

A Study on Female Organic Farmers' Use of Information Communication Channels for Acquiring Farming Innovations

Tzy-Ling Chen and Fang Li-Yang
Department of Bio-Industry Extension and Management
National Chung Hsing University, Taichung, Taiwan

Abstract

As rural women are becoming increasingly responsible for agricultural production, there is a pressing call for studies to understand the impact of female farmers' participation on agricultural workforce. Meanwhile, the availability of channels for acquiring varied information or training is considered closely related to maintaining female farmers' contributions and participation in agricultural production and rural community development. In addition, there require attentions paid to making development programs adapt to this changing demographic so that rural women can acquire the necessary information or training on new productivity-enhancing techniques and technologies. It is also vital to realize farm women's full potential by improving their access to resources, such as agricultural research, tools, credit, information technology, extension services, education and training, etc. Thus, this exploratory study investigated the innovation communication of female farmers in organic agriculture in Taiwan built upon theory of Diffusion of Innovations by Rogers (1995). Specifically, the following questions are researched: how do female farmers from rural communities proceed with the problem solving related to organic farming? What approaches do these women adopt to acquire up-to-date information or innovative techniques for improving their farming process? How is information acquisition associated with their participation and role change in organic farming business? The purpose of this research aimed to explore use of varied communication channels or approaches of female organic farmers to acquire innovations to develop and sustain their role as a farm manager.

A qualitative research employing semi-structured interview was applied in this study. The finding concluded from the present study revealed that female organic farmers indeed utilize a variety of channels or approaches for two types of innovations. Among the channels adopted, interpersonal communication is used the

most. Also shown is that for the agribusiness managerial knowledge or information of organic farming, only interpersonal communication is adopted.

Introduction

As true as it is our agriculture industry has changed dramatically over the past decades, so has the role of women in agriculture. Nowadays, there is an increasing trend towards what has been termed the “feminization of agriculture” throughout the world (Abdelali-Martini, et al., 2003; Deere, 2005). While the role and responsibility of women in agricultural production increase, the work of women in agriculture is no longer confined to support functions – in other words, being recognized as assistants to farming and agribusinesses, cooking and serving the food for social events and so on. There are more and more farm women in charge of the farm management either on their own or in collaboration with their husbands or family members in terms of making important decisions (Deere, 2005; Hamilton & Fischer, 2003). Similarly, in Taiwan, rural women are also working more in agriculture as own-account farmers than ever before. As the increase in the share of female participation in decision-making in agricultural production suggests that over time there has been some significant change in gender role and women’s visibility as farmers or as own-account workers in agriculture, there is a pressing call for studies to further understand the impact of female farmers’ participation on agricultural workforce.

In business, both innovative information and knowledge are recognized as the main differentiator between success and failure (Racside & Walker, 2001). As such, access to them is actually critical to sustaining the continuous growth of female farmers’ roles in today’s rural communities. Meanwhile, availability of channels for acquiring varied information or training is considered closely related to maintaining female farmers’ contributions and participation in agricultural production and rural community development. Despite receiving increasing attention, information communication issues have rarely been related to gender in agricultural context. Along with the increased expansion of female participation in agricultural production, Abdelali-Martini, et al. (2003) and Song and Jiggins (2002) further point out that extension services closely related to information communication and technology transfer need to take this reality into consideration in their program planning. There require attentions paid to making such development programs adapt to this changing demographic so that rural women can acquire the necessary information or training on new productivity-enhancing techniques and technologies. Therefore, to maximize the effectiveness of sustainable rural development, it will require addressing constraints

to women's productivity. It is also vital to realize farm women's full potential by improving their access to resources, such as agricultural research, tools, credit, information technology, extension services, education and training, etc. Taking into consideration these issues addressed above, this exploratory study investigated the innovation communication of female farmers in organic agriculture in Taiwan built upon theory of Diffusion of Innovations by Rogers (1995). Specifically, results of the current study are expected to answer the following questions: (1) how do female farmers from rural communities proceed with the problem solving related to organic farming? (2) What approaches do these women adopt to acquire up-to-date information or innovative techniques for improving their farming process? (3) How is information acquisition associated with their participation and role change in organic farming business? The primary purpose of this research aimed to explore the use of varied communication channels or approaches of female organic farmers to acquire innovations to develop and sustain their role as a farm manager.

Method

1. Participant selection

A qualitative research employing semi-structured interview was applied to collecting data from four female organic farmers in this study. The target group for investigation was selected based on two criteria. First of all, these female organic farmers must be the one engaging in decision making of farm management independently or cooperatively. Secondly, they must be the certified organic farmers whose products and farming process have passed the examination by one of four official organic agricultural certification organizations in Taiwan.

As for the selection process, the candidates targeted for investigation were first identified through online database search of Taiwan Organic Agriculture Information Center, and 35 certified female organic farmers were located after the search. Next, an informal interview was conducted with them for the purpose of making certain that they are the qualified candidates for survey and have the willingness to participate in this study. Consequently, four female organic farmers were interviewed for data collection and verification of data analysis.

2. Interview protocol

Regarding the innovations aimed for analysis, three types of innovative information or knowledge are identified including: the basic information or knowledge in relation to organic farming, crop production techniques or information

specifically related to organic farming, and agribusiness managerial knowledge or information of organic farming. In addition, communication channels or approaches were a key focus for analysis in the current study, given their important role in learning varied innovative information, knowledge, and technology in need of making a success organic farming and critical to the social construction of knowledge among female organic farmers. Based on Rogers' theory of Diffusion of Innovations, varied channels of innovative information diffusion were divided into four systems, ranging from individual-based and group-based interpersonal communication systems as well as traditional mass media and Internet-based media communication systems.

In reference to interview protocol, topics addressed in the guided interview consist of: (1) reasons for becoming an organic farmer, (2) besides yourself, who else is also involved in decision making in terms of farm management, using what types of information, (3) how different innovative information, knowledge, or technology related to organic farming are acquired, (4) problem solving processes in relation to organic farming, both the technological and managerial issues in management of crop production, farm, and agribusiness.

3. Data analysis and verification

The data analysis technique employed was a general inductive approach (Silverman, 2000), including data reduction to first segment and condense varied text data into meaningful "category" format, data display to establish clear links between research objectives and summary findings derived from the distilled raw data, and conclusion drawing to develop interpretations about the underlying structure of examined experiences or processes evident in the raw data. As for issues of analytical validity, evidence provided in this study was drawn from multiple sources and based on different data collection modes, such as indepth interview, self-reported responses, field notes, and secondary data collected from the field. In addition to triangulation of data sources and modes, member check technique of revisiting data as many times as necessary to cross-check or verify these emergent conclusions with four interviewees was adopted (Miles & Huberman, 1994).

Findings and Implications

1. Innovation communication channels in use

The interpersonal communication, both individual- and group-based systems were used by all for all different kinds of innovations in spite of variances in knowledge, information, and technical attributes. Although some media channels

were also adopted for finding information, it appears that interpersonal communication plays a more crucial role of all when it comes to female organic farmers' innovation diffusion. Meanwhile, according to the participants in the current study, most of the modern channels pertaining to the Internet-based communication system were not in use except the print materials, and television to some extent.

When aiming to bring behavioral change of the female organic farmer targets in innovation adoption practices, it is suggested to reach them intensively through interpersonal communication channels while providing them with enough opportunity to evaluate the innovation information or knowledge in order to build their confidence on the importance of information they receive and to incorporate into their farming practices.

2. Link of types of innovations to communication channels

Moreover, the main finding concluded from the present study reveals that female organic farmers indeed utilized a variety of channels or approaches comprising both interpersonal and media communication systems for two types of innovations, covering the basic information or knowledge in relation to organic farming and crop production techniques or information of organic farming. Among those approaches adopted, the interpersonal communication system was used the most. Also shown is that for the agribusiness managerial knowledge or information of organic farming, only interpersonal communication was employed by the interviewees of this study.

While previous communication research confirmed the impact of attributes of "innovation" message, communication channel, and nature of exposure on the speed and direction of the message's transmission (Rogers & Kincaid, 1981), it is also identified an interaction exists between the attributes of "innovation" message and communication channel based on the present study results.

3. Problem solving in practice

Analyses of female organic farmers' problem solving process in this study echoed the nature of problem solving illuminated in earlier references that this process involves the socially constructed knowledge instead of solely using the information or knowledge learned. Participants depicted when encountering problems, in addition to finding information or taking advices from others, there are a lot of "discussions" and "dialogues" with themselves, peers, co-workers, family, or experts, etc. during the implementation of information or knowledge acquired for coping with the problem. In particular, they cited such interpersonal and introspective interactions as the key way to overcome difficulties.

Although the disseminated information was also recognized as successfully

increasing the level of knowledge and awareness among these female organic farmers in the first place, it is also critical to pay attention to the way problems solved characterized as similar to the process of “social construction of knowledge.” In other words, sporadic diffusion program of innovation information and knowledge may not be enough to bring a change. Moreover, it is equally important enabling them to implement their awareness or what they have learned in the beginning through an intensive intervention with participatory approach in certain intervals or in progressive manner to achieve the expected change

4. Role of social network in innovation communication

Existing evidence derived from the data analyses of current study further suggests different social networks in which female organic farmers were involved contribute to their innovation communication. It was reported by female organic farmers under investigation the importance of having personal contacts and building trust through quality relationships over time, in order to have a genuine exchange of innovation information that results in some form of change.

This discovery of effects of social network on information or knowledge absorption is also verified in the research findings of Innvaer, Vist, Trommold, and Oxman (2002). Furthermore, Oliver and Liebeskind (1998) differentiate the roles played different network relations in terms of the transfer of different kinds of knowledge transmitted. Therefore, in considering the pivotal role of interpersonal relationships in innovation communication of female organic farmers it is necessary to acknowledge the importance of social network, both personal as well as organizational or community networks when developing innovation diffusion programs.

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