

POTENTIALS OF PRIVATE DAIRY COOPERATIVE IN PROMOTING WOMEN EMPOWERMENT IN RURAL AREAS OF BANGLADESH: A STUDY ON KAZI SHAHID FOUNDATION

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ABSTRACT

Although Bangladesh has changed a lot due to economic development, most of the people of Bangladesh still live in villages. And, the rural economy of Bangladesh is still dependent on agriculture. Beside farming and agricultural activities, a large portion of the rural population is involved with dairy production. Our rural women are largely engaged in agriculture as well as with dairy farming but often their contribution is unrecognized. On the other hand, due to the traditional rural society of Bangladesh being highly dominated by men, rural women are still lagging behind from earning income and getting economically empowered. Thus, many non-governmental organizations (NGOs), local, national and international level donor agencies are aiming to change the lives of these rural women of Bangladesh. One of the popular approaches practiced by different organizations to empower the rural poor women is through lending them cash money. However, there are some other non-profit organizations as well who provide other means like assets and services (for example, dairy cooperatives) to empower women rather than providing cash money. This paper tries to explore whether the initiatives of a private dairy cooperative offers an organizational approach for promoting women empowerment in rural areas of Bangladesh. From the literature, four interconnected factors have been identified as the operational indicators or the dimensions of women's empowerment to understand the impacts of a private dairy cooperative on its women beneficiaries. This research used multiple methods (in-depth interviews, focus group discussion, survey) to explore the contact points and interactions of different dimensions of women's empowerment through studying a private dairy cooperative (Kazi Shahid Foundation). The research findings support that the private dairy cooperative could make a positive impact in enhancing the economic, physical and social assets of women, as well as developing their mobility and leadership qualities. The beneficiaries of the project showed highest participation in economic activities followed by access to savings, purchasing and marketing activities as well as decision making capacity while achievements in other areas of empowerment were also quite decent. Importantly, the private dairy cooperative played the key role in empowering rural women in the study area. This research finding asserts that more planned projects and dynamic principles of staff and officials of a private dairy cooperative are needed for empowering rural women as well as to achieve sustainable development and eradicate the overall economic adversities in the rural areas of Bangladesh.

KEYWORDS: Private Dairy Cooperative, Women Empowerment, Rural Development, Kazi Shahid Foundation (KSF)

1. INTRODUCTION

Empowerment of women has become a priority right now of development agencies for bringing equitable development in the society. Women have been deprived of and secluded from many things worldwide. But now, from private to public domains, social, economic and political arenas, participation and opinions of women are being taken with much more importance than before. More and more agendas, constitutional commandments and goals are now being taken in this manner. Though women's increasing percentage of joining the workforce eventually hasn't eliminated the overall gender disparity that much but it is very well recognized that when more women work, the economy grows. For example, according to the International Monetary Fund (IMF), increasing the female employment rates in OECD (Organization for Economic Cooperation and Development) countries, could boost GDP by over USD 6 trillion (Women in Work Index, 2018). So empowering women and dismissing gender discrimination have been the key focuses among many other to achieving the 2030 agenda for Sustainable Development. Since worldwide it is well realized that women's economic empowerment is the heart to achieve equality and that their economic empowerment automatically leads to the overall productivity, and increase in economic diversification. Therefore, Governments, NGOs, development practitioners of many countries all around the world altogether are working and investing in a great aperture in women's education as well as in all other factors that can help and prepare them for their future leadership.

Bangladesh, being a country full of people who possess a very patriarchal and superior mentality towards women, even after all the changes in the customary patriarchal pattern, it is still very difficult to bring out the worst sufferers of the male-dominated society- poor rural women. The patriarchal system in Bangladesh, isolates women within their families and gives men control of most economic resources (Schuler et al., 1996). Even though the patriarchal and gendered discriminatory structure is changing, especially in the modern urban areas, but the scenarios of rural areas of Bangladesh is still very grievous. They are mostly secluded in the name of purdah and trapped within the household, performing their traditional unrecognized roles as mothers and wives. But, some of them are earning money and they are engaged in sectors like - agriculture, farming, sewing clothes or producing minimal handicrafts. These women mostly tend to be illiterate or half-educated, have least control over their own income or ability to make and take decisions in the family or have no saying in the matters of family planning; in a word, they have less or no right over themselves. As a result, their husbands or other men in the family get the chance to exploit them and forcefully take away the minimal money that they make.

The currently prevailing classical picture constitutes a patriarchal system that creates a rigid division of labor that controls women's mobility, roles and responsibilities, even sexuality and thus causes problems in the path of achieving women's empowerment. A woman's status is derived from her family most of the time and her traditional responsibility is the maintenance of her family as a social institution, her task is to ensure the continued existence of following generations (ADB, 2001; Eck, 2014). The patriarchal system dominates, oppress and exploit women through the social structures and practices, thus put them in an inferior position to men, controlling them in almost everywhere, gets excluded in both private and public spheres even

though they play an important role in the economic and social development (Eck, 2014). In the rural areas of Bangladesh, the situation of women is worse than that commonly comes in front of us. These clearly gendered defined roles give almost no space for women's development and indirectly for the overall development of Bangladesh. Further, we all know that without developing the situation of half of the population that is women, no development can be achieved eventually. Hence, it is urgent to defend women and girls from this patriarchal chain (Sultana, 2011; *ibid*).

Since, empowerment of women plays as the key element and solution for many problems in the rural areas, many non-governmental organizations (NGOs), local, national and international level donor agencies are aiming to change the lives of these rural women of Bangladesh. These NGOs, microcredit giving organizations, government initiatives and aid agencies are working to empower the rural poor women through lending them cash money, also providing education through organizing workshops and training with a motive to make them solvent and empowered.

Besides, there are other non-profit organizations as well who provide other means like assets and services (for example, dairy cooperatives) to empower women rather than providing cash money. These organizations believe in nurturing the capabilities of the poor rural women and giving them the chance to empower. Providing resources of dairy cooperatives (cattle) to the rural poor people instead of lending direct monetary means to them may appear very useful for the upliftment of rural people because dairy production plays an importance role in the rural economy of Bangladesh. According to Bangladesh Bureau of Statistics, 5.88% of the sectoral share of GDP at current prices came from Animal Farmings (Bangladesh Bureau of Statistics, 2022). It is well known that women contribute significantly to this activity. Again providing dairy cooperatives instead of lending them money gives them the real opportunity to productively use the cooperative and not wasting the money instead.

While it is recognized that most of the livestock management is carried out by women, nevertheless, little research has been conducted on the role of dairy cooperatives on women's empowerment or the role of women in dairy farming in rural areas of Bangladesh (Manish & Tanaka, 2007). Further, it is a fact that only handing over a cow to one member or assembling the members to the respective resources to make their livelihood is not enough. It is important to keep the aspect of sustainability of any program in mind for the long run in avoiding the risks of worsening poverty; therefore details of scale, technology, skills and experience matter (Smith, 2004). Kazi Shahid Foundation (KSF), located in the Panchagarh district of Bangladesh tends to empower the women through providing rural women cows, not cash and other supports like medical facilities, insurance policy, easy loan repayment system by selling milk and cow dung to KSF rather than exchange of cash. Therefore, this study has selected Panchagarh district of Bangladesh as the study area and intends to assess the impact of KSF on women's empowerment and whether or how dairy cooperative farming empowers women. In particular, this paper explores the impacts of private dairy cooperatives on the women beneficiaries and the potential of it for achieving women's empowerment in the rural areas of Bangladesh. Accordingly, this paper tries to find out whether a private dairy cooperative offers women empowerment in rural areas of Bangladesh.

2. KAZI SHAHID FOUNDATION (KSF): ILLUSTRATION OF THE CASE OF A PRIVATE DAIRY COOPERATIVE

The Kazi Shahid Foundation (KSF) which was established in August 2005 is developed with the commitment of “Establishment of a Society based on Organic ideology” and main objective of the Foundation is to eradicate poverty in the society through implementation of organic concepts. Initially KSF was an affiliated cooperative of Kazi and Kazi Tea Estate Limited (KKTEL) and started dairy farming among its workers and neighbors. Intention to develop the Foundation was to serve the dual purpose of enabling its members to improve their lives, a core concern of KKTEL’s holistic management philosophy, while also providing a ready supply for KKTEL’s growing need for cow dung.

KSF is based on an innovative approach; it provides cows to its members, not cash. And, the members repay the “loan” in easy, daily installments of milk and cow dung rather than in cash. KSF plans to process and market all milk output received from its members and also to use any excess cow dung output to produce organic fertilizer in the open market.

KSF is still at a very early stage with only 2383 members holding 6726 cows, but given its member-friendly approach KSF envisions infinite growth. KSF is organizing itself to support such strong interest initially in Panchagarh district, but eventually hopes to expand countrywide. The replication of such a people-friendly model will not only help enterprising destitute persons, but also help to mitigate the country’s dire deficit of good, natural milk and organic fertilizers.

The vision of KSF is the socio-economic development of the rural people by sustainable and responsible livelihood and lifestyle with the mission of eradicating poverty through rural farming and entrepreneurship. The Foundation requires the integration, participation and thus empowerment of the rural people. It implements itself through various strategies, such as – mobilizing the community people, facilitating the community people to organize into group, increasing participation of women, providing support to improve technical and management skill of the community people on organic, facilitate to generate saving to create community capital fund, distribution of cows on contractual basis and recovery by cow-dung and mild rather than cash. Through organizing many programs – Education Program, Biogas Program, Organic Farming Program, contractual Dairy Cooperative Program, Vermin Compost Development Program, Training Program and so on - the Foundation intervenes and implements their initiatives to eliminate poverty from rural people of Bangladesh.

While exploring the case, this paper particularly highlights the impacts of dairy cooperatives provided by KSF on the rural women beneficiaries along with the role played by the KSF in developing the overall economic situation as well as alleviating the poverty in Bangladesh through ensuring women’s empowerment.

Table 1: Information on KSF dairy cooperative program

Information regarding group	Total
● Total number of Branches	8
● Total number of Up-Zilla	6
● Total number of Village	195
● Total number of Groups	226
● Total number of group members	2383
● Total number of Cow Loanee members	1588
● Group Savings balance (In TK.)	13,240253
Information regarding distribution of cows	
● Number of cow distributed	6726
● Number of cow repayment	5138
● Number of cow balance	1588
● Amount of loan distributed for cow (In TK.)	30,10,41,159
● Cumulative quantity of cow dung collected (In KG)	3,23,46,108
● Cumulative quantity of milk collected (In liter)	19,56,579
● Daily cow dung production (In KG)	30,000
● Daily milk production (In liter)	5,000
● Total loan outstanding balance (In TK.)	7,77,82,583
● Risk Management Fund balance (In TK.)	1,769,080

Source: Authors, 2018

3. CONCEPTUAL FRAMEWORK: LINKING DAIRY COOPERATIVE WITH WOMEN EMPOWERMENT

As the primary motive of KSF is to empower women through their dairy cooperative program, so first of all, it is important to define the term ‘women’s empowerment’. Women empowerment means that the women would be able to increase their economic potency and self-confidence on participating, planning and implementing the activities (Yogendrarajah, 2012). Women empowerment is giving lawful power or authority to perform and can be defined as a process to enhance women’s capacity for self-determination or agency to meet their practical and strategic

needs, through which women achieve equal rights, power and resources with men in society and in the economy (Drolet, 2010; *ibid*). So, following the above definitions that have been produced from experts, empowerment of women can be defined as the change through which women start to gain power, become able to make meaningful choices, have control over lives and become confident enough to depend on no one but herself, thus empowering herself.

3.1 Dimensions of Women's Empowerment

We acknowledge that the concept of women's empowerment is elusive for a variety of reasons (Mason, 1984, 1987; Hashemi et al., 1996), hence an assessment of how dairy cooperative can increase women's empowerment requires that whilst economic solvency is an important determinant of empowerment, it is not sufficient as a measure. Indeed, along with the economic development of women, other factors like women's involvement in the household decision making, their improvement in the human and physical capitalistic aspects determine their whole level of gaining empowerment.

In a study, it was found out that dairy production with the help of dairy cooperatives have the potential to reduce poverty, generate income and thus increase empowerment (Uddin et al., 2012; Islam et al., 2019). Another study of Mahajan and Powar (2012) revealed that 100% respondents have agreed that their income has increased, 63% of them agreed that their economic condition has changed, 62% respondents agreed that they purchased home appliance; 55% people told that they are preferring private hospital health services which means they are able to pay their charges, 75% people told that they go to taluka place or district place for hospital services what shows that they are able to pay comparable more charges for health services, also saying intergenerational change in education is showing significant; 72% people agreed that the development of village is happening – all these are due to the milk business with cooperatives and 70% people agreed that the dairy units can play vital role in rural development. Niketha et al. (2017) described in their research paper that the engagement of women with Women Dairy Cooperatives (WDCs) positively impacted them, regarding their income, family assets, necessitated the opening of their personal account in bank, control on expenditure and savings of households and thus gave them the confidence to express their power and rights. Again it was found out in the same paper that the monthly income and annual income from dairying positively correlated with the respondent's empowerment; the women used the income for meeting personal needs, food, educational, social security, purchased new things for the household, family members and herself and also improved their home condition; 42.50 percent of the respondents gained medium level of the ability to take decisions while 36.67 percent of them had high and low levels of the ability to create decisions in the household that indicates that most of the members were having either medium or high levels of empowerment in this aspect; again through the engagement with dairy cooperatives, the members received the sense of technological empowerment. It was found that more than 55.00% of the respondents had medium level of technological empowerment while nearly 24.58% had low and 20.42% of them could make to the high level of technological empowerment that indicates that women gained medium level of technological ideas and knowledge related to dairying due to the role of cooperatives played in organizing training, demonstrations etc. that tended to promote

technological acquisition behavior regarding clean milk production practices, machine milking, timely vaccination, ideas of animals illness, de-worming and others; further it was found that because of supplying milk to WDCs (Women Dairy Cooperatives), at a common point, rural women started involving themselves in gathering and meetings that in turn resulted in increasing more interaction and participation. The running of dairy cooperatives helped the women in acquiring freedom of speech, mobility and involvement in decision making both in home and community. Therefore, the cooperatives have successfully increased the social empowerment of rural women. The study of Dohmwirth and Hanisch (2017) found out that dairy cooperatives can promote women's leadership but there seems to be a lack of education and training. The activities of the dairy cooperatives function quite the same like NGOs of Bangladesh. So in a study on investigating the success of NGOs in Bangladesh in increasing awareness among vulnerable women, it has been found out, 73 per cent of the research participants mentioned that their decision-making capabilities had improved, and their husbands gave their opinions greater importance and some of them also claimed that they now played an active role in all aspects of household management and budgeting; their husbands even discussed economic matters with them including the cultivation of land (Sultana & Islam, 2009).

Therefore, in order to justify whether credit programs empower women by strengthening their economic roles, increasing their ability to contribute to their families' support, and that also if they empower women through other mechanisms, Hashemi et al. (1996) drew some operational measures of empowerment in their paper and each measure attempted to separate those women who stand out as being relatively more empowered than most other poor women. So, somewhat based on their variables in the paper, some relative inter-linked operational dimensions of women's empowerment have been generated here as well that are congenial for this study. For that reason, the following inter-connected four factors have been recognized here as the operational indicators or the dimensions of women's empowerment. This paper attempts to find out the result of whether women have become empowered in the subsequent dimensions and the degrees of their changes and progress after their involvement in the KSF. The combined findings will be analyzed later whether they are wholly empowered or not through their engagement with the dairy cooperative project of KSF based on the discussed operational variables of women's empowerment.

3.1.1 Economic empowerment indicators

In this dimension, women's ability and control over income and assets as well as control over income-generating activities has been measured at both individual and household level. In judging 'empowerment', economic or monetary affluence works as the leading factor. Household cash income in Bangladesh is normally controlled by men and women's involvement in income-generating activities is also under their control. Reduction of poverty is not possible unless women achieve economic independence (Islam et al., 2019). Therefore, to measure the economic empowerment of women, the chosen economic empowerment indicators are: Economic security, mobility, women's ability to create savings and their rights on the savings, access and control over resources and lastly ability to make purchases.

- Economic security: To measure the economic security of the members of KSF in this paper, one point is that if the female respondent gains access in the property, land or purchases new land or becomes economically able to contribute in the household expenditure or becomes capable to lend money to other people in the community as well as takes loan and has the ability to repay the loan timely or her household total income increases than before with increasing investment in other productive things, she would be classified as ‘economically empowered’.
- Ability to create savings and rights on the savings: The matter of creating savings and having rights on them comes with the change and increase of economic condition. To find out the impacts of dairy cooperatives as to this aspect in this paper as well, in the household, if there is a rise, visible in the female member’s savings, also her right on the savings (places of the savings, her decision of where to spend the cash) and rise in the amount of total yearly savings, then she would be identified as ‘economically empowered’.
- Access and control over resources: If the female respondents answer to have full or equal access and control over the household resources, their earned money, land, cattle, milk or cow dung in other measuring codes, they would be classified as ‘economically empowered’.
- Ability to make purchases independently: This paper seeks to know if the members are earning fair and becoming capable to buy things barring the essential things to live life, hence the progresses of the female respondents will be coded and measured in other responses and if they earns enough or moderate to buy new clothes, new cattle or other things for earning (rickshaw, van, sewing machine, boat, fishing net, agricultural or cottage industrial equipment), repairs home, purchases new things for the household or for herself (jewelry, TV, radio, mobile phone, table, chair, wardrobe, bed and other things), they will be classified as ‘economically empowered’.

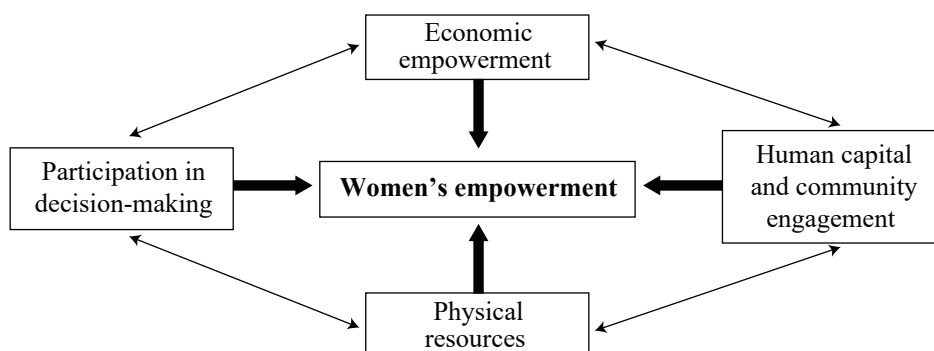


Figure 1: Dimensions of women’s empowerment

Source: Authors, 2018

3.1.2 Participation in decision making

The power and ability to make decisions in the household and community is another significant dimension of empowerment. This dimension includes whether the female respondents have the access in the decision-making in the household (use of the household money earned, use of cash savings, decision on taking loan, spending money for children's education or healthcare of family members, decision on the use of contraception, having children, marriage of children and others) or not and if the answers are coded as two (2) or three (3), they would be classified as 'empowered in decision-making process'.

3.1.3 Human capital or capacity or improvement and community engagement

Human capital refers here to the self-development and overall learned empowerment of the respondents. This dimension accumulates: knowledge, confidence and freedom, mobility and their engagement in the community.

- Knowledge: This paper tries to see as well like the previously mentioned research paper of whether the female respondents are being able to gather proper knowledge regarding-preserving milk, selling cow-dung, preparing fertilizer from cow-dung, making fuel using cow-dung, ideas about cow rearing and cow's well-being or not and if the majority of the responses are coded as one (1), they would be recognized as 'empowered according to their human capacity'.

- Confidence and freedom: The answers will be counted on the basis of the women feeling confident to talk to outsider men, dealing with the outsider world alone, breaking patriarchal norms, taking financial decisions alone or buying a new cow alone, owning land ownership, overcoming challenges, shocks and other decision making things that proves their confidence and freedom to choose and conduct. This section will be measuring the respondent's coping mechanisms and their ability to solve crucial situations without anyone's help. The women will be regarded as 'empowered' if the majority of the answers are coded as one (1).

- Own control over mobility: Whether there is an improvement in the degrees of the female respondent's mobility (moving alone outside their village or urban area, attending KSF meetings outside their area) or not will be measured here. The respondents with the score code of one (1) would be classified as 'empowered'.

- Community engagement and development: As the social involvement of the female respondents plays important role in the path of achieving empowerment, this paper as well tries to explore whether the women are being able to increase their social capital (having community among the people of KSF, sharing experience with each other, having strong communication, helping in terms of lending money or getting other helps from them, taking decisions by consulting with others, the role of the community in improving societal status etc.) or not will be found out and if majority of the answers are coded as one (1), they would be classified as 'socially empowered'.

3.1.4 Physical resources

The research of Mahajan and Powar (2012) showed in their findings that the overall lifestyle and means important for leading a healthy life was being achieved by the respondents through the engagement with dairy cooperatives. Therefore, as this study also seeks to measure the magnitude of empowerment and necessary assets for life, if majority of the female respondents response in the codes as one (1) and other coded measurement in terms of the improvement in the basic fundamental physical needs and resources (having electricity, safe drinking water, proper house, capacity to buy new land or cattle and such improvement in food habits and lifestyle), they will be identified as ‘empowered’.

These four dimensions will be working simultaneously as the composite empowerment determinant that will classify the female participants as ‘empowered’ or ‘disempowered’.

4. METHODOLOGY: UNDERSTANDING THE POTENTIALS OF PRIVATE DAIRY COOPERATIVE

The study combines primary and secondary data to explore the contact points and interactions of different dimensions of women’s empowerment in their sustainable livelihood approach applied by KSF in its poverty alleviation program. The fieldwork continued from September 2016 to July 2018 and ended with a survey conducted in March 2017.

4.1 In-depth Interview and Focus Group Discussion

Data were collected through in-depth interviews with 3 of the members of KSF on their cow rearing system and how they function to eradicate the rural poverty and thus improving women’s situation. Key questions were asked on what is the process through KSF runs and how they help the women of local communities and what the challenges are that they face while performing as well as the beneficiaries face while pursuing help from KSF. Two weekly meetings were attended by KSF members with the beneficiaries with the intention of seeing how they conduct the weekly meetings and what they do; also the meetings were attended to get the opportunity to talk with the beneficiaries to collect more information. Consequently, we led to a Focus Group Discussion with the beneficiaries when they were done with their official meeting. They shared their stories during the group discussion on – what were the factors behind joining the cooperatives, how did they get involved with the program, how they are getting benefits from the cows, what are the changes and challenges they are facing after their involvement with the program. We also talked to a few beneficiaries in person to know in-depth about their experience for a better understanding. Data from these interviews and group discussions were also used for making a survey questionnaire. Chief information from group discussions played a great role in understanding the interactions between the programs of KSF and achievement of women’s empowerment.

4.2 Survey

The survey was designed to capture how different dimensions of empowerment can be achieved by the local rural women through their engagement with the cooperatives by quantitatively estimating the contact points of the population with the indicators, so that these factors can be

better utilized and replicated in other areas where similar approach is being applied (or are thought to be applied). To understand this, detailed assessments on four empowerment indicators (i.e. economic progress, participation in decision making, human capital and community engagement, physical resources) were carried out to see how women empowerment and poverty reduction are getting influenced and impacted by these dimensions. KSF runs its program through eight branches, which are located in eight different villages that again are situated in six different upazilas of Panchagarh District. Our study was conducted in four villages: Rahanpur (Tentulia Upazila), Dorjipara (Tentulia Upazila), Moynaguri (Panchagarh Sadar Upazila), Atwari (Atwari Upazila). These four branches/villages were chosen for the study because they were backed by the LIFT (Learning and Innovation Fund to Test New Ideas) - a Program of Palli Karma-Sahayak Foundation (PKSF) (Chowdhury & Ali). PKSF is an apex development organization which was established by the Government of Bangladesh (GoB) in May 1990 and it works for sustainable poverty reduction in the rural areas of Bangladesh through employment generation (PKSF, 2020). Four villages were visited with a research team consisting of 10 trained members as well as a total five groups were formed with one male and one female interviewer in each group.

4.3 Sampling

According to the official information, until March 2017, KSF provided cows to 5603 members. For the survey, we decided to interview 360 KSF beneficiaries (90 from each of the four branches) which we calculated online through “Select Statistical Services” website. To get the desired sample size the website used the following formula –
$$n = N * X / (X + N - 1),$$

where,

$$X = Z_{\alpha/2} - *p*(1-p) / MOE^2,$$

$Z_{\alpha/2}$ is the critical value of the Normal distribution at $\alpha/2$ (e.g. for a confidence level of 95%, α is 0.05 and the critical value is 1.96)

MOE is the margin of error i.e. 5% here

p is the sample proportion i.e. 50% here

N is the population size which is 5603

Further, according to the website, they have applied a Finite Population Correction to the sample size formula (“Population Proportion – Sample Size,” n.d.).

The survey also applied a snowball sampling method to find out the KSF beneficiaries. Through gaining access to the village community, especially to women, the method was carried out by using ‘acquaintance’ and ‘trust’ with the closely-knit village community. Primarily, by taking help from KSF staffs, the houses of four beneficiaries were located and then we sought for help from them to further find out one to four more beneficiaries depending on their consent and familiarity (Naderifar et al. 2017). Because of the survey design being explorative and descriptive, the method was applied (Sarantakos, 1993). We tried to avoid any kind of biasness and circumstances where KSF staffs only can introduce successful cases to us by using this method.

5. RESULTS AND DISCUSSION

It was discussed earlier that although rural women played a very important task in agriculture and contributed in all operations related to crop production, still today women are faced with various traditional restraints (Afzal et al., 2009). The findings that were collected from the fieldwork will be analyzed and discussed circumstantially in this section dimensionally of whether KSF is capable of empowering rural women through its dairy activities.

5.1 Women's Financial and Economic Growth

Economic empowerment of women is of paramount importance as from standard of living to status in the society are judged on the basis of money (Niketha et al. 2017). Economic empowerment of women is very important for raising their status in the society. So economic financial resources and economic assets are imperative for dignified sustainable well-being of human beings including women. Before measuring the improvement in women's economic empowerment, the economic change and economic security of the household after joining KSF needs to be measured first.

From our field study, we have found that the economic situation has improved and economic security of the beneficiary households has increased after joining in the KSF program. Table 2 below shows the overall yearly income difference between before and after joining KSF. Surely the upturn in the yearly household income is visible in the findings. Most of the members (68.6%) started earning 1 or 2 lakh where before joining KSF, yearly income of most of the members were less than 2 lakh. Other values of yearly income after KSF are also high in the table and the least percentage (2.3%) shows that some members even earned more than 6 lakh after their engagement with KSF. The amount of monthly income can also be seen developing after joining KSF.

Table 2: Household yearly income before/after KSF

Household yearly income before joining KSF		Household yearly income after joining KSF	
Value	Percent	Value	Percent
More than 1 lakh	75.7	1-2 lakh	68.6
More than 2 lakh	19.7	2-4 lakh	23.1
Less than 1 lakh	4.0	4-6 lakh	5.7
Less than 2 lakh	.6	More than 6 lakh	2.3

Source: Authors, 2018

One of the beneficiaries said,

“Previously I used to manage my livelihood through begging. Earning daily was much harder for me, let alone maintaining my family in a satisfying way. Then I got to know about KSF and their policies. After getting a loan from KSF, I started a minimal grocery store. After some days I took a milking cow from KSF too. Now I have two cows. My husband and I both jointly continued the business and cow rearing. I sell the cow milk in the market, the cow also meets my children’s milk demand and the cow-dung from it meets my demand for fuel. So now we are economically secured. Though it is a little hard to rear cows since I have no land to graze them. But we are thinking of buying land very soon.”

Our findings asserts that many women beneficiaries are now capable of contributing to the family income and this is giving economic security to the women as well as the households. According to one of the respondent,

We had very limited income and I could hardly ask for money to my husband. Now, I am rearing cows and this is helping me to earn money. I can contribute to my family and I do not need to ask for money to my husband. Even, I can help my children in case they need something.

We have also noticed that the women are very enthusiastic about increasing the number of cows. This proves that cow rearing has some positive economic returns. According to one of the respondent,

I wish to increase the number of cows. Now, I have one cow but if I would have one more, I could have earned more money, thus could have helped my children by providing better support for their schooling.

We have also checked if the beneficiaries households can currently save money or not. Among all the members, 76.3% household members confirmed that they save money from the household earning and other 23.7% reported as negative. In these savings, 1.1% male have the tendency of savings, whereas 75.1% female tend to save but in case of both male and female it is only 0.3%. 2.3% of the respondents said of placing their savings in banks and other 73.4% and 0.3% of them reported of keeping their savings in NGOs and self; the number of members having total savings in between 10000-30000 taka is 54.9%, other 20.0% and 0.6% have savings between 30000-40000 and 40000-50000 taka.

The household asset base is an important component of economic dimension and serves as a key indicator in profiling empowerment of women. Thus measuring the capacity of the households to purchase assets is important for exploring the households economic situation. Earning income and having the capacity to purchase items independently together enables women to benefit economically by monetizing their contributions and the process thus empowers them to become the change agent (Putnam, 2000).

The figure below shows the assets that are purchased and owned by the members of the households before and after joining the dairy cooperative program.

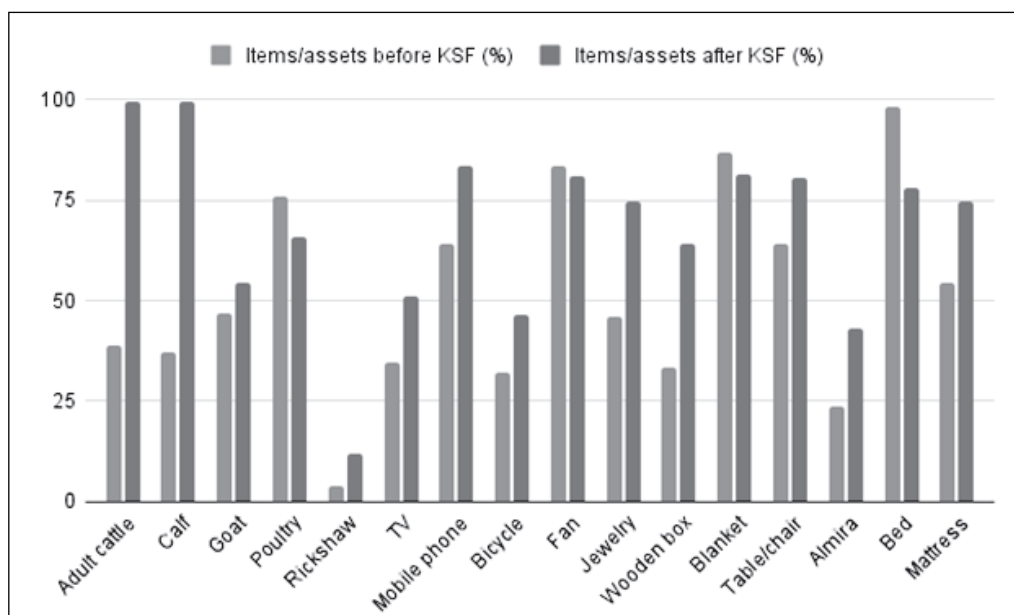


Figure 2: Change in assets purchased and owned by the households before and after joining KSF
 Source: Authors, 2018

Figure 2 shows the comparison between the percentages of items bought before joining KSF and after KSF. The difference is visible in buying cattle or other items more which can be additional earning means after joining and also in the rise of purchasing items that are average important for household (TV, mobile phone, jewelry box, bicycle, etc.) that shows income and savings from KSF might have helped the households to purchase more than before.

Thus, the economic condition (monthly income and yearly income) of the KSF member's household can be seen prospering after their work with KSF.

As the total household income has been presented earlier, the evaluation of women's access to the assets and the savings and women's rights on the savings need to be measured because achieving empowerment is expected to provide access to income and savings which in turn is expected to provide the much needed economic self-reliance of which cash-in-hand for personal and family expenses is a basic indicator (Meera & Gowda, 2013). In identifying of who have the rights and control on these savings, it was found out that among all the respondents, male have 26.9.1%, female have 12.4% and jointly have 60.7% rights and control on the savings.

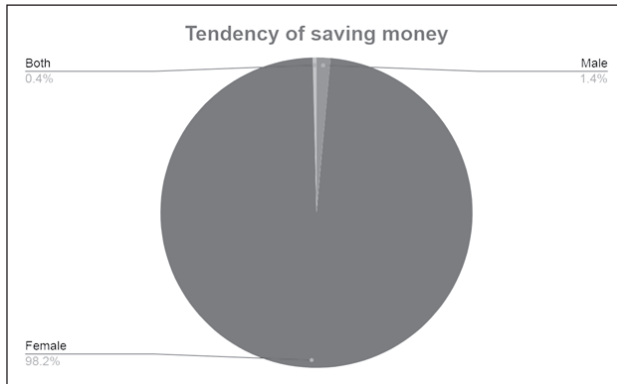


Figure 3: Gender based tendency of saving money
 Source: Authors, 2018

Underdevelopment and gendered inequalities are clearly traceable to unequal access and unequal control of resources (ibid). But, figure 3 represents that female headed households tend to save more than that of male headed or joint headed households. Despite many common constraints in the rural areas, the higher proportion of female-headed households having savings after their engagement with KSF is very much impressive. Regarding socio-economic extent of empowerment most of the respondents are empowered to a large extent in having savings (Anuradha, 2004).

Along with measuring which headed household is having savings, it is important to measure who has the right on those savings in the household. There are many examples in Bangladesh of women living in a ‘vicious circle of poverty’, the causal factor behind it is many times women earn, female headed households/women save the money, but the male of the house snatches the money away for his personal purposes. Moreover, there are many other socio-cultural obstacles for which women often cannot hold their control on and access in the savings. One of the common constraints behind women’s disempowerment is lack of having access to credit and savings that hampers the improvement of women’s economic situation (Simojoki, 2003).

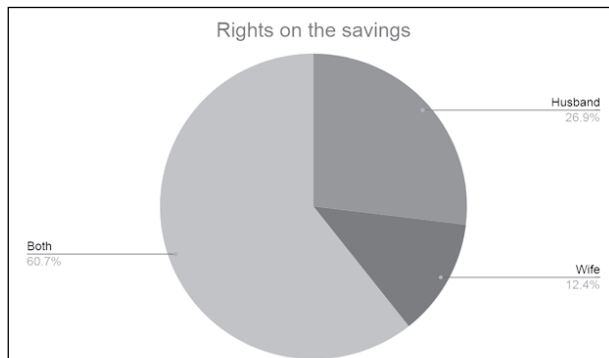


Figure 4: Gender based rights on the savings
 Source: Authors, 2018

In figure 4, a rise is visible in the column where husband and wife both (60.7%) have the equal access and rights on the savings compared with the other two. Though the percentage of husbands having access to the savings is higher than that of the wife, the increase in both having rights is quite remarkable.

Women bear multiple burdens of productive and reproductive work in their household that curtail their effective participation in development activities and in a patriarchal country like Bangladesh where visibly most rural women faces such kinds of biases and inequalities even within household, the improvement in husband and wife both equally accessing and controlling the savings after joining KSF indicates that women are realizing their full rights and this surely is encouraging for achieving the full empowerment of women (Meera & Gowda, 2013).

Most of the respondents said that they always had some money in hand and their lives were more secure than before. Asset ownership works as one of the key variables in creating socioeconomic groups (WFP, 2000) and KSF has made a positive impact on this indicator by improving their well-being.

5.2 Women’s Participation in Decision Making

Due to the male-dominated society of Bangladesh, the majority of women are limited to living in between the “four walls” of their home; metaphorically like a bird in a cage (Eck, 2014). Primarily their tasks are located inside the house and related work to household and family management such as cooking, cleaning, bearing and rearing of children etc. (Sultana & Islam, 2009; *ibid*) and men doing the outside works and performing jobs that brings them the money. Therefore, in talking of gender parity in the matter of taking decisions in the household and community, we see men only taking the major decisions in the household and community most of the time, especially in the rural areas. Sultana and Islam (2009) wrote in their paper on exploring NGOs of Bangladesh being successful in increasing awareness among vulnerable women that the participants mentioned money being the source of all power and position.

Table 3: Empowerment status based on decision making role

Activities in decision making	1=husband alone, 2=wife alone, 3=husband and wife jointly, 4=other (specify).			
	Male Head (%)	Female Head (%)	Husband and wife jointly (%)	Other
Use of household money earned	27.4	2.3	69.7	.3
Use of household cash savings	34.0	3.1	62.6	.3
Taking of a loan	34.3	2.9	62.9	
Spending money on education for children	30.3	2.6	66.9	.3
Spending money for health care of family members	43.6	3.1	62.0	
Use of contraception	14.6	2.6	17.7	
When to have children	37.7	.9	61.4	
Marriage of children (age and partner)	31.7	1.1	67.1	
Whom members should vote for	14.0	77.1	8.9	

Source: Authors, 2018

Table 3 shows that the percentages are high in husband and wife jointly taking decisions in the household and in community. Percentages in only husband taking decisions is then higher than wife taking decisions alone, though the rate in women's voting rights (77.1%) is higher than the other two.

Previously most of the rural women had no voice in important household affairs like- savings, deciding the number of having children, contraception rights, education of the children, purchasing something for household or moving outside without husband's permission (Koenig, t al., 2003, Schuler et al., 2010). The findings indicate that the percentages are high in the codes of only men taking decisions in the household and in the codes of equal participation of both husband and wife in taking decisions. Though, most of the percentages are poor in the answer codes of wife only having the rights to take decisions in the household, but the higher rate of the availability of both husband and wife taking decisions jointly is quite impressive that shows that women are gaining the rights and access to speak out and make decisions as along with their husbands in the major affairs in the household. The higher percentage (77.1%) in deciding on whom women should vote for proves that women are breaking up the manipulations and thus achieving their own voting rights. The availability in the findings of both husband and wife jointly taking decisions in the household and community- usage of money earned, savings, taking loan, education for children, contraception, having children, whom to vote and others- such access in, participation and control on taking major decisions is quite a great change, that too in rural areas of Bangladesh. One beneficiary said,

“My husband did not have enough money to run the family. But now we both have the ability to earn money and we run our family smoothly. As a result, my husband, children, in-laws and other family members now tend to listen to my decision and my husband gives importance to my opinion in many matters like household management, budgeting, cultivation of land, children's education and so on. So, now I receive more respect than I had previously through my engagement with money earning activities.”

A study of Dohmwirth and Hanisch (2017) on measuring the contribution of dairy cooperatives on women's economic empowerment of South India, the authors expressed that commercialization of dairy production rather seems to increase male involvement in traditionally female activity. The results from their research indicated that it always may not increase women's participation in decision making or greater empowerment in the household or community, instead it points to the fact that the gains of women provided by dairy cooperatives ranked their empowerment only in some domains. The findings of this study contradicts with the study of Dohmwirth and Hanisch and KSF members stated that their decision-making capabilities had improved after joining KSF as they had begun to deal with the outside world as well and their husbands gave their opinions greater importance than before. They said that although the husbands were the sole decision makers, the women too began participating in the household decision-making process along with their husbands. Children and other family members now spoke to them with respect because they had attained the power to earn and buy things for the family. They said of achieving a voice in the family through the monetary value of dairy production.

The percentage of male headed households is high in decision making capability in the findings comparatively that of female headed; but the highest percentage in both husband-wife jointly

taking decisions in the household shows that the stereotype is breaking, especially in the rural areas where there is a lot of gender stereotypical beliefs, practices and norms. Thus after engaging with dairy cooperatives and earning economic capabilities, male-female are also learning to maintain a gender equitable spousal relationship through decision-making equality and through bringing money as well as improving their perceptions, knowledge about many things, women are also enjoying a greater role in the familial affairs.

5.3 Improvement in Human Capital and Community Engagement

To understand the full potential of KSF in decreasing the impoverishment of rural women, this paper examined a number of different dimensions of empowerment, the improvement in member's knowledge/human capital, their confidence and freedom upon themselves, control over mobility and their community engagement through involvement with KSF.

26.3% respondents reported knowing about rearing a cow before joining KSF and the other 73.7% didn't know. 99.7% were aware of what needs to be done when a cow is ill or how to preserve the milk and other .3% weren't aware of that. Among the total participants, 98.6% were familiar with where to sell cow-dung; 87.4% knew the procedure of preparing fertilizer from cow-dung; 18.0% knew how to make fuel using cow-dung while the other 82.0% didn't know how to make fuel. 99.4% responded positively to the question of if the KSF provides members all necessary information about cow rearing. The findings in determining the development in women's knowledge after joining KSF shows that result is very much positive and most women who didn't know to rear a cow before joining KSF are now doing great in livestock management and dairying activities (preparing fertilizer, what to do when cow is ill, preserving milk, selling milk and fertilizer). Most of the respondents said that KSF provides them all the necessary information about cow rearing. Pandey (2005) and Kumari (2008) revealed that women as dairy managers and women technicians were proving to be considerable assistance to the cooperatives. Though the results of this study didn't stretch much on women's technological empowerment on dairying (machine milking, artificial insemination or fat estimation test). Respondents said training on various aspects provided by KSF increased the member's knowledge, skill, attitude, exposure, experiences and thus, helped in capacity building. These trainings were found to be highly positively correlated with the empowerment of women.

5.3.1 Confidence and freedom in decision making

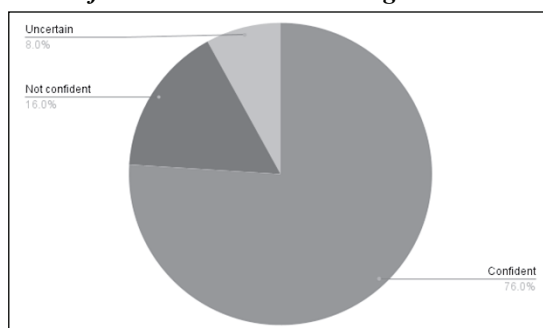


Figure 5: Confidence level of beneficiaries (female) in talking to outsider (male)
Source : Authors, 2018

Figure 5 shows the percentages of beneficiaries feeling confident in talking to men who are not members of their family. 45.4% beneficiaries said that they feel confident in taking small financial decisions alone (e.g. buying a sari) while another 21.1% said of being uncertain and the other 33.4% said of being not confident in this matter. After joining the KSF project, 23.1% respondents were able to buy new land and 76.9% were unable to get any land ownership; 65.7% of them achieved the decision making power over their dairy production and about 34.0% did not as well as 55.7% were able to take the decision to buy a new cow while 44.3% members responded negative.

During and after natural disasters, KSF tends to provide financial and other helps to its members to overcome the challenges caused by disasters and thus attempts to make them efficient and confident enough to cope and solve the shocks. 4.6% among the total participants responded that their households faced disaster during the last 3 years and 95.4% among them didn't face any disaster. 7.4% of them lost their cows in these disasters and 92.6% answers were recorded as negative. During this crucial period, helps have been provided by KSF to its victimized members by providing money (7.1%) and by providing necessary skills (2.3%); furthermore 72.9% victimized members said that KSF provided loan to them to minimize the disaster risk and 3.1% responses has been recorded as negative in this regard.

5.3.2 Own control over mobility

58.6% among the total respondents said of feeling confident of moving alone outside their village or urban area while other 17.4% and 24.0% reported being uncertain and not confident. Also, 99.7% members responded that they themselves attend the meetings of KSF when it is held outside their area.

5.3.3 Social capital/community engagement and development

All of the members (100%) reported of having a community among the people of KSF; 99.1% beneficiaries shared their experience with each other of the community and 99.4% have strong communication in the community; 70.3% of them helps each other in terms of money lending and 98.9% consults with the group members while taking any decision (cow or cow treatment related); 99.4% responded of their community and communication is improving their status in the society and 95.7% said that they receive direct or indirect help from the group member.

Therefore, in exploring KSF's impacts on enhancing member's confidence, freedom, mobility and their engagement in the community, the findings shows that women are now much confident in talking to other men, taking small decisions in the household, decision making power over dairy production, though results in buying new land and buying a new cow didn't come out as that satisfactory. Also during and after natural disasters, KSF provides financial help (loan) to its members to minimize the loss and shock. Around sixty percent members responded that they can go outside without any barrier or serious issue from home and ninety percent said that they attend meetings even if it's held outside their village. Ninety percent members have social interaction and community engagement through their involvement in KSF. They have been exposed to new ideas, knowledge and experiences through their interactions with the world outside their homesteads. Respondents said that training provided by KSF and

engagement with KSF significantly have impacted on the overall rural community development. The respondents believe that the mentality of society has changed due to this program.

5.4 Progress in Physical Resources

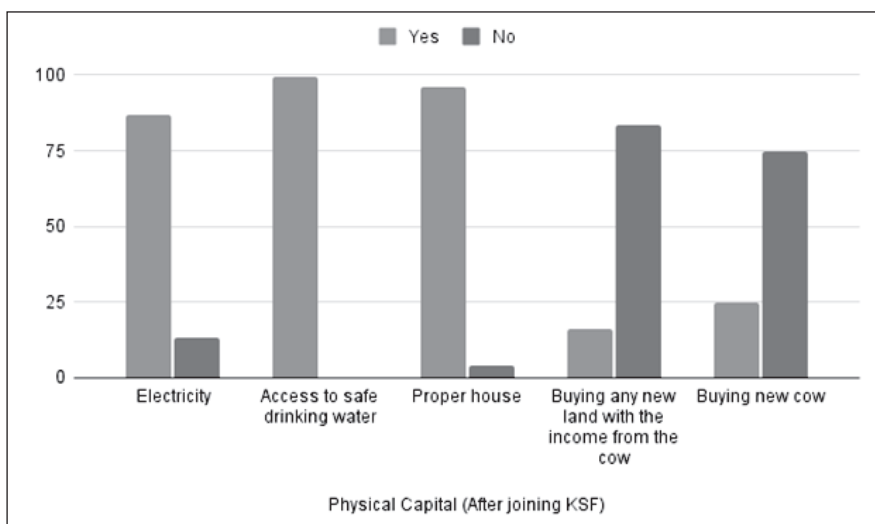


Figure 6: Progress in terms of physical capital development
Source: Authors, 2018

Again, in these stages of progress of physical capital, in estimating the differences brought in food habits after engaging with KSF, it was found out that 30.9% members have undergone little change, 55.7% experienced moderate change, 10.0% faced huge change and about 3.4% of them have encountered no change in their food habit with the income from the cow; the timing of the participants of buying new clothes were .6% of them in every week, 1.4% of them in every month, 5.1% in every three months and 92.6% in every six months. Among all the participants, 34.9% repaired their house recently and 64.9% did not; 32.9% purchased new cattle and 67.1% did not; 90.3% of them invested in education and 9.4% did not. After becoming a dairy farmer, the extent of the members buying new things are - gold (29.4%), television (19.4%), motorcycle (5.1%), land (12.0%), mortgage (12.9%) and 4.0% of them bought nothing. One respondent said,

“Previously I always had to wait for my husband to give me money for purchasing many domestic and personal items. Now I always have some money in my hand. So I can spend it on my own. I often can buy things independently now without any interruption. I can buy small things of my desire, save money, fulfill small wishes of my children and help them study better. We now face less economic hardship and I have less dependence on my husband and can invest in my personal choices than before.”

Physical resources here have been referred to as the changes or improvements in the lifestyle of the respondents. Findings showed that after joining KSF, almost all of the members are accessing electricity, safe drinking water, proper house except buying new cow or buying new land with the cow income, 65 percent members has been able to improve their food habit, buy new clothes in every six months, purchase new assets for themselves and household and most importantly, ninety percent members responded of investing in their children's education. Education for all is important for achieving empowerment and sustainable development as a whole (Meera & Gowda, 2013). Income from KSF thus enabled most of the women to make most household expenditures without being dependent on their husband (Sheela & Ramegowda, 2013).

Kumawat and Bansal (2018) found medium empowerment status of dairy cooperative members in their socio-economic, psychological, legal and political parameters which is according to the findings of this study as well. The above discussion shows that the impact of KSF is average and mixed in case of achieving women's empowerment; in some fields, the success is great and in some fields, there is yet to succeed.

One respondent expressed,

“Since the beneficiaries of KSF are only women, many men misuse this policy. They borrow cows or money in the name of their wives but only they enjoy the advantages of earning from it or managing them. The women have zero control or access to those things.”

But overall, KSF has made a positive impact particularly on the economic development and women's capacity to make decisions.

Though most of the studies have reported only in some level- increased level of decision making ability, income and enhanced level of itself, a limited number of studies were focused on women involved in dairy farming activities. Hence, this study was an experimental one to evaluate the empowerment of the beneficiaries in all kinds of indicators and thus assess their level of empowerment through dairy cooperatives. One respondent said,

“After joining KSF, women empowerment has been rising. When a woman looks after a cow, she can contribute to the family income. So she is being evaluated by husband.”

6. CONCLUSION

Bangladesh is primarily an agrarian society with about 62 per cent of her population living in rural areas (The World Bank, 2020). Agriculture is considered the predominant income source for rural inhabitants, contributing 15% to GDP and absorbing a huge amount of the labor force (Bangladesh Bureau of Statistics, 2019). But apart from the farming and agricultural activities, a large portion of the rural population is dependent on dairy production as well. As we know, many dairy cooperative providing organizations are coming forward with the intention to increase the marketability of more and more dairy production alongside the agricultural production, a significant improvement has been made among the cooperative members (Ghosh & Maharjan, 2001). Since the rural women are becoming more conscious of their life patterns,

children's education, health, and financial well-being, they are playing effective role in both income-generation and household management as well as they are struggling hard to improve their life style and trying to overcome poverty (Islam et al., 2019). Most of the rural households keep cattle in order to produce milk for family consumption and to cultivate their land. The population of rural areas is mostly poor and landless, and the raising of cows is done in a very traditional way without any special care. As people, especially women in rural areas are trying to diversify their income sources to ensure their livelihood, in this process dairy is being looked upon to them as a viable alternative. Since, women are already acquainted with the activities related to dairy farming, as well as they have the potential to improve their situation through their engagement with the dairy production, different social organizations, companies and many farms like cooperatives are playing an important role in the development of the dairy sector and are providing dairy cooperatives to them (Ghosh & Maharajan, 2001).

This study uncovers the efficiency of KSF to empower rural women through its dairy activities. In our research, we found that the respondents had highest participation in economic activities followed by access to savings, purchasing and marketing activities as well as decision making capacity while achievements in other areas of empowerment are also quite decent. According to the findings, the majority of the beneficiaries have been able to improve all the dimensions of achieving empowerment through joining KSF. In some areas, KSF played the dominant role and in some areas it played moderate. But in most cases, KSF played a key role in enhancing the economic, physical and social assets of women, developing their mobility and leadership qualities as well (Bhuyan & Ponnusamy, 2019). So, more dairy cooperative providing organizations like KSF should be established because dairy cooperatives can play a major role in achieving women empowerment since a major proportion of Bangladeshi rural women are directly engaged with dairy activities in their daily life and thus dairy related earning performances could be easier and familiar to them.

Dairy cooperatives can not only play a core role in empowering rural women but also form a platform towards achieving sustainable development and eradicate the overall economic adversities. Through the case study of KSF, it eventually can be said that dairy cooperatives have greater potential and can play a bigger role in empowering rural women and thus can effectively address the challenges posed by society on women.

Keeping the limitations of KSF in mind, some possible recommendations are-

- More emphasis has to be given on the technological adaptation that can boost up women's economic benefits, self-confidence and social recognition.
- To achieve women's empowerment and explore the deeply entrenched gender inequalities, organizing gender sensitization campaigns and programs for both rural women and men through their effective participatory mobilization can be adopted by KSF.
- Continued financial support and special incentives for women.
- Strengthening accountability, transparency, more planned projects and dynamic principles of staffs and officials of KSF.

Since enough research on calculating the effectiveness of dairy cooperatives has not been done in Bangladesh, conducting further research on insights on dairy cooperative's dynamics and dimensions through research and action are invaluable (Meera & Gowda, 2013).

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