
Management Activity of Farm Women in Imbulpe DS Division in Sri Lanka: A Household Level Analysis

S. D. D. Rathnachandra¹, S. H. P. Malkanthi²

Sabaragamuwa University – Sri Lanka, Department of Agribusiness Management, Faculty of Agricultural Sciences

E-mail: ¹dilnirathnachandr92@gmail.com / ²malkanthi@agri.sab.ac.lk

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Abstract

Women empowerment and gender equity are two important aspects of the sustainable development of a country. As Sri Lanka is on the way towards sustainable development, this study was conducted to assess the situation of women farmers' empowerment in Imbulpe Divisional Secretariat (DS) division of the country. A sample of 145 women farmers was randomly selected for the study, from five selected Grama Niladhari (GN) divisions. Data was collected from a field survey using a pre-tested, self-administered questionnaire survey from April to July 2019. Empowerment was analyzed using the empowerment framework used by Rahman and Naoroze in 2007 in the study of "Women Empowerment through Participation in Aquaculture" with necessary modifications. Data analysis was conducted using descriptive statistics, correlation analysis and multiple linear regression analysis.

Results revealed that majority of the women farmers were middle aged, married and had children. Furthermore, most of them had education up to secondary level. While average family size was four, average farm size was 1.25 acres. They had around 16 years of farming experience. The average monthly income of them was 25,000.00 LKR whereas 20% of it was from agriculture. The main sources of empowerment of women farmers were the Agrarian Service Center (55%) followed by village organizations/societies (30%) and micro-finance institutions (26%). Furthermore, women empowerment index was 0.65. It is a moderate level of empowerment. However, there were women farmers under only three categories of empowerment levels: low empowerment (4.1%), medium empowerment (58.5) and high empowerment (36.1%). Out of the socio economic factors; age, education, family size, land size, number of training programs participated, monthly income, experience in agriculture and number of organizations participated, education and number of training programs attended had significant and positive effect for the empowerment. Therefore, proving of timely important agricultural education and training programs, better micro finance programs and agricultural credit facilities will be able to enhance the empowerment level of the women farmers of this area furthermore.

Key words: Women empowerment; sustainable development; gender equity; farming activities; Sri Lanka

Introduction

The women empowerment is a basic requirement according to the Sustainable Developmental Goals (SDGs) to the emergence of poverty alleviation programs in a particular country (Pabuccu, 2017; Meetei et al., 2016; Sraboni et al., 2014). Women empowerment is a process of enhancing the freedom of decision making within the family, access to assets and resources, social

participation, freedom of mobility and spending ability (Paul et al., 2016; Rahman and Naoroze, 2007; Malhotra et al., 2002). The potentials for agriculture accountable for the buildup of a proper avenue to unleashed the well-being of people through food production (Ibharhokanrhowa, 2016; Negi and Anand, 2015).

In Sri Lanka, more than half of the working population is constituted of women. But out of

the total working age population, the share of employed women is only 18%. At the same time, around 80% of the active women is from the rural sector. The rural sector also recorded the highest unemployment rate of women compared to other sectors. The unemployment rate among rural women is 7.3%, which is higher than the unemployment rate for both urban women (6.2%) and estate women (4.1%). Sri Lanka is predominantly an agricultural based country with 82% of the households still in the rural sector. Women constitute 50.7% of the Sri Lankan population are considered to be a valuable resource potential needed to be in the rural agricultural sector. Women contribution to agriculture is gradually increasing to the national economy. Most of the Sri Lankan women are participated in agricultural sector rather than industrial sector (Annual Labor Force Reports, 2017; FAO, 2017). Imbulpe DS Division basically based on the agriculture rather than service sector and women support for the farming activities alongside with men (Census and Statistics of Agriculture Report – Rathnapura District, 2013/14). Women perform numerous labor-intensive jobs in agricultural production. Such as land clearing, land tilling, planting, weeding, fertilizer/manure application, harvesting, food processing and livestock management (Malkanathi, 2016; Gamhewage et al., 2015; Sireeranhan, 2013). Measuring the empowerment status of rural women and food production is timely important to make future decisions for achieving the sustainable development related with Social, Economic and Environmental aspects. Most of the researchers are only focusing on measuring the women empowerment and diagnose the factors of behind the empowerment of them. But in this research mainly clarify about the women which engaging in farming activities how create deviation on agricultural sector through achieving the overall empowerment in the society. Rural women are highly contributed to the agricultural activities in Sri Lanka. But with most of them don't have necessary power and facilities to do the work well. In some households, men are working in cities. Women have to do both household activities and agricultural activities. If they have sufficient

level of empowerment, they can contribute to rural development up to a significant level. However, it is important to understand the issues related to gain empowerment of women farmers. These are the key aspects which constitute the attention on this study. Therefore, this study was conducted to find out the situation of empowerment of women farmers and also what are sources of empowerment relevant to the women farmers in the study area. Empowerment was calculated by using five dimensions according to the literature findings related to the field of empowerment. For example, one study standardized four dimension-specific scores used that each ranged from 0 to 1, and then added together these four scores to compute a global empowerment score (Jejeebhoy and Sathar, 2001). Some indices construct global measures using weights provided by the researchers (Alkire et al., 2013). A better approach to create global scores is to weight empowerment dimensions according to their potential importance by using specific analytic methods (Parveen and Leonhauser, 2004). Empowerment calculated by using five dimensions according to the literature findings relevant to the field of empowerment.

Research Methodology

Imbulpe DS Division is located in Rathnapura district in Sri Lanka. This research is descriptive in nature and also using deductive approach. Therefore, it has the ability of providing systematic, logical, organized and rigorous method to find solutions for the research problem. A questionnaire survey was used as the main data collection method in order to collect primary data. The respondents of the research were the women farmers in Imbulpe DS Division. Data for this study were derived from a population size of two hundred thirty three (233) active women farmers in the study area.

According to the formula calculation, sample size was 145 to minimize sampling error of the study. Respondents from the 50 GN divisions of the study area were randomly selected from the clusters created in order to ensure adequate representation of every GN division of Imbulpe DS

Table 1. Dimensions of empowerment and their measurement

Empowerment Dimension*	Items used	Responses and assigned scores	Possible score range
Decision making within the family	10	0 – No influence, 1 – Low influence, 2 – Moderate influence, 3 – Full influence	0 – 30
Spending ability	10	0 – No ability, 1 – Low ability, 2 – Moderate ability, 3 – Full ability	0 – 30
Access to resources	8	0 – No access, 1 – Low access, 2 – Moderate access, 3 – Full access	0 – 24
Freedom of mobility	7	0 – Not at all, 1 – Rarely, 2 – Occasionally, 3 – Frequently	0 – 21
Social participation	7	0 – No participation, 1 – Seldom participation, 2 – Occasionally participation, 3 – Frequent participation	0 – 21

*Developed based on the study of Rahman and Naoroze in 2007.

division there by giving each woman farmer the same opportunity to be chosen. This is in view of the fact that the streets and the houses are not systematically numbered. The respondents were taken as a homogenous group and purposively selected only five representing GN divisions. The random sampling technique was adopted in the selection of respondents across the 50 GN divisions in the study area.

These include the use of survey method, which is quantitative as a basic guideline on the study was subject to content analysis. This presents a triangulation of methods. The survey instrument for data collection involved the use of a pre-tested questionnaire, while interview guides were developed. Questions were structured in such a manner as to achieving the aim at answering the basic questions about the study. Data were analyzed with the use of univariate (frequency distribution and simple percentages), bivariate (chi-square) and multivariate (multiple regressions) statistical tools. A pilot study was undertaken to determine the ability of the questionnaire to elicit the required information about the research aim to be achieved and avoid ambiguity in further data collection process. The pilot study was conducted with 10 copies of the questionnaire.

In order to make a comparison among the five measures of empowerment, a unit score was represented by the following formula:

$$\text{Formula 1. Unit empowerment score} \\ \text{Unit empowerment score} = \frac{\text{Mean score of a particular dimension}}{\text{Maximum possible score of the dimension}}$$

Formula 2. Overall empowerment

$$\text{Overall empowerment} = \frac{\text{Total empowerment}}{\text{Number of respondents}}$$

Formula 3. Empowerment Index

$$\text{Empowerment Index} = \frac{\text{Total empowerment}}{\text{Total score of dimensions}}$$

Seven socioeconomic variables were selected to determine their relationship of rural women's empowerment through participation in Agriculture. The variables were: age, level of education, family size, and size of the farm land, number of training attended, experience in agriculture, number of participated organizations of the village, number of extension services used and number of credit facilities used.

Results and Discussion

Sources of farm women empowerment:

Analysis done by the using of Descriptive statistics-frequency analysis. Sources of empowerment variables are: (a) Agrarian service center; (b) village organizations/Societies; (c) Micro finances Institutions; (d) Bank loans and loan providing institutions; (f) Mass media; (g) Neighboring farmers.

According to the findings in the Table 2, Agrarian service center is the first source – 55.2%, Village organizations/ societies are the second source – 51.7%, Micro finance institutions are shown as

Table 2. Different sources of farm women empowerment (n = 145)

Selected Sources	Type of source	No	%	Rank
Agrarian Service Center	Internal source	80	55.2	1
Micro finances Institutions	External source	44	30.3	5
Bank loans & loan providing institutions	External sources	38	26.2	6
Mass Media (TV, Radio, Newspaper)	External source	48	33.1	4
Village organizations/ societies	Internal source	75	51.7	2
Neighboring farmers	Internal sources	70	48.3	3

Table 3. Stepwise multiple regression analysis showing contribution of five empowerment dimensions to overall empowerment score (n = 145)

Model	Dimension entered	Multiple R	Coefficient of determination R ²	Percentage of variation
1	Freedom of decision making within the family	0.871	0.756	75.6
2	Social participation	0.927	0.857	10.1
3	Access to resources	0.967	0.935	7.8
4	Freedom of mobility	0.985	0.970	3.5
5	Spending ability	0.99	0.99	3.0

fifth source – 30.3%, Bank loans & loan providing institutions least important source for the women farmers – 26.2%, Neighboring farmers are the third source – 48.3% Mass media shown in fourth source – 33.1% according to ranking scale details. Most of the respondents are identifying Agrarian Service Center activities have better support to their empowerment. Least supported organization is bank loans & loan providing institutions, because 81.4% of women farmers are not willing to access credit facilities. But Agrarian Service Center is a better internal source and mass media is a better external source.

Overall Empowerment = 82.73103

Empowerment Index = 0.6565

Among five dimensions, freedom of decision making within the family had been explained highest percentage variation to the empowerment score. And also, spending ability showed the lowest percentage variation regarding the empowerment score.

According to the findings in the Table 4, 58.5% of women were obtained in medium empowerment situation. Sample shows that there were

no respondents at very low empowerment level, 4.1% of respondents were indicated as low empowerment and 36.1% of respondents were high empowerment situation.

Stepwise multiple regression analysis shows the contribution of five empowerment dimensions to overall empowerment score (Table 3).

Among the five dimensions, freedom of decision making within the family had been explained the highest percentage variation in the empowerment score. And also, spending ability

Table 4. Status of overall empowerment according to the category basis

Categories and score range	Percentage value for each category
Very low empowerment (up to 21)	0.0%
Low empowerment (22 to 42)	4.1%
Medium empowerment (43 to 84)	58.5%
High empowerment (Above 84)	36.1%

(Categories are based on the Rahman and Naoroze, 2007).

Table 5. Relationship between rural women's empowerment and selected characteristics (n = 145)

Independent variable	Correlation coefficient (r)
Education	0.644
Size of the farmland	0.376
Experience in Agriculture	0.121
No of organizations participated	0.243
No of training attended	0.477
Age	0.307
Monthly income	0.136

ability within the family involves to contributing more weight to the empowerment than the other factors such as, spending ability, social participation, access to assets and resources and freedom of mobility. Other factors which are responsible for the empowerment are highlighted as education, monthly income and the number of extension services participated.

Under impact on empowerment, lower access to modern agricultural techniques engendered by improper institutional participation failures. They have not enough money to spend for the

Table 6. Stepwise multiple regression analysis showing variation of women's empowerment score explained by different factors (n = 145)

Model	Variable	Multiple R	Coefficient of determination R square	Percentage variation expressed
1	Education	0.734	0.620	62.0
2	No of training attended	0.779	0.601	60.1
3	Size of the farmland	0.793	0.536	53.6
4	Monthly income	0.799	0.628	62.8

ty showed the lowest percentage variation on the empowerment score.

Factors affecting women Empowerment: Analysis done by the using of Descriptive statistics and step wise multiple regressions analysis. Independent variables were Age, Education in years, Family size, Land size, Number of training attended, Monthly income, Experience in Agriculture in years, Number of organizations participated in the village, Number of extension services used, Number of credit facilities used. Dependent variable was empowerment score. Other factors which were relevant to the empowerment score, consider their relationship strong from the correlation coefficient (r) > 0.05.

Conclusion

This study revealed that women farmers in Imbulpe DS division are medium empowered in their efforts in food production. Decision making

modern farming equipment and poor knowledge about the innovative agriculture.

However, patriarchy was not found to be completely absent from the constraints faced by women farmers as land ownership and accessibility aspects of it. Because most of the women farmers gain their farmland through their husbands.

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