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## **Model of Success: Extension Services Helping Ugandan Youth Find A Career in Agriculture**

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### **Abstract**

*As the world continues to experience a population boom amidst growing food insecurity concerns, the need for well-trained and competent youth in agriculture-related industries is on the rise in Sub-Saharan African countries, specifically Uganda. With 78 percent of Uganda's population below the age of thirty, the number of unemployed and unskilled workers presents a challenge to a country that relies heavily on jobs within the agricultural sector to thrive. Due to the increased number of unskilled youths, extension-based services such as the National Agriculture Advisory Services (NAADS) and the Uganda Forum for Agricultural Advisory Services (UFAAS) are needed to connect with youth organizations to provide training and direction for those seeking careers in agriculture. This study sought to better understand the phenomena of competency development through various communication channels used to facilitate leadership development and agricultural literacy within a youth organization known as Nokia Farming Agricultural Innovation Platform (NOFAIP). A single instrumental case study was conducted to assess the career preparedness of youth within the NOFAIP group and opportunities that exist for employment within agriculture-related industries. Results found that upon receiving training from UFAAS, the NOFAIP group had increased their credibility amongst Ugandan farming communities and supported the growth of agricultural competencies, such as soil testing, using backpack sprayers to spread fertilizers, and managing citrus groves. Through hands-on experiences and engagement with appropriate training, the NOFAIP group established communication channels that were critical to experience personal growth and the invigoration of an entrepreneurial spirit within agriculture.*

**Keywords:** international agriculture, youth development, career opportunities, extension

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## **Introduction**

Uganda is a rapidly growing country with a population comprised of youth who lack the training and exposure to agriculture (FAO, 2015). With 78% of the current population below the age of thirty, Uganda faces an increasing challenge of unemployed and untrained youth who are unable to find careers within agriculture and related industries (Ahaibwe, Mbowa, & Lwanga, 2013). Young adults over the age of 18 account for 64% of Uganda's unemployment (Uganda Bureau of Statistics, 2012). As challenges with food security continue to rise in Uganda, creating a connection between sustained food output and young adults finding careers within agriculture is limited (Uganda Bureau of Statistics, 2012).

Furthermore, the literature suggests that youth interest in agriculture is declining amidst the rising youth unemployment, undermining the efforts of the Ugandan government to drive economic growth through increasing agricultural production (Ahaibwe et al., 2013). The countrywide phenomena of unemployment further necessitate the need for well-trained youth to be versed in agricultural production, while appeasing the escalating need for increased employment opportunities throughout Uganda (Ahaibwe et al., 2013).

Therefore, a cross-disciplinary approach to providing increased employment opportunities for youth exists within the current extension model sustained by the government of Uganda (Benin, Nkonya, Okecho, Randriamamonjy, Kato, Lubade, & Kyotalimye, 2011). However, current extension efforts maintained by the Ugandan National Advisory Agricultural Services (NAADS) and the Uganda Forum for Agricultural Advisory Services (UFAAS) lack the appropriate communication methods and resources to effectively provide the hands-on services that are expected to be maintained through the extension-farmer-youth relationships (McCole, Culbertson, Suvedi, & McNamara, 2014). Examining novel extension outreach models within Uganda is important to properly assess how investments in education and training of the next generation youth from rural agricultural communities to fill the unemployment gap is critical to predicting the success of Ugandan agriculture (Semana, 1999). With a gap in the literature investigating the role of extension networks, the aim of this study was to illuminate how extension networks are actively used to improve agricultural training for youth while continuing to make agriculture a viable and attractive industry for employment.

## **Theoretical Framework**

The theoretical framework used to guide this study was developed by Rogers (2003) and is known as the theory of diffusion of innovations. Rogers described diffusion as "a kind of social change, defined as the process by which alteration occurs in the structure and function of a social system. When new ideas are invented, diffused, and adopted or rejected, leading to certain consequences, social change occurs" (Rogers, 2003 p. 120). With an emphasis on co-creation of new knowledge, change agents and potential adopters must work together to fully employ the efforts of Diffusion of Innovation (Moriba, Kandeh, & Edwards, 2011).

In addition to using Diffusion of Innovation theory, community-based social marketing was employed to complement the efforts of Diffusion of Innovations (McKenzie-Mohr, 2011). This strategy assisted the research team in discovering "the actual barriers to inhibit individuals from engaging in the activity, as well as what would motivate them to act" (McKenzie-Mohr, 2011, p. 22). By combining both theories together, the aim of the study was to learn how extension services develop and sustain norms within communities of youth who are interested in agriculture (McKenzie-Mohr, 2011). By examining how youth within the Nokia Farming Agricultural Innovation Platform (NOFAIP) group respond to specific, pre-existing social norms,

this research applied the experiences shared and observations made while conducting the single instrumental case study in order to clarify how diffusion of innovations will realize more effective approaches working to enhance youth competencies in Ugandan agricultural efforts (Creswell & Poth, 2016).

### **Purpose and Research Questions**

The purpose of this study was to develop an understanding of the influence that extension and outreach efforts of the UFAAS, a local extension and rural advisory service provider, have on Ugandan youth with an interest in agriculture, with a particular focus on the experience of individuals associated with NOFAIP. The study was guided by the following research questions; 1) What is the background of the UFAAS network and how does it serve as a change agent regarding youth in agriculture; 2) What were the change process actions initiated by UFAAS that were relevant to NOFAIP; 3) What is the level of impact, or adoption, seen through outcomes associated with the interaction between UFAAS and NOFAIP?

### **Methods**

Utilizing qualitative case study techniques, the researchers aim to empower marginalized individuals to share their stories and be represented in the literature by observing the variables of a case study with a holistic stance (Creswell & Poth, 2016). Therefore, the researchers employed the use of a single instrumental case study as a method to “focus on an issue or concern,” while further illustrating the issue highlighted by individuals, groups and programs (Creswell & Poth, 2013, p. 99) from a post-positivist perspective. At the core of conducting case study research lies the key to gathering “current, real-life cases that are in progress, so they can gather accurate information not lost by time” (Creswell & Poth, 2013, p. 98).

Based on the recommendations of the literature, the program that was assessed through the single instrumental case study was identified as the NOFAIP of the Zirobwe Agaliawamu Agribusiness Training Association. The NOFAIP group was further examined to assess the value and capacity building components while training youth for service-oriented careers while helping farmers in Uganda. The case study was focused on a single work team of four individuals plus the NOFAIP director, as well as the UFAAS leadership team. The single instrumental case study allowed for in-depth observations and analysis (Creswell & Poth, 2013). Seidman (1998) suggests that case studies provide an opportunity to establish contemporary phenomena to be observed through examining focus groups and expose the boundaries between phenomena and context that are often difficult to observe.

Therefore, the intent of this study was to provide an initial level of insight from an exploratory perspective that enhances future inquiry of youth who are interacting with extension-based services in Uganda. Data were collected while on-site in Uganda. Key informant interviews, artifact collection, observations, and reflective journaling was completed by the researcher to gather data. Field notes, interview transcriptions, artifact reviews, and journal entries were later thematically analyzed to identify findings (Creswell & Poth, 2016).

### **Subjectivity Statement**

In qualitative research, it is essential to recognize the bias that may exist from a researchers' previous experience and its contribution to the data analysis and interpretation. Therefore, it is important to note that at the time data were collected and analyzed the primary researcher was conducting an evaluation of the continental African Forum for Agricultural

Advisory Services network as part of a larger study. Furthermore, the primary researcher has previous experience working with extension networks in over 50 countries from all six permanently inhabited continents.

## Results

### Background of UFAAS

The UFAAS network was launched in 2011 with a focus on engaging in numerous projects and activities, primarily centered around five themes: policy, climate-smart agriculture, youth in agriculture, food and nutrition, and income. UFAAS works to serve as an opinion leader and promote an effective, efficient, and innovative agricultural advisory service system in Uganda.

Like many African nations, Uganda has experienced many changes to their government-based extension system over the past decade. One such change has been due to the establishment of the National Agricultural Advisory Services (NAADS) Act. Under the act, the public extension system was phased out and replaced by a more privatized system. With a ratio of one extensionist to approximately 2000 farmers in the country there has been an expressed need for organizations such as UFAAS to provide supplementary support.

UFAAS has been engaged as a recognized actor in supporting new extension related policy. For example, the UFAAS objective to promote professionalism, and ethical conduct in the agricultural extension and advisory services (AEAS) system in Uganda was recognized by the Minister for Agriculture, Animal Industry and Fisheries (MAAIF). According to the UFAAS leadership team, in 2017 UFAAS was invited to support the development of a set of Extension Guidelines and Standards, Ethical Code of Conduct and Proceedings for Registration and Accreditation of AEAS providers. Through the UFAAS network of professional members, UFAAS was able to successfully draft the requested documents. The proposed documents were reviewed and approved by the MAAIF top management team and the program was launched in June 2017.

UFAAS involvement in the front-line of agricultural advisory services (AAS) policy in Uganda has positioned the organization well to serve the industry in many capacities. One such area is UFAAS' support for youth in agriculture. Based on high levels of youth unemployment and challenges with maintaining food security there has been a weak logical connection between trying to engage unemployed youth in agriculture and provision of training and direction to those seeking careers in agriculture. However, the challenge of meeting needs at the individual level is most difficult to understand. For instance, UFAAS leaders indicated three primary challenges as it relates to attracting youth to agriculture: First, for many individuals, agriculture is considered *dirty* [emphasis added to indicate key informant language] work with few parents supporting their children to pursue it as a career. Second, for those youth interested in agriculture, it is very challenging to acquire land, materials, and the capital to be successful. Third, many youths do not have any exposure to agriculture, nor knowledge about the industry, thus they cannot make an informed decision. Therefore, moving from a public to a privatized extension system has created both challenges and opportunities for organizations. From a youth engagement perspective, some groups have emerged that have sought to address this challenge through creative enterprises. However, many of these enterprises are limited in their ability to begin and sustain success.

**UFAAS Action**

The NOFAIP group has been very successful in building their membership and services on offer to farmers. Growing from less than twenty registered members when they were established in 2010 to over 300 in 2017 when the study was completed. However, as the group continued to grow it found it necessary to engage new partners that were able to add value and build the capacity of its members. The NOFAIP group identified UFAAS as a recognized leader in AAS in Uganda. The UFAAS organization was viewed as a key actor by MAAIF and the training and capacity development opportunities with UFAAS were exceptional.

For these reasons, NOFAIP decided to join UFAAS as a dues paying member. By doing so they were provided access to many of the services and knowledge the UFAAS had available. The following steps were outlined by UFAAS: 1) Engaged with the NOFAIP group to better understand the needs of the organization; 2) Discussed existing capacities as well as desired capacities; 3) Identified training and support materials that UFAAS had available, or would be able to source on behalf of NOFAIP; 4) Coordinated training opportunities for NOFAIP members; 5) Provided ongoing support and capacity development opportunities as NOFAIP members required new or supplemental support; 6) Maintained relationships with NOFAIP leadership to collect best practices and information from NOFAIP extensionists that could be used to improve future training.

**Outcomes from Action**

The NOFAIP group has over 300 registered members, of which 84 are active in the operations and working to make a living in agriculture by providing services to farmers. The group has a wide range of services that are offered with crop spraying and agronomic feedback being the most frequently requested. Other services include plowing, planting, weeding, irrigation and water management, fertilizing, threshing, and providing market support are sought by farmers in Uganda. The plan of NOFAIP is to focus on crops and field services and to eventually expand into other areas, such as livestock. Many of the registered but currently inactive members are associated with the organization in anticipation of expansion into areas that are more suited to their background and interest.

Most of the active members do not necessarily come from a farm; however, several have had some experience with very small household gardens. The group is very inclusive with the only requirement being that members must have a willingness to learn and to work hard. Some of the members already have a university degree, others have not received any post-secondary education. Those with university degrees typically do not have a degree in agriculture. The result is the organization is exposing youth to agriculture, providing experience and applied knowledge, helping youth to earn a living, and teaching members the skills necessary to buy and operate their own farms. Furthermore, the farmers that engage the youth through employment are seeing positive results. Most farmers indicate that the youth are able to complete the work more efficiently using the best management practices they have learned through the efforts of organizations like UFAAS. Overall, youth are developing invaluable skills and knowledge that will help to ensure the sustainability of Uganda agriculture in the future, while the farmers they are working with are reaping the benefits of best practices, hard work, and greater success.

**Impact of Action**

In the field, the NOFAIP are applying the knowledge they have acquired from groups such as UFAAS. One example that was observed was the impact of working with a motorized

sprayer to apply inputs. One member of the NOFAIP can cover over four acres of orange trees in one day. In the past, using a manual hand pump sprayer would have only been able to cover one acre per day. The youth are also able to identify diseases and share this new information among other members rapidly. For some youth, there had been a challenge of citrus canker noted on one farm. As a result, the youth were able to quickly relay their newfound knowledge to other farmers they work with to counteract the citrus canker. Therefore, the farmers could use the youth to spray their crops before they suffered losses due to the disease. In the past, such an issue might have caused the whole crop in the area to be lost.

After seven years of experience, learning what works and what new members are interested in, the NOFAIP group has established itself as a viable alternative to other forms of traditional employment. Rather than work for large agricultural organization after graduating with a bachelor's degree, the group is actively recruiting members to assist farmers. The NOFAIP group offer hands-on experiences, a supportive capacity to develop youth, and a platform to support entrepreneurial efforts. Providing youth opportunities to develop a passion for agriculture should support the sustainability of the agriculture industry in Uganda. Based on their credibility with farmers, the NOFAIP group believe their approach can be replicated throughout the country and ultimately the continent of Africa.

### **Conclusions, Implications, and Recommendations**

The NOFAIP group views their membership with UFAAS as a critical component of their growth and success. UFAAS provides legitimacy to the group and gives them access to valuable capacity building tools and techniques. Additionally, UFAAS provides a linkage to agricultural policy in Uganda. As the group needs these insights to improve their viability or marketability, they indicated their confidence that UFAAS will be there to support them.

For UFAAS the challenge will be to continue to support groups such as NOFAIP and to look for opportunities to where the UFAAS network can be leveraged. For example, a network of representatives across the country would be very valuable for groups like NOFAIP that are looking to expand but do not have the contacts or capacity to do so. Having the appropriate network and knowledge would be invaluable in making these connections.

Although the results of this case study provide insights into the experience of the NOFAIP and UFAAS individuals involved in this research, the results are not intended to be generalizable, rather the study is intended to be a starting point for additional research. An associated limitation with the study is the small number of individuals included. Observations among more than one work team would add to the study trustworthiness and rigor.

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