was exhausted.

Besides the LFs and non-LFs, 20 key informants (KIs) were selected purposively. KIs included people who were considered to be knowledgeable about the RIPAT approach, including extension officers (EOs), district project coordinators (DPCs), village government leaders and programme leaders/managers from RECODA who are the implementers of the projects using the RIPAT approach. Moreover, focus group discussion (FGD) participants (men and women) were selected from groups applying the RIPAT approach in each ward.

2.3 Data Collection and Analysis

The data were collected using a household questionnaire, and were coded and analysed using the Statistical Package for Social Sciences (SPSS) computer software, version 20; whereby descriptive statistics (i.e., frequencies, percentages, averages, minimum and maximum values of variables), multiple responses and non-parametric tests were determined. The qualitative data, which were collected through key informant interviews (KIIs) and FGDs, were analysed through content analysis. Transcription of the KIIs was done, followed by thematic analysis (Braun & Clarke, 2006); whereby the many words of text transcribed from recorded information were compressed into fewer content categories, resulting into synthesized meaning based on study objectives.

Preferred personalities fit for LFs' performance, as group leaders and facilitators of uptake of technologies, were rated at an index scale ranging from 1-5: i.e., strongly

disagree (1 point), disagree (2 points), neutral (3 points), agree (4 points), and strongly agree (5 points). The Friedman test—which is a non-parametric statistical test—was used to test ways of improving the personalities of LFs.

3. Results and Discussion

3.1 Personalities of the Lead Farmers

An exploration of the RECODA Academy[1] programme revealed that, apart from LFs being trained on new technologies (hard skills) at group plots, they were also trained and mentored on topics related to personalities for effective leadership and group facilitation. When asked about personalities that are important to them, the LFs' responses showed that their understanding was based on the various soft skills offered to them by the project implementing organization, and correlated personalities. As demonstrated in Table 1, about a half (49.7%) mentioned having good reputation to the community (integrity); while 28.9% and 27.7% of the respondents mentioned monitoring ability and creativity, respectively. Volunteerism and accountability (hardworking) were scored by less than a quarter of the respondents, each.

Table 1: Understanding on the Required Personalities of LFs (n=76)

Required Personalities of LFs	Male LFs (%)	Female LFs (%)	Total (%)
Integrity and good reputation	16.4	33.3	49.7
Monitoring	14.6	14.3	28.9
Creativity	18.2	9.5	27.7
Volunteerism	7.2	14.2	21.5
Accountability (hardworking)	16.4	4.8	21.2
Courageous	1.8	14.3	16.1
A visionary person	7.3	4.8	12.1
Good in monitoring	10.9	0.0	10.9
Time keeper	3.6	4.8	8.4
A progressive farmer.	3.6	0.0	3.6

Note: The total is based on multiple responses.

Integrity was highly ranked by the women as the most needed personality for LFs, while being creative was ranked highest by the men. Both men and women more or less agreed (14.6% and 14.3%, respectively) that monitoring was among the most important LFs personality. Through the FGDs, it was revealed that women ranked integrity highly because the lack of trust had cost them in previous projects as leaders indulged in swindling village savings and loan association (VSLA) funds, and misused project resources. In their assessment of the big five personality trait model, Costa and McCrae (1987) found integrity among the facets (sub-traits) under the big category of consciousness (work-ethics), while creativity and

[1]RECODA Academy is for: (i) Capacity building to various rural development actors on the application of the RIPAT approach; and (ii) Capacity building for community based experts (extension officers, local institutions and lead farmers) in facilitating adoption, up-scaling and sustainability of the project activities (Vesterageret al., 2017).

volunteerism were under openness and agreeableness (sympathy and altruism), respectively. A KII with the Karatu Project staff showed that LFs are given authority and are entrusted with resources to ensure their fellow farmers reach the set project objectives. Therefore, their integrity was highly needed.

LFs, as leaders, are required to have upright behaviours as communities tend to follow a leader of good integrity as they are trustworthy. This concurs with Kolzow (2014): that leaders need to model the behaviour they expect of others, which means they must demonstrate and communicate clear values for both themselves and their organizations; and be ethical in all their dealings. Also, Giuliani (2002) adds that "… you cannot ask those who work for you to do something you're unwilling to do yourself." LFs also need to understand the agricultural challenges leading to low yields and limiting uptake of agricultural technologies and then, with sympathy and dedication, solve the identified problems. Commenting on the volunteerism spirit, a district staff from Singida appreciated the way hardworking LFs with empathy can do a lot to the development of the community while not being adequately compensated.

The study findings indicate that, from the training offered to LFs, the LFs were required to demonstrate personalities with sound moral and ethical values in their relationships with fellow LFs, other farmers, village government leaders, staff from the project implementing organization, extension officers and other stakeholders. Through secondary information from the LFs' training guide, about ten personalities were emphasized under the RIPAT approach. These were visionary leadership, interpersonal skills, integrity and being honest, courageous and confident, volunteerism, creative and innovative, being organized and systematic, ability to mobilize and inspire, competence, and social entrepreneurship. These personalities are presented in Table 2.

Table 2: Important Personalities Trained for LFs Under the RIPAT Approach

Personality	Some Explanations and Importance
1. Visionary leadership	One of the important elements in the projects applying the RIPAT approach is the target beneficiaries and LFs to bear in their mind a development vision which, through an empowered World View approach, are used to help farmers to discover their value, creativity, potential, power, responsibility, accountability and purpose.
2. Competence	LFs are required to be competent in the implementation of their expected roles quite efficiently and independently. They start on the technical LFs so that they can learn and become competent on various technologies; that is to be known that they are competent in ABCD and not just a generalist. LFs acquire competence mainly from various teaching, training (coaching) and mentoring; and also were required to have a knowledge seeking behaviour (cognitive).
3. Creativity and innovation	Projects offer a wide range of technologies in the basket of options at the same time hence, the LFs are required to think out of the box and come out with different innovative ways of ensuring the uptake of technologies and project sustainability.

4. Courage and confidence	Mobilizing small-scale farmers into groups and ensuring adoption of technologies under rain fed agriculture entails a lot of challenges which need LFs to be courageous in facilitating project interventions. This skill is important because LFs have to facilitate agricultural projects to farmers who have witnessed the failure of many projects.
5. Inter-personal skills	This refers to behaviours and tactics a lead farmer uses in interacting and working well with various stakeholders which include staff from RECODA (project implementing organization), extension officers, fellow farmers and agro-inputs dealers. On interpersonal skills, LFs are exposed to a range of skills including communication and listening to attitude and manner.
6. Being organized and systematic (Consistence)	LFs were required to be organized and systematic in various aspects including laying out of experiential learning at group plots and at the same time implementing various activities based on the set format of gathering data/ information and timely write up of report based on the provided format.
7. Integrity and being honesty	Integrity for LFs is highly needed since they are given autonomy, trust and authority in the formation of new groups and facilitating project activities. LFs are expected to ensure timely availability of agro-inputs, gather the right information and report correctly so as to get reality of the project performances.
8. Volunteerism	This personality trait is important since among the main challenges facing extension services is inadequate extension officers and funds, so willing LFs are required to be ready to facilitate project activities without a salary.
9. Mobilization and inspirational	RIPAT being a group based approach LFs were required to have the culture of mobilizing scattered small-scale farmers into groups and build their capacity to adopt project interventions for improved livelihoods. LFs are expected to remain inspired and inspire their fellows throughout the project lifespan and even beyond to dream, learn, act and become successful LFs.
10. Social entrepreneurs	LFs-based sensitization on volunteerism spirit and capacity building on various technologies received from the project are expected to be able to identify various opportunities and take some risks of mobilizing resources so as to get profit.

Source: RECODA (2015) - RECODA Academy training guide

FGDs based on Table 2 revealed that while vision helped LFs to remain focused and help their fellows to do the same, competence and courage helped them to set implementable strategies. However, it was further noted through FGDs that all soft skills are required in enhancing the performance of LFs. The personalities of the LFs play a major role in community mobilization and retaining farmers' group members, and winning new ones through improved facilitation skills and networking ability. Hence, personalities help in the development of strong farmer groups in which, according to the evaluation of projects applying the RIPAT approach, good performance of project is mainly a result of strong farmers' groups that help to change the mind-set of farmers from weak to strong-willed farmers (Lilleør & Sørensen, 2013).

Interpersonal skills entails a communication listening attitude where the application of information and communication and technologies (ICT) are required to be

considered in relation to LFs' performance. Generally, LFs need to be creative and conversant with information related to marketing, weather, agro-inputs, outbreaks of pest and diseases, etc. According to Kee et al. (2012), information management skills and entrepreneurship skills are key soft skills for job-seeking individuals because most of recent workplaces are facing serious competitions in business, and the application of science and technology is no longer optional. As far as this study is concerned, and in this era of science and technology, LFs require information and management skills to effectively perform their roles. Therefore, this needs to be considered during the training of LFs. Moreover, well-informed LFs will be able to make informed decisions on issues related to marketing and weather forecasting.

One of the Singida district staff was of the opinion that a strong group is almost equal to a good performing project; and that this was enhanced with good interpersonal skills in group formation and development, as shown in the quote below:

> *... it requires proper communication to communicate the project messages during village meetings of selecting group members as per the set criteria of the RIPAT approach. At various stages of group development there are lots of group dynamics that call for various interpersonal skills related to negotiations, problem-solving and teamwork, especially during the storming stage which is associated with conflicts* (Singida District staff, August 2018).

3.2 Contribution of Personalities to the Performance of Lead Farmers

Through KIIs with RECODA management staff, it was noted that personalities were expected to enhance the performance of LFs on their mandated roles of facilitating the uptake of technologies under projects applying the RIPAT approach through enhancement of leadership and facilitation skills. The overall response to the study question on the importance of personalities to LFs revealed that over one-third of the respondents agreed that personalities enable LFs to become role models (39%), while 21.5% and 14.9% agreed that they improved integrity and enhanced their ability to bring harmony to the group, respectively (Table 3).

Table 3: The Contribution of Personalities to the LFs (n = 76)

Role of Personalities	Male		Female		Total	
	Freq.	*%*	*Freq.*	*%*	*Freq.*	*%*
Enable one to become a role model	66	28.9	23	10.1	89	39.0
Promote integrity and being honest	36	15.8	13	5.7	49	21.5
Enhances LF's ability to bring harmony to the groups	23	10.1	11	4.8	34	14.9
Makes one known in the community	17	7.5	3	1.3	20	8.8
Creates self-confidence	11	4.8	8	3.5	19	8.3
Increase ability to train others	12	5.3	5	2.2	17	7.5

Note: Freq. refers to Frequency

As leaders, LFs were required to be role models in living the project dreams/goals by working hard and inspiring other farmers to do the same so as to meet the set objectives. The importance of being a role model is in line with the observation by

Kiptot and Franzel (2015) that a farmer claimed he would only adopt a livestock feed innovations if he saw trainers (LFs) taking at least 10 litres of milk to the cooperative. Many small-scale farmers face many challenges in agricultural production; therefore, seeing is believing. That is why learning by doing leads to better results, and seeing the way LFs are at the forefront (role model) in adopting the project interventions is among the best ways of persuading the uptake of agricultural technologies, which in turn contributes significantly in LFs' performances.

3.3 Personality Development

It was revealed from the FGDs with LFs and non-LFs (NLFs), and a KII with the Karatu District DAICO that before the introduction of the projects applying the RIPAT approach, teaching on personalities was not as valued as teaching the hard skills. The personalities of LFs were not valued because most of the project implementing organization staff and extension officers were not aware about the importance of such skills, and how matching soft skills and hard skills could complement each other in improving the performance of LFs. This is confirmed by the quote below:

> *...we used to receive hard skills training and we were given notes on various agricultural technologies related to good agricultural practices (GAP), but it was very rare to learn about soft skills and the ways they complement hard skills* (Karatu DAICO - August 2017).

It was further pointed out that sensitization and training are among the important means of instilling the needed personalities to LFs. Generally, sensitization brings awareness of the required personalities (soft skills); while training brings an understanding of the importance in complementing hard skills (technical knowhow). Mostly, trainers of agricultural project facilitators, including extension officers, have not been exposed and capacitated to possess important soft skills that they could impart to the LFs. According to Singmaster (2013), soft skills in a workplace are important in relation to understanding how to best equip students with relevant soft skills (personalities) in consideration of how to match talent (supply) with employer needs (demand). However, CCHRA (2014) uphold that personalities were less valued till when the trend in employer needs in a workplace was influenced to include it in their competency frameworks.

The study findings (Table 4) indicate that the best ways to improve personalities is through the creation of awareness and training on the importance of personalities (20.7%), goal-setting (20.7%), instilling entrepreneurship attitude (17.3%), and practical training (16.7%). To educate community and networking with other stakeholders were least important, scoring 14% and 10.7%, respectively. The chi-square test results show the association was significant at $p = 0.000$ between the mentioned items on how to improve LFs' personalities.

The sub-sections that follow expound the quantitative findings in Table 4 to get an insight on how training, goal-setting, entrepreneurship attitude, practical training and monitoring improve the personalities of LFs.

Table 4: Ways to Improve Personalities (n = 76)

How to Improve LFs Personalities	Male		Female		All	
	nm	*%*	*nf*	*%*	*n*	*%*
Organized training on the importance of personalities to LFs	18	12.0	13	8.7	31	20.7
Setting goals - selecting criteria and developing good relationship with others (being a person of integrity)	19	12.7	12	8	31	20.7
Instilling entrepreneurship attitude	21	14.0	5	3.3	26	17.3
Practical training coaching)	18	12.0	7	4.7	25	16.7
Mentorship and monitoring	11	7.3	10	6.7	21	14.0
Networking with other stakeholders	12	8.0	4	2.7	16	10.7

Note: Non-parametric chi square, descriptive statistics sig at 0.000 for all the five variables. nm = number of male; nf = number of female, n = total number

3.3.1 Importance of Organized Training on LFs Personalities

Secondary information from the project progress reports, mainly quarterly reports, showed that the improvement of personalities was mainly done through the training of LFs under the RECODA Academy. A KII with the RECODA Programme Leader (PL) revealed that the improvement of interpersonal skills of LFs had been effected through describing important skills such as verbal and non-verbal communication, listening skills, negotiations, problem-solving, decision-making skills and assertiveness. The Programme Leader had this to say:

> *The first step in the development of LFs' soft skills is by letting them know the importance of the same in complementing the hard skills. This is normally done by listing and explaining the important soft skills fit for LFs under projects applying the RIPAT approach. Therefore, training emphasised on areas with major weaknesses. The planned training topics are aligned with other normal project activities, i.e., group visits, quarterly meetings, RECODA Academy training sessions, etc.* (RECODA Programme Leader, August 2017).

It was found that teaching is mainly done in-house through seminars focusing on theory, with some few discussions. LFs are trained based on the needed personalities identified during the training needs assessment, mainly covering definitions/ meanings, their importance in the improvement of the performance of LFs, and the ways they can be improved. However, the Environics Research Group (2014) and Bountrogianni (2015) argue that employers generally hire a candidate who possesses personalities and who is a good fit; who will be provided with training for the specifics of the job rather than continuing a long search for someone who possesses both technical skills and soft skills (personalities). This means that the importance of training in the development of LFs' personalities cannot be underrated. Furthermore, Cukier et al. (2015) suggest that soft skills need to be an important part of learning, and ought to be developed at every stage of curricula and beyond.

The contribution of personalities in LFs' performance was examined based on the perceptions of LFs on the importance of personalities being taught, together with other project interventions (hard skills). As illustrated in Table 5, the three statements ranked using five alternative answers. ranged from strongly disagree (1)

to strongly agree (5), revealed that all the statements were equally important. However, 15.8% (13.2 + 2.6) of the respondents were not satisfied (disagreed and strongly disagreed) with the emphasis put on the training of personalities. The findings suggest that there is a need for more emphasis on the training of personalities to LFs. It was learnt from FGDs with LFs that, apart from being trained by the project facilitators, they wanted some individuals to share some testimonies on how they have improved their personalities after the training.

Table 5: LFs Perception on the Importance of Personalities Teaching (n = 76)

Statement	Perceptions in %				
	SA	*A*	*N*	*D*	*SD*
The importance of including the personalities in the training is known	14.5	78.9	1.3	2.6	2.6
Enough emphasis of personalities is put in the training	3.9	78.9	1.3	13.2	2.6
Personally I understand the importance of personalities and my personality has improved	47.4	50	2.6	0	0

Note: SA = strongly agree, A = Agree, N = Neutral, D = Disagree, SD - Strongly Disagree

Table 6 presents the results on soft skills that LFs still needed further training. The results indicate that the first three skills—namely, facilitation/training techniques (19%), courage and confidence (13.7%), and integrity (13.3%)—are still highly desired by the LFs in the study area.

Table 6: LFs Areas of Further Personalities Training (n = 76)

Soft skills for personality improvement	Percent	Rank
Facilitation/training techniques	19.0	1
Courage and confidence	13.7	2
Integrity and being honesty (trustworthy)	13.3	3
Interpersonal skills i.e. listening and communication skills	11.8	4
Being a visionary leader	11.4	5
Entrepreneurship	11.0	6
Creativity	10.3	7
Consistence	9.5	8

Theoretical and practical trainings, accompanied with testimonies of the positive project results on food security and income from projects applying the RIPAT approach, gave LFs competences and courage in performing their roles of facilitating the uptake of agricultural technologies. However, Schimmack et al. (2002) argue that there is a relationship between culture and personalities, whereby certain communities are relatively better-off with the needed personalities fit for LFs than other communities. Diener and Lucas (2019) add that personality traits are not just a useful way to describe people you know: they actually help psychologists predict how good a worker will be, how long s/he will live and develop, and the types of jobs and activities the person will enjoy. A KII with the Karatu Extension Officer revealed that communities around small towns were

more forthcoming in the adoption of new technologies compared to those in more remote areas. This implies that trainings on soft skills for the improvement of certain personalities should not be generalized; rather, as much as possible, they should be tailor-made to reflect the reality of the communities in question.

3.3.2 Setting a Goal - Selection Criteria and Setting Personalities Goal

It was learned from the FGDs that it was very important to set a goal of selecting the right LFs based on some personalities, which include being an active group member (with good attendance, performing group activities well and abiding by a group's constitution), ability to pass on knowledge to others (good facilitators and leadership behaviours), and a good reputation among the group members and the community (integrity). The study's observation is in line with Ciroka (2014) who suggests the use of personality traits to match the right job with the right person. Also, this study finding is in line with Liao et al. (2008) who argue that personality traits can be used to explain people's attitudes and behaviour, and they are often used to predict outcome variables, such as work attitude and job satisfaction. LFs were required to focus on the goal (vision) illustrated in a farm/ household picture and have a set of system components which, upon implementation of the project's basket of technologies, will ensure an increase in agricultural production and productivity. The goal helps LFs to remain focused and help their fellows do the same.

As a set of goals, during the selection of high performing LFs under projects applying the RIPAT approach, LFs are expected to be skilled, self-motivated, and able to work in difficult conditions under minimum supervision (Vesterager et al., 2017). This implies that a wrong selection (not considering personalities) of LFs can result into a big challenge in the improvement of the personalities fit for LFs.

3.3.3 Practical Training (Coaching)

The practical training sessions tend to be on leadership and facilitation based on the principles of adult learning. As detailed in the LFs' RECODA Academy training notes used by the project implementation organization, the study revealed that some practical sessions were conducted whereby LFs acted as trainers facilitating project activities at group levels. Each LF was urged to set a target of improving some of the personalities that they thought were underdeveloped. Self-motivation and discipline to reach the set target were emphasized, which is in line with Ahamed et al. (2018) who argues that the best way to develop most personalities is to practise them regularly to make them be an architect of one's own career. When asked to comment on improvement of personalities through coaching and practising, a lead farmer from Karatu had the following to say:

> *... it was difficult to stand before fellow farmers to teach and organize the implementation of various activities timely, but through practising and under the guidance of the RECODA staff, I have improved in many ways; including interpersonal skills, confidence, competence, being organized, being systematic....*(Lead Farmer from Karatu, August 2018).

Learning by doing (coaching) by project implementing organization, which aims to improve the personalities of the LFs, entails encouraging through appreciating observed positive changes. However, improvement and consolidation of the required personalities is a continuous process taken as a normal practice mainstreamed in the daily project activities. This is in line with Lerman (2013) who argues that employees need to ensure they have all the skills needed in a working place; and that it is important to undergo on-the-job training on soft skills through refresher courses or learning by doing. This is in line with the saying that, 'practice makes perfection'. Therefore, as much as possible, learning by doing is important for instilling the desired personalities to LFs, and the project implementing organization should be keen on traits.

3.3.4 Instilling Socio-entrepreneurship Attitude

It was revealed from the FGDs that LFs were empowered to have the attitude of socio-entrepreneurs, which entails being proactive in identifying opportunities in the community that are in line with the roles (uptake of technologies), organize resources to exploit the opportunities in such a way that the community, as well as the LFs, will benefit. LFs engaged in the production of agricultural planting materials such as banana suckers, vines of orange fleshed sweet potatoes (OFSP), and pigeon peas under the quality declared seed (QDS) system that helps to ensure up-scaling of the project activities as availability and accessibility of the planting material become easier. Nevertheless, at the same time LFs gets benefits or money that sustains them as LFs. They were strongly urged to adopt project interventions so as to become successful farmers in the definition of social entrepreneurs under the RIPAT approach, that: "LFs are people who have developed social entrepreneurship as agents for change and are among the more successful farmers among project participants" (Vesterager et al., 2017).

3.3.5 Mentorship and Monitoring (Control Measures)

The study found that LFs have been mentored by staff from the project implementation organization (RECODA) through following up the ways they are implementing activities in the spreading groups. Among the aspects used in monitoring the personalities of the LFs include timely reporting with reliable information of group members' attendance, distribution of project agro-inputs, training, and reporting project performance at quarterly meetings. Using the saying that *'trust is good but control is better',* the expected personalities of the LFs were tracked through designed monitoring tools and predetermined periodic checks. Information and communication technologies (ICT) were used in project monitoring and data collection through the use of the Open Data Kit (ODK) and a Kobo Collect server. Transparency for LFs was facilitated through proper record keeping. LFs were required to abide by the core values of the implementing organization (RECODA), which are: transparency, accountability, creativity and teamwork (TACT). It was important for the LFs to know the required personalities: the core values adopted from the implementing organization became their personal identity, so as to gauge on how they were progressing.

The monitoring of the improvement of the LFs personalities, which was based on action and reflection, helped in ensuring consistency and focus to the set goals. Cukier et al. (2015) add that a wide range of initiatives may have been identified to improve personalities, but there is always a need for consistency, maintained over time and evaluated. This implies that personality improvement is a process that needs to be well organized with follow-ups.

4. Conclusions and Recommendations

Based on the study's findings, it can be concluded that personalities are very important when it comes to the performance of LFs. The most needed personalities for LFs are integrity, being courageous, volunteerism and interpersonal skills related to leadership, and facilitation skills to farmer groups in the uptake of technologies. It is also concluded that personalities contribute to the performance of LFs through enabling them to become role models, improving individual LFs' integrity and honesty, and enhancing their ability to bring harmony to the groups. It is further concluded that training, setting goals for developing good relationship with others (being a person of integrity), instilling socio-entrepreneurship attitude, and practical training (coaching) are the most important ways of improving the personalities of LFs.

Based on the study's findings and conclusions, the following are recommended:

(a) Development actors—be it from the government or the civil society (NGO) sector—should put equal emphasis on soft skills as they do on hard skills in the capacity building of LFs.
(b) Project implementing organizations need to prioritize personalities that enhance LFs' integrity and honesty, thus enabling them to become role models that bring harmony to farmers' groups.
(c) Further studies are required on how soft skills can be incorporated in curricula undertaken by agricultural and community development students/ personnel so as to improve their overall performance and interaction with communities.

References

Ahamed, S., Maurya, S. P., Khalane, V. (2018). Online Career Guidance System. *International Journal of Trend in Scientific Research and Development (IJTSRD),* 3(1): 2456 – 647.

Babbie, E. R. (1990). *Survey Research Methods.* Wadsworth Publishing Co, Belmount, California. 395pp.

Bailey, K. D. (1998). *Methods of Social Research* (4th Edition). The Free Press, New York. 345pp.

Bartlett, J. E., Kotrlik, J. W. & Higgins, C. C. (2001). Organizational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal,* 19(1): 43–50.

Bekele, A., Chanyalew S, Damte, T., Assefa, K. & Tadele, Z. (2017). Lead Farmers Approach in Disseminating Improved Tef Production Technologies. *Ethiop. J. Agric. Sci.,* 27(1): 25–36.

Bickhard, M. H. (1992). How Does the Environment Affect the Person? Children's Development within Social Contexts: Meta-theoretical, Theoretical and Methodological Issues, Erlbaum, pp. 2–6.

Bountrogianni, M. (2015). Six Ways Continuing Education Can Close Canada's Skills Gap. [http: //www.huffingtonpost.ca/dr-marie-bountrogianni/adult-education - second-career_b_7737592.html]. Site visited on 20/6/2019.

Braun, V. & Clarke, V. (2006). Using thematic Analysis in Psychology. *Qualitative Research in Psychology* 3(2): 77–101.

CCHRA (Canadian Council of Human Resources Associations) (2014). New CHRP Competency Framework.http: //c.ymcdn.com/sites/www.chrp.ca/ resource/resmgr/ FAQx_CHRP_Competency_Framewo.pdf]. Site visited on 22/2/2020.

Ciroka, N. (2014). CEO's Personality and their Impact on an Organizational Performance. *Agricultural University of Tirana, Faculty of Economics & Agribusiness, European Scientific Journal,* 10(34): 315 – 318.

Costa, P.T. & McCrae, R.R. (1987). Validation of the Five-factor Model of Personality Across Instruments and Observers. *Journal of Personality and Social Psychology,* 52(1): 81.

Cukier, W., Hodson, J. & Omar, A. (2015). Soft Skills Are Hard - a Review of the Literature; Supported by the Social Sciences and Humanities Research Council (SSHRC) - Ryerson University, Canada. 47 pp.

Delice, A. (2010). The Sampling Issues in Quantitative Research - Marmara University Faculty of Atatürk Education, Department of Secondary Science and Mathematics Education, Mathematics Education 34722; Turkey. 18 pp.

Deloitte (2017). Deloitte Access Economics: Soft Skills for Business - Deakin Co- [Downloads/deloitte-au-economics-deakin-soft-skills-business-success-170517.pdf]. Site visited on 20/6/2019.

Diener, E. & Lucas, R. E. (2019). Personality Traits. in R. Biswas-Diener and E. Diener (Eds), *Noba Textbook Series: Psychology*. Champaign, IL: DEF publishers. Retrieved from http: //noba.to/96u8ecgw

Environics Research Group (2014). Career Development in the Canadian Workplace: National Business Survey - CERIC. Retrieved from http: //ceric.ca/career-development-in-the-canadian-workplace-national-business-survey. Extension 19: 1, 21–35pp.

Franzel, S. & Simpson, B.M. (2013). Famer to famer extension Back to the future: MEAS Symposium – Evidence for Field; Washington DC.

Franzel, S., Degrande, A., Kiptot, E., Kirui, J., Kugonza, J., Preissing, J. & Simpson, B. (2015). Farmer-to-farmer extension. Note 7. GFRAS Good Practice Notes for Extension and Advisory Services. Global Forum for Rural Advisory Services: [http: //www.g-fras.org/en/download.html].Site visited on 22/6/2018.

Kee, C. P., Ahmad, F., Ibrahim, F., and Nie, K. S. (2012). Correlating Graduate Marketability. Dimensions with the Measurements of University-student Relationship. *Asian Social Science,* 8(6): 63.

Kiptot, E. & Franzel, S. (2015). Farmer-to-farmer Extension: Opportunities for Enhancing Performance of Volunteer Farmer Trainers in Kenya. *Development in Practice, 25*(4): 503–517.

Kundhlande, G., Franzel, S., Simpson, B. & Gausi, E. (2014). Farmer-to-farmer Extension Approach in Malawi: a Survey of Organizations. ICRAF Working Paper No.183. Nairobi, World Agroforestry Centre. 42 pp.

Lerman, R. L. (2013). Should Employer-led Training be the Framework for Workforce Development? Atlantic Council and University of Maryland School of Public Policy. [http: //www.industrystudies.pitt.edu/kansascity13 /documents/.pdf]. Site visited on 23/6/ 2020.

Liao, H., Chuang, A., and Joshi, A. (2008). Perceived Deep Level Dissimilarity: Personality Antecedents and Impact on Overall Job Attitude, Helping, Work Withdrawal, and Turnover. *Organizational Behaviour and Human Decision Processes,* 106(2): 106–124.

Lilleør, H. B. & Sørensen L. (2013). *Farmers' Choice: Evaluating an Approach to Agricultural Technology Adoption in Tanzania*. Practical Action Publishing; Rockwool Foundation Research Unit, Denmark. 154pp.

Lukuyu, B., Place, F., Franzel, S. & Kiptot, E. (2012). Disseminating Improved Practices: Are Volunteer Farmer-trainers Effective? *Journal of Agricultural Education and Extension,* 18: 525–554.

Majid, S., Liming, Z., Tong, S. & Nanyang, S. R. (2012). Importance of Soft Skills for Education and Career Success. *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE),* 2: 1036–1042.

Meijer, S.S, Catacutan, D., Ajayi, O.C., Sileshi, G.W., Nieu-wenhuis, M. (2015). The Role of Knowledge, Attitudes and Perceptions in the Uptake of Agricultural and Agroforestry Innovations among Smallholder Farmers in Sub-Saharan Africa. *International Journal of Agricultural Sustainability,* 13(1): 40–54.

NBS and OCGS-National Bereau of Statistics and Chief Government Statistician (20130https: //www.nbs.go.tz/index.php/en/tanzania-statistical-abstract/280–statistical- abstract-2013

RECODA. (2015). RECODA Academy Training Guide, RECODA, Arusha Tanzania. 88pp

Ringo, D.E., Maguzu, C. & Ng'ang'a, J. (2014). An Alternative Extension Approach to Technology Transfer for Poverty Reduction and Food Security to Small Scale Farmers in Tanzania. *Journal of Continuing Education and Extension,* 4(1): 98–118.

Robles, M. (2012). Executive Perceptions of the Top 10 Soft Skills Needed in Today's Workplace. *Business Communication Quarterly,* 75(4): 453–465.

Rudolph W. G. (2002). *Leadership*, Miramax Books, New York. 209pp.

Schimmack, U., Radhakrishnan, P., Oishi, S., Dzokoto, V. & Ahadi, S. (2002). Personality Processes and Individual Differences: Culture, Personality, and Subjective Well-Being: Integrating Process Models of Life Satisfaction. *Journal of Personality and Social Psychology,* 82(4): 582–593.

Simpson, B.M., Franzel, S., Degrande, A., Kundhlande, G. & Tsafack, S. (2015). Farmer-to-farmer Extension: Issues in Planning and Implementation. MEAS Technical Note. USAID. 4–12pp.

Singmaster, H. (2013). Seven Skills Students Need for the Future. Asia Society. [http:// asiasociety.org/education/resources-schools/professional-learning/seven-skills- students-need-their-future]. Site visited on 27/8/2019.

Vesterager, J. M., Ringo, E. D., Maguzu, C. W., Ng'ang'a, J.N. (2017). *The RIPAT Manual - Rural Initiatives for Participatory Agricultural Transformation.* Copenhagen: The Rockwool Foundation, Denmark. 15 – 93pp.

Wellard, K., Rafanomezana, J., Nyirenda M., Okotel, M. & Subbey, V. (2013). A Review of Community Extension Approaches to Innovation for Improved Livelihoods in Ghana, Uganda and Malawi. *Journal of Agricultural Education and Extension,* 19(1): 21–35pp.

Poteete, A. R. & Ostrom, E. (2004). in Pursuit of Comparable Concepts and Data About Collective Action. *Agricultural Systems,* 82(3): 215–232. doi: 10.1016/j.agsy.2004.07.002.

Robitzsch, A. (2020). Why Ordinal Variables Can (Almost) Always Be Treated as Continuous Variables: Clarifying Assumptions of Robust Continuous and Ordinal Factor Analysis Estimation Methods. *Frontiers in Education,* 5(589965): 177. doi: 10.3389/ feduc.2020.589965.

Şahin, B. M. & Arastaman, G. (2018). Psychometric Analyses of the School Governance Scale and a Study for Principals, Teachers and Other School Personnel. *Kastamonu Education Journal,* 27(1): 1–13. doi: 10.24106/kefdergi.417776.

Sehrawat, M. & Roy, M. M. (2021). Expected Roles and Functions of the School Management Committee: An Investigation for Effective Functioning. *South Asian Journal of Social Sciences and Humanities,* 2(1): 79–92. doi: 10.48165/sajssh.2021.2107.

Sijtsma, K. (2009). on the Use, the Misuse and the Very Limited Usefulness of Cronabch's Alpha. *Psychometrika,* 74(1): 107–120. doi: 10.1007/s11336–008–9101–0.

StataCorp. 2017. *Stata Statistical Software*: *Release* 15. College Station, TX: StataCorp LLC.

Streiner, D. L. (2003). Starting at the Beginning: An Introduction to Coefficient Alpha and Internal Consistency. *Journal of Personality Assessment,* 80(1): 99–103. doi: 10.1207/ S15327752JPA8001_18.

Sullivan, G. M. & Artino, A. R., Jr (2013). Analyzing and Interpreting Data from Likert-Type Scales. *Journal of graduate medical education*, 5(4): 541–542. doi: 10.4300/JGME-5–4–18.

Tabachnick, B. G. & Fidell L. S. (2007). *Using Multivariate Statistics*. Boston, MA: Pearson Education Inc.

Tavakol, M. & Dennick, R. (2011). Making Sense of Cronbach's Alpha. *International Journal of Medical Education*, 2: 53–55. doi: 10.5116/ijme.4dfb.8dfd.

United Republic of Tanzania (URT). (2001). *Primary Education Development Plan*. Dar es Salaam, Tanzania: Ministry of Education and Vocational Training (MoEVT).

United Republic of Tanzania (URT). (2006). *Primary Education Development Program II* (2007–2011). Dar es Salaam, Tanzania: Ministry of Education and Vocational Training (MoEVT).

United Republic of Tanzania (URT). (2012). *Primary Education Development Program III* (2012–2016). Dar es Salaam, Tanzania: Ministry of Education and Vocational Training (MoEVT).

United Republic of Tanzania (URT). (2018). Education Circular No. 1 2018: Guideline for formation and management of school committee and boards. Dodoma, Tanzania: Ministry of Education, Science and Technology (MoEST).

Van Wyk, N. (2004). School Governing Bodies: The Experience of South African Educators. *South African Journal of Education,* 24(1): 49–54.

Vaske, J. J., Beaman, J. & Sponarski, C.C. (2017). Rethinking Internal Consistency in Cronbach's Alpha. *Leisure Sciences,* 39(2): 163–173. doi: 10.1080/01490400. 2015. 1127189.

Wade, R. (1987). The Management of Common Property Resource: Finding a Cooperative Solution. *Research Observer,* 2(2): 219–234. doi: 10.1093/wbro/2.2.219.

Williams, B. A., Onsman, A. & Brown, G. T. (2010). Exploratory Factor Analysis: a Five-Step Guide for Novices. *Journal of Emergency Primary Health Care*, 8(3): 1–13. doi: 10.33151/ ajp.8.3.93.

Wrights, S. C. (2009). The Next Generation of Collective Action Research. *Journal of Social Issues,* 65(4): 859–879. doi: 10.1111/j.1540–4560.2009.01628.x.

Yong, A. G. & Pearce, S. (2013). A Beginner's Guide to Factor Analysis: Focusing on Exploratory Factor Analysis. *Tutorials in Quantitative Methods for Psychology,* 9(2): 79–94. doi: 10.20982/tqmp.09.2.p079.

Young, A. & Bryan, J. (2015). The School Counselor Leadership Survey: Instrument Development and Exploratory Factor Analysis. *Professional School Counseling,* 19(1): 1–17. doi: 10.5330/1096–2409–19.1.1.