

Impact of Micro-Finance Intervention on Livelihood Status of Women Households

Ramkrishna Chapagain*

Pradeep Sapkota**

Mukta Raj Gautam***

Received on 11 September 2018; Revised on 2 November 2018; Accepted on 12 December 2018

ABSTRACT

This study attempts to examine the impact of micro finance intervention on the livelihood status of the women households. With the purpose of measuring the impact of micro-finance, 60 non-intervened and the rest 60 intervened respondents having minimum five years attachment with Chhimek Laghubitta Bittiya Sanstha Limited established in the rural area of Pokhara Metropolitan City and nearby VDCs has been selected. Primary data were collected by a semi-structured questionnaire, and both qualitative and quantitative data were used to assess the impact of micro-finance intervention. The study is based on the interventional research design and used randomized control trial approach. Respondents were selected through stratified random sampling. The collected data were analyzed by using parametric (t-test) and non-parametric (Chi-square test) test. The findings of the research show that micro-finance intervention has positive impact on income level, consumption expenses, capital expenditure and savings. The research also shows that micro-finance intervention has positive association with occupational status and micro enterprise creation. One sample t-test on respondent's rating indicates that micro finance has reached to the remote areas, enhances financial inclusion, facilitates to poverty reduction and ultimately increases the livelihood status of women of rural areas of Pokhara Metropolitan City and nearby VDCs.

Keywords: Intervention, livelihood status, micro-finance, non- intervention

1. INTRODUCTION

Micro-finance creates access to productive capital for the poor together with human capital, addresses through education and training, and social capital. It can be achieved through local organization building and enables people to move out of poverty. By providing material capital to a poor person, their sense of dignity is strengthened, and this can help to empower the person to participate in the economy and society. Micro-finance encompasses the management of a small amount of money through a range of products and a system of intermediary functions that circulates money in an economy (Wenner, 1995). In its broadest sense, a livelihood comprises the capabilities, assets in terms of resources, claims, and access and activities required for living. A livelihood is sustainable when it can cope with and recover from

* Mr. Chapagain is lecturer at School of Business, Pokhara University.

** Mr. Sapkota is lecturer at School of Business, Pokhara University.

*** Mr. Gautam is freelance researcher.

Corresponding author: Ramkrishna Chapagain. E-mail: ramkrishnachapagain@gmail.com

stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation (Chambers & Conway, 1991).

In the context of Nepal, the first attempt of cooperative activities in Chitwan district in 1956 might be distinguished as a primary set of micro-finance. It was in use by registering first cooperative “Bakhan Singh Credit” in Rapti Doon of Chitwan, mainly focusing on shelter. The cooperative bank for investing cooperatives was established in 1963AD.

Around 23.80 percent of the population in Nepal are living below poverty line having the daily income less than the US \$ 1.25 per day (NRs. 125 per day, considering US \$ 1= NRs100). The solution for the scarcity of food, clothing and shelter is the major challenge for Nepali people, especially for those under-privileged community. Likewise, uplifting quality of life of the whole Nepali population is the next prominent issue (Ministry of Health, 2016). One of the proper solutions of poverty reduction and option for increasing the quality of life of whole Nepali people is possible through the agricultural development focusing on the improvement of land productivity with proper utilization of capital and human resources. For this Micro-finance and micro-credit are suitable tools to generate employment and uplift the economic condition of the nation. Chhimek Laghubitta Bittiya Sanstha Ltd. (CLBSL) is a leading micro-finance institution providing access to finance to more than 300,000 poor and marginalized women members, which was established in December 2001 and received license in January 2002 with the objectives of improving access to poor and marginalized women, promoting culture, encouraging savings, income generation, supporting microenterprises development and providing support to its members (Chhimek Lagubitta Bittiya Sanstha Ltd., 2018)

The livelihood of women in the rural areas of Nepal is found difficult because of either male dominance or non-inclusion of women in family or community decisions making have created a situation in which women of rural Nepal are living their lives in misery. This situation then calls for women to stand up together for themselves and to make a participatory effort to destroy the foundations of the patriarchal society. For this, a collaborative effort from the name of Self Help Groups (SHGs) has proved successful in several areas like community management, gender equality and eradicating social evils (Agrawal, 2009).

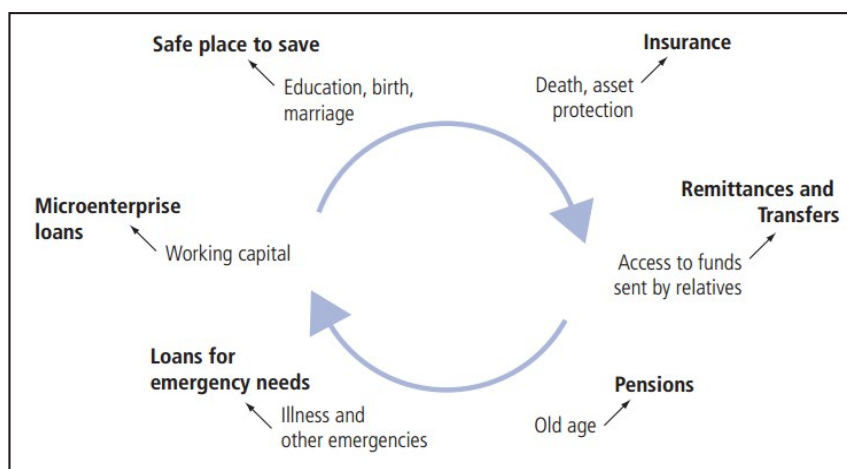


Figure 1. Financial needs fulfilled through micro-finance services. Adapted from the CGAP, access for all: Building inclusive financial systems, p. 23.

The aim of Micro Financial Institutions (MFIs) development generally includes: reducing poverty, empowering women or other disadvantaged population groups, creating employment opportunities, and thereby encouraging for micro-businesses or enterprises. The clients need different kinds of services to solve a wide range of financial problems at different points in time. In this regard, Figure 1 depicts the typical financial needs that can be fulfilled through micro-finance services for the people who have no capacity to take loans from formal financial institutions (Helms, 2006).

The general objective of this study is to examine how micro-finance intervention changes the livelihood status of women. The specific objectives are: (i) to analyze the demographic profile of both micro-finance intervened and non-intervened groups; and (ii) to show the impact of micro-finance intervention on income, consumption expenditure and savings through women employment.

2 LITERATURE REVIEW

Addai (2017) stated MFIs cannot empower women directly, it can help them through training and awareness-raising to challenge the existing norms, cultures and values which place them at a disadvantage in relation to men, and to help them for greater control over resources and their better lives. By offering poor households access to formal or semi-formal financial services, micro-finance has the potential to empower its clients in a variety of ways: providing women greater security and power, linking women with networks beyond their neighborhoods through group formation. Micro-finance services foster group formation and self-management by women have additional potential to empower women through exposure to new ideas, mutual support, fostering an identity beyond the family and the opportunity to cultivate leadership roles and responsibilities. The impact of micro-finance on women empowerment acknowledges five main dimensions resulting from their participation in micro-finance programs: economic, social, political, legal and psychological empowerment of which economic and social empowerment are the most predominant.

Dhungana, Singh, Acharya, Gautam & Paudyal (2016) examined that there was a positive effect of micro-finance services on health awareness and practices in various ethnic groups of Nepal. There was a higher level of health awareness among the upper caste group. However, this study focused on lower income group and backward community to analyze the improvement on the health and economic status of Nepalese people.

Khatiwada (2016) also stated that micro-finance is certainly not medicine for poverty; it has proved itself as a useful tool to fight against poverty. It has provided an important contribution in the country like Nepal, Bangladesh and Malaysia but it is not fruitful in the most undeveloped countries of Africa. In Nepal, the development of micro-finance has improved the living standard of her rural people. Impact analysis of micro-finance suggests that the majority of borrowers who already have some assets (or business skills and education) are more likely to succeed through micro finance intervention. Financial system approach and poverty lending approach both are beneficial for the poor.

Sharma (2015) in his paper made an overview of micro-finance and microenterprises development and analyzed the related various dimensions of the micro-enterprises. He focused on registration status, causes of registration and non-registration, employment status and participation of women in the microenterprises, problems related to microenterprises, training need assessment and their effectiveness, micro insurance and their status.

Upadhyay (2015) stressed on the objective of identifying the efficacy of Micro Finance in women

empowerment and to explore the ramifications of awareness and socioeconomic alterations owing to Micro Finance program. Both quantitative and qualitative data from primary and secondary sources were used in the study. Micro-finance program had supported to women's income generating and livelihood activities and helped in poverty reduction owing to which rural women's life style and way of living was altered. Emancipation of women was procuring economic, social and political rights and equality meant for fostering a balance in gender relations as against the one-sided women empowerment approach.

Rakhal (2015) found in his research work that micro-finance provides access to financial services that can help to decrease poverty by promoting opportunities in financial access to the poor including women. Moreover, micro-finance program had improved the life of many poor through income generating activities. This study also pointed out that the credit access to women not only improves the economic condition of the family but also increases social relations. Flexible policy should be formulated to assist poor women in cases of business failure. Many poor women would become active entrepreneurs, if their entrepreneurship is developed through positive strengthening and support for the financial access.

George and Kumar (2014) concluded that women must be empowered by enhancing their awareness, knowledge, skills and technology use efficiency and thereby facilitating overall development of the society. The Self Help Groups (SHGs) provided to be a helpful instrument for the empowerment of women. This paper observes that SHGs of the rural poor particularly managed by women successfully demonstrated how to mobilize and manage thrift activities, appraise credit needs, enforce financial disciplines, maintain credit linkage with banks and effectively undertake income generating activities.

Hossin (2012) has illustrated the impact of BRAC micro-finance operations on the livelihood of the borrowers. This study shows that the overall impact of BRAC micro-finance operations on the livelihood of the borrowers is positive. In the case of changes of employment (occupation) pattern, the sample respondents have been able moderately to employ themselves into higher income generating activities. The study found that many sample borrowers have diverted themselves to self-employed activities which generate higher income. Borrower's income and their contribution to the family expenditures have increased significantly after joining BRAC. Borrowers having long periods of attachment with BRAC micro-finance program show a high volume of income compared to borrowers having a short period of attachment.

Terberger (2012) demonstrated the micro-finance's potential for positive impacts on clients' livelihoods, even if measured impacts, particularly of microcredit, stayed well behind of what was hoped for. Impacts of micro-finance on financial sector development, i.e. via training of staff, the promotion of transparency, good governance, or principles for responsible finance, have never been measured; nevertheless, they are existent. Without a doubt, there is a striking success that the micro-finance approach can righteously claim as its own: The creation of viable target-group-oriented financial institutions, which after an initial phase of institution building can survive without continually being fuelled with additional subsidies. As long as access to finance goes along with predominantly positive impacts for its clients, these impacts will flow for as long as the MFI survives.

Wrenn (2007) advocated for much wider impact assessments of micro-finance projects, other than financial impact if the true impact of micro-finance is to be understood. They argued that instead of using traditional financial impact assessments, assessments should be broadened to include social, cultural and political impacts on clients, their families and indeed the wider community. The role of micro-finance in poverty alleviation is subsequently being underrated by not assessing the wider impacts of micro-finance interventions, even though positive impacts are clearly taking place.

Dhakal (2007) identified emerging issues such as policy on macro-economy and financial system stability, regulation and supervision of micro-finance sector, institutional capacity building, expanding the frontier of micro-finance services in remote areas, introduction of ICT, encroachment or unfair competition and financial viability and uncovered the clear need to address these issues properly and in time.

3. DATA AND METHODS

This research is based on interventional research design. Respondents are divided into two groups: one is a member of micro-finance for 5 years and another is not member of micro finance ; locating on same geographical area to find out the impact of Chhimek Laghubitta Bittiya Sanstha Ltd. (CLBSL) on livelihood status of women in the rural areas of Pokhara Metropolitan City. The study is based on randomized control trial (RCT) method. The survey included 60 micro-finance clients and 60 non micro-finance clients living in the same geographical area having similar background and characteristics. They have been taken for the study to compare the impact of micro finance intervention to intervened and non intervened women household. The respondents for data collection have been taken from Eaklekuna, Sundaridanda, Majikuna, Lamaswara, Vanjyang, Kalika, Arupata, Patneri and Bagmara. Stratified random technique has been used for the selection of respondents. The study is mainly based on primary data. Researchers visited in different groups and centers of CLBSL and reliable set of questionnaires was distributed in rural area of Pokhara Metropolitan City and its periphery. To set out the cluster of interventional group in rural areas secondary sources have been used. For the calculation and analysis of data, various statistical tools have been used and the significant help of MS – EXCEL and SPSS has been taken. Both parametric test (Independent sample t- test and One sample t- test), non-parametric test (Chi-square test) have been applied to evaluate the impact of MF intervention on livelihood improvement.

4. RESULTS AND DISCUSSION

The main component of micro-finance program for rural women is to provide loan for them with a view to making income generation, enhance living standard and increase livelihood status of interventional people. It consists of household analysis in term of family income, consumption expenses, capital expenditure, occupational status and social informational awareness.

4.1 Descriptive Analysis

Table 1
Marital Status of Respondents

Status	Frequency	Percentage	Cumulative percentage
Married	115	95.80	95.80
Unmarried	2	1.70	97.50
Widow	3	2.50	100.00
Total	120	100.00	

Source: Field survey, 2017

Table 1 shows that the majority (95.8 percent) of the members surveyed were married, unmarried were 1.7 percent and widows were 2.5 percent. Among 120 respondents of the rural area of Pokhara, 115 were found married, two were unmarried and three were widows. This shows that married women were highly participatory in nature in comparison to widows and unmarried.

Table 2

Demographic Features of Respondents

Features	N	Minimum	Maximum	Mean	Std. deviation
Age of respondents	120	17	70	40.4	13.6
Family size	120	1	13	4.7	2.0
No. of children	120	0	7	1.7	1.2
<i>Intervened respondents</i>					
Age of respondents	60	22	70	43.20	13.2
Family size	60	1	13	4.75	2.05
No. of children	60	0	4	1.65	1.02
<i>Non-intervened respondents</i>					
Age of respondents	60	17	68	37.68	13.452
Family size	60	1	10	4.62	1.949
No. of children	60	0	7	1.68	1.345

Source: Field survey, 2017

Table 2 shows that average age of respondents, family size and number of children were 40.4 years, 4.7 people and 1.7 children respectively. The youngest was 17 and the oldest was 70 years old.

Table 3

Educational Level of Respondents

Educational level	Frequency	Percentage	Cum. percentage
Illiterate	17	14.20	14.20
Non formal education	52	43.30	57.50
Under SLC	36	30.00	87.50
SLC	8	6.70	94.20
Intermediate and above	7	5.80	100.00
Total	120	100.00	100.00

Source: Field survey, 2017

Table 3 shows that majorities of respondent were literate but not gain a formal education. For instance, 43.3 percent of respondents were literate but not gain formal education, 30 percent were under SLC, and 14.2 percent were illiterate. Only 6.7 percent were in SLC level and 5.8percent of the respondents gained an intermediate level and above. In brief, these data reveal that the majority of rural people were literate but not pass their SLC level.

Table 4 reveals that 70 respondents were involved in modern and 50 involved in the traditional

Table 4
Interventional Effect on Occupational Status

Status	Intervention	Non-intervention	Total
Modern	48.00	22.00	70.00
Traditional	12.00	38.00	50.00
Total	60.00	60.00	120.00

Source: Field survey, 2017

occupation. Among respondents involved in the modern occupation, 48 were intervened and 22 were non-intervened. In traditional occupation, 12 intervened and 38 non-intervened respondents were involved. This figure justifies that intervened population was significantly involved in the modern occupation. Here the modern occupation involves professional agriculture and livestock farming, poultry farming, small businesses, services/ jobs and foreign employment. Similarly, traditional occupation includes traditional crops production, unmanaged livestock and wages-based labor work.

Table 5
Educational Effect on Occupational Status

Educational level	Modern	Traditional	Total
Illiterate	8	9	17
Non formal education	25	27	52
Under SLC	25	11	36
SLC	7	1	8
Intermediate and above	5	2	7
Total	70	50	120

Source: Field survey, 2017

Table 5 depicts the significant impact of the educational status of respondents on their occupations. Those respondents who acquired academic education were largely involved in the modern occupation, but for those below formal education had no significant impact on selecting occupation. Among 52 literates, 25 were involved in modern and 27 were traditional. Similarly, among 36 respondents under SLC, 25 were involved in modern and 11 were involved in the traditional occupation. Among the 15 respondents above SLC level, 12 were involved in the modern occupation, while 3 were in traditional occupation.

4.2 Descriptive Analysis of Livelihood Parameters

In this analysis, income and expenses of households were measured by using mean as a prime parameter and standard deviation shows the deviation among each group. Income of women households, their consumption expenses and savings were measured in monthly basis and capital expenses was measured in an annual basis.

Table 6
Descriptive Analysis of Livelihood Parameters

Interventional status	Statistical tools	Monthly income	Monthly consumption expenses	Annual capital expenditure	Monthly savings
Intervention	Mean	28091.67	15650.00	58500.00	9455.00
	Frequency	60	60	60	60
	S.D.	20594.45	9951.28	6906.35	1993.02
Non-intervention	Mean	15758.33	11670.00	21416.67	2633.43
	Frequency	60	60	60	60
	S.D.	10081.66	5858.80	2282.76	1418.57
Total	Mean	21925.00	13660.00	39958.33	6044.22
	Frequency	120	120	120	120
	S. D.	17292.30	8373.16	5449.38	1421.50

Source: Field survey, 2017

Table 6 shows that average monthly income, consumption expenses, and savings of the respondents were Rs 21925, Rs 13660, Rs 6044.22 respectively. Similarly, the annual capital expenditure of the respondent's family was Rs 39958.33. Despite these, table 6 also shows the separate condition of consumption, income, capital expenses and savings in control group and experimental group. Average monthly income of micro-finance intervened people was significantly higher than non-intervened people. In consumption expenses, there was less difference between intervened and non-intervened group, but a significant difference was found in capital expenditure, income and savings.

Table 7
Non- Financial Services

Non- financial services	Total respondents	Facilitated respondents
Vocational training	60	17
Empowerment training	60	40
Small business training	60	45

Source: Field survey, 2017

Table 7 illustrates the respondents' believe towards micro financial services. Those who involved in micro-finance were only gained such non-financial services. In this research, 60 respondents were involved on whom CLBSL had made an intervention. Among them 17 respondents said that CLBSL provided vocational training to the society. Similarly, 40 respondents favored women empowerment training and 45 favored small business or entrepreneurship training. Thus, CLBSL provided awareness programs, skill development programs as tailoring, candle making training, doll making training etc.

Table 8
Sources of Loan Taken

Sources of loan	Intervention	Non- intervention	Total
MFIs	54	0	54
Bank	1	7	8
Relatives	0	11	11
Friends	0	11	11
Total	55	29	84

Source: Field survey, 2017

Table 8 shows that among 60 respondents intervened by micro-finance, 54 had taken loan from MFIs and one had taken loan from the bank. In non- intervened people, 7 respondents used the bank, 11 respondents used relatives and other 11 respondents used friends to borrow loan. However, there was almost nil about non-banking loan in CLBSL intervened group, but in non-intervened group there were remarkable people who depended on friends and relatives at the higher interest rate for loan.

Table 9
MF Effect on Creating Micro Business

Micro business	Intervention (percent)	Non- intervention (percent)
Created	53.33	15.00
Non- created	46.67	85.00
Total	100.00	100.00

Source: Field survey, 2017

From Table 9, it is clear that more than half of the micro-finance intervened people were facilitated for creating micro-business. But, only 15 percent respondents of the non- intervened group was creating micro-business. This result justifies that the financial support of CLBSL has helped to create small businesses for women households.

4.3 Inferential Analysis and Discussion

Table 10
Chi- Square Test on Occupational Status

Test	Value	df	Asymptotically Sig- nificant (2-sided)	Exactly significant (2-sided)	Exactly significant (1-sided)
Pearson Chi-Square	23.18	1.00	0.00		
Fisher's Exact Test				0.00	0.00
Total valid cases	120.00				

Source: Field survey, 2017

For the calculation of chi-square value, the researcher has categorized the occupation of respondents in two groups as traditional occupation and modern occupation. In this statistical analysis, the researcher has tried to find out the goodness of fit in between the interventional status and occupational status (Table 10). It implies that respondents involved in micro-finance also involve in modern occupation. Value of one-tailed test is significantly lower than 0.05% level, so the null hypothesis has been rejected, and the alternative hypothesis is accepted. Thus, micro-finance intervention promotes the occupational status of the people at 5 percent level of significance. It means the majority of micro-finance intervened people were involved in the modern occupation.

Table 11

Independent Sample T Test with Different Variables

Variable	T value	P value
Monthly income	4.166	0.000
Consumption expenditure	2.670	0.009
Capital expenditure	3.949	0.000

Source: Field survey, 2017

Table 11 shows micro-finance intervention increases income, consumption expenditure and capital expenditure of the people at a 5 percent level of significance. It means average monthly income, consumption expenditure and capital expenditure of intervened people was higher than non-intervened people.

Consumption expenses include various expenses as food, cloth, health, education, entertainment, utilities etc. Increase in consumption expenses means they spent more on their basic needs and on development parameters. This shows micro-finance intervention has increased the livelihood status of the people.

Capital expenditure includes those expenses which are occurring on acquiring long term goods. In this section, the researcher collected data on capital expenses for land, house accessories, appliances, and furniture. Expenses on capital items reflected that they fulfilled their basic needs for living and then spent towards the betterment of life. Micro-finance intervened people had higher capital expenses means they spent more on commodities and assets to make their life easy. This shows that micro-finance intervention increased the livelihood status of the people.

Table 12

One Sample t -Test on Social Informational Awareness

Interventional effect on	t statistic	df	Significance
Social informational awareness	4.70	59.00	0.00

Source: Field survey, 2017

In this analysis, the expected mean of satisfaction is set as 3, because the value of 3 was set as moderate. For this topic, the researcher has used a Likert scale to find out the interventional effect on social informational awareness. In this single mean test, if the respondents' satisfaction level is higher than 3 it refers that the hypothesis test is significant. Table 12 shows that the level of significance is lower than 0.05, so the null hypothesis is rejected, and the alternative hypothesis is accepted. This means

that the micro-finance intervention has increased social informational awareness of the people at 5 percent level of significance. This result suggests that micro-finance intervention has increased social informational awareness on various social issues.

Table 13

Single Mean t -Test for Attitude Measurement

Interventional effect of MF	t statistic	df	Significance
Changed livelihood status of people	10.12	59.00	0.00
Reached to the marginalized and poor people	8.72	59.00	0.00
Create satisfaction towards its services	6.86	59.00	0.00
Facilities for poverty reduction	10.19	59.00	0.00
Helping for financial inclusion	9.78	59.00	0.00

Source: Field survey, 2017

In this section, the researcher has discussed the attitudes and satisfactory level of respondents who involved in CLBSL. To analyze this, qualitative data in Likert scale have been used and to generate output single sample t- test is applied. These results help to analyze the micro-finance intervention, its impact and respondents' response towards CLBSL. Attitude was based on their experience of services. Similarly, as in the above analysis, the mean satisfaction level is assumed as 3, so the sample test is based on the population mean of 3.

Table 13 indicates that all the measuring parameters have 0 significance value, which is less than 0.05 levels. Hence, it can be said that all the parameters were found significant. This also suggests that CLBSL members were satisfied towards its services and agreed CLBSL's facilitation for poverty reduction. CLBSL is helping for financial inclusion and its services are reaching to the poor and marginalized people. Along with these, the above table reveals that micro-finance intervention has facilitated for improving livelihood status of rural women households.

5. CONCLUSION

Micro-finance is a very positive tool for poverty alleviation, human capital formation and increasing livelihood status of rural people through women participation. The study shows that both groups of respondents have no remarkable difference in demographic characters. The study shows that married women were more participative in CLBSL. The majority of respondents were literate but not gained higher education. The financial and non-financial services granted by micro-finance assist for involvement in modern occupation. As a result, the higher number of intervened people was involved in modern occupation in comparison to non- intervened people.

Most of the rural people in Pokhara Metropolitan City and nearby VDCs were involved in agriculture, animal husbandry and foreign employment; among them a large number of non-intervened people were involved in traditional agriculture. It is found that micro-finance services have reached to the rural area and intervened people are somehow satisfied towards financial and non-financial services. Most of the non-intervened people of rural areas are not aware of health education, women rights, and equality, social and economic participation. Based on the nature of micro business and socio-economic condition of rural women, it can be suggested that micro-finance should provide moratorium period for business

loan and provide subsidies on the interest rate. Looking at the overall prospective of CLBSL in the current scenario, it can be concluded that micro-finance intervention has somewhat created a positive impact on livelihood status of women in rural area.

REFERENCES

- Addai, B. (2017). Women empowerment through micro-finance: Empirical evidence from Ghana. *Journal of Finance and Accounting*, 5(1), 1-11.
- Agrawal, B. (2009). The impact of women's participation in community forest governance. *Ecological Economics*, 68(11), 2785-2799 Retrieved from <https://doi.org/10.1016/j.ecolecon.2009.04.025>
- Chambers, R., & Conway, G. (1991). *Sustainable rural livelihood: Practical concept for 21st century*. Institute of Development Study, Discussion Paper 296. Retrieve from http://publications.iwmi.org/pdf/H_32821.pdf
- Chhimek Laghubitta Bittiya Shanstha (2018). Introduction of Chhimek Laghubitta Bittiya Shanstha. Retrieved <http://chhimekbank.org/en/about-us/introduction/>
- Dhakal, N. H. (2007). Emerging issues in Nepalese micro-finance sector. *Nepalese Journal of Economics*, 1(2), 35-46. Retrieved from <https://www.nepjol.info/index.php/sedp/article/view/1046>
- Dhungana, B. R., Singh, J. K., Acharya, D., Gautam, S., & Paudyal, P. (2016). Perceived usefulness of a micro-finance intervention on health awareness and practices in Nepal. *Frontiers in Public Health*, 3, 1-7. doi: 10.3389/fpubh.2015.00289
- George, L., & Kumar, K. (2014). Micro finance for socio-economic empowerment of women – A study of Stree Shakti Programme in the state of Karnataka. *International Journal of Management, IT and Engeneering*, 4 (2), 263-276.
- Helms, B. (2006). *Access for all: Building inclusive financial system*. Washington DC: The World Bank.
- Hossain, M. K. (2012). Measuring the impact of BARAC micro-finance operations: A case study of a village. *International Business Research*, 5(4), 112-123.
- Khatiwada, N. (2016). Impact of micro-finance on poverty alleviation. Retrieved from <https://www.linkedin.com/impact-micro-finance-poverty-alleviation-nepal-nitesh-Khatiwada>
- Ministry of Health. (2016). *Nepal demographic and health survey*. Kathmandu: Ministry of Health Nepal.
- Rakhal, D. (2015). Entrepreneurship, micro-finance and social relation: An emperical analysis of women's perceptions. *The Journal of Nepalese Business Studies*, 9(1), 116-125.
- Sharma, P. R. (2015). An emperical overview of microenterprises and micro-finance development in Nepal. *The Journal of Nepalese Business Studies*, 9(1), 3-12.
- Terberger, E. (2012). The micro-finance approach: Does it deliver on its promise? *Die Untemehmung*, 66 (4), 358-370.
- Upadhyay, P. (2015). Hierarchical to gender egalitarianism: Women empowerment and emancipation through micro-finance in rural Nepal. *The Journal of Nepalese Business Studies*, 9(1), 48-62.
- Wenner, M. D. (1995). Group credit: A means to improve information transfer and loan repayment performance. *The Journal of Development Studies*, 32(2), 263-281.
- Wrenn, E. (2007). *Perception of the impact of micro-finance on livelihood security*. Dublin: Kimmage Development Studies Centre.