The Impact of Micro Finance on the Household Income and Consumption level in Danyore, Gilgit-Baltistan Pakistan

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Abstract
Danyore with the population of more than 25000(LSO) individuals depend upon the conventional agriculture and its associated activities and small-scale business. Facilities of micro finance avail by both men and women in order to create income generation opportunities to cater domestic needs of their families. During the last ten years, micro finance has been providing innovative and effective channels of economic activities by investing in different fields such as livestock, agriculture, dry fruits, handicrafts and home industries. Improving health, education and living standard are the results of the micro finance in premises of Danyore. The micro finance has been playing pivotal role in eradicating poverty and bring people above the poverty line by increasing consumption capacity and income level. Now the common people are more actively involved in to adapt new ideas of livelihood. The race for quality education, health better quality of life force them to raise the level of income and expenditure, in this regard credit services is available at micro level now they can borrow to meet the cost of their child’s education.

Keywords: Micro Finance, Household Income, Poverty, Education

1. Introduction

The history of microfinance activities in Pakistan started with launching of orange pilot project in Kutchi Abadies of Karachi in early 1980s and Aga Khan Rural Support Program (AKRSP). The AKRSP’s initiative of community based village and women organizations in Gilgit-Baltistan during the mid-eighties. The MFI’s in Pakistan are classify into different groups based on their uniqueness that separates them from other finance institutions and make them similar in terms of the way they function.

The first group consists of finance institutions with microfinance as a separate product line. The share of microfinance related activities of these institutions is up to 10%, Orix Leasing, Bank of Khyber and now Karakorum Cooperative Bank limited these are profit-making organizations and consider microfinance as a separate product line. The second group refers to the specialized microfinance institutions that include two microfinance banks. The Khushhali Bank, First Microfinance Bank Limited and two NGOs KASHF Foundation and Asasah. All these
institutions completely focus on the provision of financial services and have commercial focus as well.

The third category of MFIs is related to activities of Rural Support Programs which deals with integrated Rural Development Programmes with microfinance as one of its activities. These organizations are National Support Programmes (NRSP), Punjab Rural Support Program (PRSP), Sarhad Rural Support Program (SRSP).

Motivation

Being a student of economics often observes the changing socio economic situations and new developments take place in my surroundings. Microfinance inspired me because that brings revolutions in the levies of millions of poor people of the world. There many questions in my mind, is this development is sustainable? Does the microfinance affects the income, consumption level and standards of living of the under privileged masses in real terms? All these pushed me to investigate something more than observation and the requirement for the degree.

Objectives

The objective of the study is, to investigate the Impact of microfinance on the household income, consumption level and spending on health and education of individual households in the research area. Secondary concern is to understand the contribution of impact of microfinance as emerging tool for the alleviating poverty and vulnerabilities of under privileged masses.

LITERATURE REVIEW

Barnes (1996) state that, an almost infinite array of variables could identify to assess impacts on different units. To be of use these must be able to define with precision and must be measurable. Conventionally, economic indicators have dominated microfinance IAs with assessors particularly keen to measure changes in income despite the enormous problems this presents. Other popular variables have been levels and patterns of expenditure, consumption and assets. A strong case made that assets are a particularly useful indicator of impact because their level does not fluctuate as greatly as other economic indicators and not simply based on an annual estimate.

Murdoch (1995) investigated that, First households can smooth incomes; this is most often achieved by making conservative production or employment choices and diversifying economic activities. In this way, households take step to protect themselves from adverse income shocks before they occur. Second, households can smooth consumption by borrowing and saving, adjusting labor supply and employing formal and informal insurance arrangement. These mechanisms take force aftershocks occur and help insulate consumption patterns from income variability.

Maldonado, Jorge, et al (2005) study investigated microfinance’s impact on Bolivian rural households’ education choices. It identifies several effects of microfinance that positively influence a household’s demand for child education. Microfinance’s ability to expand a household’s income and serve as an income smoother, the empowering effect it has on women and their ability to make decisions regarding schooling, and the demand microfinance creates
for children’s education—especially in programs that include an educational aspect for the mother—all lead to higher rates of primary school enrollment and completion.

*Khandker (2003)* in addition, many studies (primarily microfinance institution impact studies and academic researcher qualitative or case studies) have shown that microfinance programs were able to reduce poverty through increasing individual and household income levels, as well as improving healthcare, nutrition, education, and helping to empower women. For example, standard of living increases, which help to eradicate extreme poverty and hunger, have occurred at both the individual and household levels as a result of microfinance programs. *Bruce Wydick (1999)* study of a Guatemalan MFI illustrates one such case. He found that as long as hired labor could be easily substitute for child labor in a family’s micro enterprise, then access to credit increased children’s chances of being in school. In cases where the enterprise required skills that took years to teach, such as the weaving of traditional Guatemalan fabrics, families were reluctant to train hired labor and preferred to pass their knowledge to their own children. Children learned the trade at home rather than attending school. Parents chose to do this because it ensured that “the rewards of the training would ultimately be captured within the household,” thus avoiding the danger that a trained hired laborer would start a competing business.

*Shahidur Khandker (1998)* study of three Bangladeshi microfinance institutions found that for the two MFIs, which did not make children’s, school enrollment a primary concern (unlike BRAC,) boy children of program participants are more likely to be enrolled in school as a result of the loan than girls. Regardless of whether the money lent to male or female participants in Grameen and RD-12, the probability that boys school enrolment would be increase. In contrast, only in one case (a Grameen loan to a female client) did the probability of girls’ enrollment increase with a microfinance loan. Khandker attributes this to the fact that “boys are less likely to be drawn into self-employment activity or into household no market.

*Khan (1999)* had conducted a research on sample of 341 Bangladesh women. To find out about the availability, accessibility and desirability of credit for poor rural women how they valued the credit services that were availing through the facility of the credit program. Quantitative and qualitative data collected from seven randomly selected sub centers of the microfinance institutions there. Thirty women were further with vulnerability as they save and now able to deal with crises. They can send their children to school and pay for their health. There are remarkable changes in the situation of women accruing due to microfinance intervention. Women have had their voices strengthened, they managed to set up their businesses and run them, they are no longer dependents on their husbands and their leadership as their business skills has enhanced.

*Navajos, Schreiner, et al (2000).* These hypotheses on the stagnation of the impact of microfinance, particularly in the long term deserve serious attention from researchers. The conclusion on the microfinance schism is that governments and donors should know whether the poor gain more from small loans than from other alternatives such us health care, education, agriculture, food aid etc. Most measures of the impact of microfinance organizations fail to control for what would have happened in their absence.

*Schreiner (2002)* studied the micro enterprise programs established with the help of microfinance program in the United States. Loans provided to the micro entrepreneurs to start business. These programs have positive impact on the lives of poor by creating job
opportunities. Providing a source of income, building assets of their own. These benefits are always higher than the costs. The microfinance program in United States have a positive role to serve the needs of low income and poor people and the developments of micro enterprises have large impact on the industrial sector. Survey shows a good record of repayment of loans ion time which shows that microfinance programs are also successful in developed countries.

Townsend et al (2002) had conducted a research in Thailand. The focus of this study was to analyze the impact of micro finance institutions on the households. Variables like assets growth, consumption, entrepreneurship and job mobility also studied by using maximum likelihood function and two stage least squares. Estimations based on the household and institutional level data from a survey before the financial crises hit that area. Nineteen variables selected for the research purpose. The household level independent variables used in the regressions, age of head, age of head squared , years of education of head , male head (dummy) , number of adult males in household , number of adult females, number of children (under 18 years), total wealth squared , customer of formal financial institution (dummy), and member of agricultural organization(dummy ). Results showed a positive impact of membership on the asset growth positive impact of membership on the entrepreneurship. The results clearly indicate a significant and positive impact of this program on households.

Gobbi et al (2005) has done a comparative analysis of the two survey conducted in Nepal and Pakistan. They interviewed 100 women clients from at least three different microfinance institutions for each country. The women represent a sample that have borrowed in initial micro finance loan and apply for loans to start their own business. The institutions which were selected, Priority was given to those that took into the account achievements of gender equality, empowerment, saving and self-sustainability. Their study showed that micro finance industry is fast growing in both countries and the outcomes are significant in both countries. The result showed a positive impact on profits and sales of their products in both the countries.

Coleman (1999) estimated the impact of microfinance program on household characteristics like consumption, health, education and employment by surveying the clients of Khushali bank in Pakistan. For empirical analysis, ordinary least square (OLS) and legit estimation used. The results showed that program does not have any impact on household consumption, expenditure on food items or education but a positive impact of program on health. The clients of the program who run micro enterprises have more monthly inputs in the business, although the results of these inputs do not seem to show up yet in increase sales and profits in aggregate sources of transport. It could be conclude from the empirical studies that microfinance has emerged as a noble substitute for informal credit and as effective and powerful instrument for poverty reduction. Microfinance loans have a strong and positive impact on the productivity and growth of micro enterprises especially in developed countries. People initially borrow loans from these formal institutions to set up their businesses and to expand their businesses at the later stages.

(Rossi and Freeman 1989; cited in Barnes and Sebstad, 1999) Establishing impact essentially is making a case that the program led to the observed or stated changes. This means that the changes are more likely to occur with program participation than without program participation.
RESEARCH METHODOLOGY

Household income and consumption are important components of the modern economies and can be the fuel for engine of development. The level of household income and consumption level are determinants the living standard and quality of life. The impact of microfinance on the household income and consumption could be positive and negative. The provision of financial services to underprivileged mass has been increasingly gaining movement and popularity since early 1980. Microfinance institutions in well positioned to assist those whose level of income is significantly lower to raise income increase their savings and improve their standards of living. This part of study focuses on the primary source of capital to fund their household immediate necessities that are spending on education and health. Investment in household enterprise e.g. Seeds and fertilizer for marginal return from land, Feeds for livestock and poultry, Fabric and threat cons for handicraft production to generate or raise income. The part provides the information about the data and describes the methodology, regressions and inferential analysis and will explains the result policy recommendations.

Sample Size

\[ n = \left( \frac{Z^2 V}{\varepsilon} \right)^2 \]

- \( n \) = Sample size
- \( Z \) = normal vitae of 95% confidence level, which is 1.96
- \( V \) = Variability among units of population, which is 20%
- \( \varepsilon \) = Acceptable precision and error level, which is 5%

Putting all these values in equation (1).

\[ = \left( 1.96 \times \frac{0.020}{0.05} \right)^2 \]

\[ = 61.63 \]

\[ = 62 \text{ (Appox)} \]

Through this procedure, a sample size of 61.43 households from Danyore village determined. Therefore, the total sample size for the whole population is:

\[ n = 62 \text{ (household)} \]

Data Collection

Total sample size for the study is sixty-two respondents and Danyore Union council is focus area. It is home to people of different ethnicities, from Hunza / Nagar Astor, Ghaizer, and from surrounding areas. The people from Hunza / Nagar Brushaki speakers but the difference exists in accent and people from Astor and Ghaizer Shaina speakers among them the accent difference is obvious. The sample size of the study 22.58% represents the female population and remaining represents male population. 35.48% respondents are the clients of The first Microfinance bank, 30.65% are clients of societies, 24.19 are clients are representing the Karakorum co operative bank and rest 9.68% are representing other commercial banks. Usually clients borrowed from these institutions. Data collected through using the survey questionnaire instrument and only selected samples taken.

Research Questions

Questionnaire divided into two parts. First part of questionnaire consist of background information about name, family size, source of income, concerned microfinance institution and
numbers of loan taken. The second part of the questionnaire is comprised of household income and consumption level questions about the effects on the household income level, education, health and agriculture. Second part also includes questions regarding repayments of loan, interest rate and expenditure on education and health before and after microfinance loan. The questionnaire designed with open and close-ended questions. The questionnaires were filling through interview method from sample of 62 respondents. During the data collection, most of the respondents were very cooperative but some of the respondents are reluctant to disclose their personal information. However on the assurance of the restrict confidentiality by the researcher they feel relaxed and cooperated.

**Estimation of Model**
The specific forms of models have estimated in order to investigate the impact of microfinance primarily on household income level, consumption level and spending on health and education. Model for household income is as follow.

\[
Y = \beta^* + \beta_1X_1 + \mu
\]

\[
\text{Hinl / amfl} = \text{Intercept} + \text{Amf/ lt} + \mu
\]

Where
- \(Y\) (Hinl / amfl) = Household income level after micro loan
- \(\beta^*\) = intercept
- \(X_1\) (Amf/ lt) = Amount of microfinance loan taken
- \(\mu\) = Error Term

Model for the household consumption level

\[
Y = \beta^* + \beta_1X_1 + \mu
\]

\[
\text{Hconl / amf} = \text{Intercept} + \text{Amf / lt} + \mu
\]

Where
- \(Y\) (Hconl / amf) = Household consumption level after microfinance loan
- \(\beta^*\) = Intercept
- \(X_1\) (Amf / lt) = Amount of microfinance loan taken.
- \(\mu\) = Error Term

Model for the Health spending

\[
Y = \beta^* + \beta_1X_1 + \mu
\]

\[
\text{Hspd / amfl} = \text{Intercept} + \text{Amf / lt}
\]

Where
- \(Y\) (Hspd / amfl) = Health spending after microfinance loan
- \(\beta^*\) = intercept
- \(X_1\) (Amf / lt) = Amount of microfinance loan taken.
- \(\mu\) = Error Term

Model for the Education spending

\[
Y = \beta^* + \beta_1X_1 + \mu
\]

\[
\text{Eduspd / amfl} = \text{Intercept} + \text{Amf / lt} + \mu
\]

Where
- \(Y\) (Eduspd / amfl) = Education spending after microfinance loan
- \(\beta^*\) = Intercept
\(X1(\text{Amf} / \text{It}) = \text{Amount of microfinance loan taken.}
\)
\(\mu = \text{Error Term}
\)

**Estimation Technique**

*(Gujrati 2003)* Ordinary Least Square (OLS) used for the estimation of the model. This method has some very attractive features, which has made it one of the best methods of estimation of econometrics models. For given sample, OLS provides us such values of coefficients, which minimize the sum of squares of residuals. Residuals capture the effect of missing variables from the model. If sum of square of residuals is large, it means that some very important variables are missing from the model so model is miss-specified

*Santor and Gomez (2001).* Using OLS technique the findings shows that the self-employed individuals who receive the individual loans and running their businesses are earning better incomes than the individuals who have outside sources of income. This increase in their incomes has positive effects on the household expenditures as well. Findings also reveal that to earn better income in businesses, contacts, social relations, education and experience also matters a lot.

Ms Access used for database and Ms excel used for the calculations and transformation of the data. Econometric Views (E-Views) used as statistical package for the estimation.

**RESULTS AND DISCUSSIONS**

*Braverman and Guasch (1986).* The availability of credit facility have positive impact on rural income on other hand the informal lenders charged some times 100% interest rates, this adversely affect the incomes of poor households,

**Table 1: Impact of microfinance on Household income level**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>12165.31</td>
<td>660.0940</td>
<td>18.42967</td>
<td>0.0000</td>
</tr>
<tr>
<td>X</td>
<td>0.056350</td>
<td>0.006079</td>
<td>9.269641</td>
<td>0.0000</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.588833</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.581981</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-598.1287</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.684066</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(Y = \beta^* + \beta_1X1\)

\(H_{inl} / amfl = \text{Intercept} + \text{Amf} / \text{It} \)
The Y (Hinl / amfl) dependent variable represents the level of household income after microfinance loan acquired. β* is intercept shows the mean income of households before the microfinance loan taken. β1 (Amfl / lt) is placed to represents the impact of one unit of loan taken by client results in change in their household income levels. Mean of dependent variable shows mean income of household after the microfinance loan acquired by clients and standard deviation indicates the variation among the level of household incomes of clients. The value of R-squared 0.588833 shows the variations in dependent variable by the explanatory variable, it means that 58.88% variations in dependent variable are defined by the explanatory variable. The difference between the value of coefficient of β* is 12165.31, it represents the mean income of households before microfinance loan and the mean value of dependent variable is 16330.65, that represents the mean income of households after microfinance loan. It shows the incremental change in income of households after microfinance loan taken; it means that microfinance loan affects the household level of income hence it increases by Rs 4165.34.

The value of the coefficient of β1 is 0.056350; it shows a one unit of microfinance loan taken leads to increase in household income of clients by Rs 0.056350. It indicates that a microfinance loan affects the income level of clients but in minor terms. Standard deviation of dependent variable is 5888.79 it explain the variation among the household income levels of clients by Rs 5888.79. The P-value of intercept is zero it means that the estimator of intercept is significant and confidence interval is 100%. The P-value of explanatory variable is 0.000 that is less than 10 it indicate that the estimator is significant and confidence interval is 100%.

The P-value of F-statistics is 0.0000 it shows the significance and confidence interval for whole model thus the model is significant and confidence interval is 100%. The value of Durbin-Watson stat is 1.684066, which is closer to 2 that means there is no multicolinearity in the model.

Table 1.2: Impact of microfinance on Household consumption level

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>10481.05</td>
<td>617.9339</td>
<td>16.96144</td>
<td>0.0000</td>
</tr>
<tr>
<td>X</td>
<td>0.027858</td>
<td>0.005691</td>
<td>4.895440</td>
<td>0.0000</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.285419</td>
<td>Mean dep. var</td>
<td>12540.32</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.273510</td>
<td>S.D. dep. var</td>
<td>4181.633</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-594.0366</td>
<td>F-statistic</td>
<td>23.96533</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.89645</td>
<td>Prob(F-statistic)</td>
<td>0.000008</td>
<td></td>
</tr>
</tbody>
</table>
$Y = \beta^* + \beta_1$

$Hcons / amf = \text{Intercept} + \text{Amf} / \text{lt}$

The $Y$ ($Hcons / amf$) dependent variable represents the household consumption level after microfinance loan acquired. $\beta^*$ is intercept shows the average consumption level of households before the microfinance loan taken. $\beta_1$ ($\text{Amf} / \text{lt}$) is placed to represents the impact of one unit of loan taken by client results in change in their household consumption levels. Mean of dependent variable shows average consumption level of households after the microfinance loaning facility availed by clients and standard deviation indicates the variations among the levels of household consumption of clients.

The value of coefficient of $\beta_1$ is 0.027858, it shows that a unit of microfinance loan taken by client leads to increase in consumption levels of household by Rs 0.027858. It explains the change in their consumption levels due to microfinance loan. The $P$-value of coefficient of $\beta_1$ is 0.0000, which is less than 10% it means that estimator of the coefficient is significant. The value of $t$-statistics of coefficient is $\beta_1$ is 4.895440 that is greater than 2 it shows the significance of the estimator.

The coefficient of $\beta^*$ is 10481.05 it explains the average consumption level of households before the microfinance loan taken thus Rs 10481.05 is average consumption expenditure of households before microfinance loan. The mean value dependent variable is 12540.32 it shows that the Rs 12540.32 average household consumption expenditure after microfinance loan.

The difference between mean value of coefficient of $\beta^*$ and the mean value of dependent variable is Rs 2059.27 it shows that consumption expenditure of households increase by that amount thus microfinance affects the household level of consumption. Standard deviation of dependent variable is 4181.633 it shows the variation in consumption expenditures of the household by Rs 4181.633. The value of $R$-squared is 0.285419 that explains the 28.54% variations in consumption expenditure of households defined by the microfinance loan taken by the clients. The value of Durbin-Watson statistics is 1.89645 it is closer to two that means there is no multicolinearity in this model.

**Table 1.3: Impact of Microfinance loan on Health spending**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2333.352</td>
<td>169.2367</td>
<td>13.78750</td>
<td>0.0000</td>
</tr>
<tr>
<td>X</td>
<td>0.006007</td>
<td>0.001559</td>
<td>3.854553</td>
<td>0.0003</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.198478</td>
<td>Mean dependent var</td>
<td>2777.419</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.185119</td>
<td>S.D. dependent var</td>
<td>1081.350</td>
<td></td>
</tr>
</tbody>
</table>
The \( Y (Hspd / amf) \) is dependent variable that shows the spending made by a household on health after microfinance loan. The value of 2333.352 Coefficient of \( \beta^* \) shows average spending of household before the microfinance service. 2777.419 is the average spending made by household on health after microfinance loan. It shows the improvement in spending on health and microfinance affects health spending.

In other way the value of coefficient of \( \beta_1 \) is 0.006007 it shows a unit of microfinance loan taken leads to increase in health spending by Rs. 0.006007. The value of R-squared is 0.198478 it explains the 19.84% variations in health spending defined by the microfinance service. The value of t-statistics of intercept is 13.78750 it is greater than 2 thus the estimator is significant and the value associated to t-statistics of coefficient of dependent variable is 3.854553, it means that the estimator is significant. The p-value of coefficient of dependent variable is 0.0003 and it is less than 10% it means that estimator is significant and p-value of intercept is 0.0000 it is less than 10 that shows 100% confidence interval. The p-value of (f-statistics) is 0.000285 that is less than 10 so the whole model is significant and confidence interval is approximately 100%.

### Table 1.4: Impact of Microfinance loan on Education spending

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>4477.456</td>
<td>660.2160</td>
<td>6.781805</td>
<td>0.0000</td>
</tr>
<tr>
<td>X</td>
<td>0.026587</td>
<td>0.006080</td>
<td>4.372792</td>
<td>0.0000</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.241671</td>
<td>Mean dependent var</td>
<td>6442.742</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.229032</td>
<td>S.D. dependent var</td>
<td>4336.973</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-598.1401</td>
<td>F-statistic</td>
<td>19.12131</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.581043</td>
<td>Prob(F-statistic)</td>
<td>0.000050</td>
<td></td>
</tr>
</tbody>
</table>

\[ Y = \beta^* + \beta_1 \]
Eduspd / amfl = Intercept + Amf / lt

The Y (Eduspd / amfl) is dependent variables that shows the education spending after microfinance loan taken. The coefficient of intercept shows the average education spending of the households before the microfinance loan taken it means that Rs. 4477.456 is the average amount which spends by the households before microfinance services. The mean of dependent variable is Rs 6442.742 it shows the average spending of household on education after microfinance loan taken by clients it indicates that microfinance affects the education spending at moderate level. The Standard deviation of dependent variable explains the variations in spending on education cross the households by Rs 4336.97. Coefficient of β1 shows a unit of microfinance loan taken by clients leads to increase their household education spending by Rs 0.026587. The t-statistic of intercept is 6.781805 that is greater than 2, it means that estimator is significant and t-statistic of β1 4.372792 which is greater than 2 it shows that the estimator is significant.

The p-value of the coefficient of β1 is 0.0000 it is less than 10 so the estimator is significant and p-value of the intercept is 0.0000 it means that estimator is Significant. The value of R-squared is 0.241671; it shows that 24.16% variations in household spending on education defined by the microfinance loan taken. It means that 24.16% incremental change in spending on education is due to microfinance loan and it shows positive impact on education spending. The value of Durban-Watson statistics is 1.58 that is closer to two it means that there is no multicolinearity in the model.

**Descriptive Analysis**

**Table 2: Composition of the borrowers**

<table>
<thead>
<tr>
<th>Female participation</th>
<th>Male Participation</th>
<th>Avg. no of family size</th>
<th>Avg. no of earning individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>48</td>
<td>9.08</td>
<td>2.1</td>
</tr>
</tbody>
</table>

The table shows the composition of borrowers. Gender wise participation in microfinance describes the female participation is 22.58% and male participation is 86.42%. The average family consist of approximately 9 individual. The average earning individuals is 2 in a household it indicate that only 2 earning individuals cater the brad and batter of the 9 members family. It seems quite difficult to handle the situation for only two earning individuals to cater the demands of family with limited resources.

**Table 2.1: Composition of Source of household income**

<table>
<thead>
<tr>
<th>Services</th>
<th>Agriculture</th>
<th>Business</th>
<th>Business, Agriculture &amp; Services</th>
<th>Service &amp; Agriculture</th>
<th>Business &amp; Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.51%</td>
<td>22.58%</td>
<td>14.51%</td>
<td>24.19%</td>
<td>12.90%</td>
<td>11.29%</td>
</tr>
</tbody>
</table>
The table shows the composition of source of household incomes. Agriculture is single most contributing source of income. There is space to improve the income from agriculture by investing more and more and adopting new techniques and skills. The majority of under privileged masses belongs to agriculture sector. Services and business has same contribution to household income. 24.19% respondent has multiple sources for income generation; they use channels of business, services and agriculture. 12.90% respondents use service and agriculture as source for their household income generation. 11.29% says the use business and agriculture as source for income generation.

**Figure 3: Market Share of Institutions**

![Pie chart showing market share of institutions. The first Microfinance Bank has major share in the market with 35.48%. Societies has 30.65% market share at second position. The Karakorum bank 24.19% market share and standing at third position. The others has 9.68% includes Soneri and National bank at fourth position. It seems that majority of the poor people do not have access to formal financial services or microfinance institutions.]

**Table 2.2: Borrower’s response over the impact of microfinance**

<table>
<thead>
<tr>
<th>Description</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on education</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>Impact on health</td>
<td>32.25%</td>
<td>67.75%</td>
</tr>
<tr>
<td>Impact on agriculture</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Impact on income</td>
<td>83.87%</td>
<td>16.13%</td>
</tr>
</tbody>
</table>

The table shows the borrower’s response over the impact of microfinance on their household operations. Over the impact on education 71% borrowers said, they experienced the impact on their children’s education and 29% says no. Over the impact on health 32.25% said yes and 67.7% said no. On agriculture 50% borrowers, said yes and 50% vote against it. Impact
on income 83.87% said yes and 16.31% said no. It seems that majority of clients believe that microfinance affects their income, consumption level as well as their agriculture sector.

Table 2.3: Composition of Household operations before microfinance

<table>
<thead>
<tr>
<th>Average income</th>
<th>Average consumption</th>
<th>Average spending on education</th>
<th>Average spending on health</th>
</tr>
</thead>
<tbody>
<tr>
<td>13811.29</td>
<td>11024.19</td>
<td>4219.35</td>
<td>1746.77</td>
</tr>
</tbody>
</table>

The above table shows the situation pre microfinance of household operations. The average monthly income of household was Rs 13811.26. the average consumption level of household before microfinance was Rs 11024.16. The household spent on education was Rs 4219.35 and on health was Rs 1746.77 before microfinance.

Table 2.4: Composition of microfinance loan

<table>
<thead>
<tr>
<th>Average loan</th>
<th>Average interest Rate</th>
<th>Repayment Rate</th>
<th>Default Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>73919.35</td>
<td>18.16%</td>
<td>82.26%</td>
<td>17.74%</td>
</tr>
</tbody>
</table>

The above schedule shows the composition of microfinance loan. The average amount of loan taken by borrowers Rs.73919.35 and the average interest paid by the borrowers is 18.16%. The rate repayment is 82.26% while the default rate is 17.74. The rate of interest should be lower as compare to other commercial banks or government should provide subsidy to strengthening microfinance base. To improve repayment rate, the microfinance institutions should develop a proper mechanism for monitoring of client or provide appropriate guidelines regarding to effective utilization of loan.

Table 2.5: Reasons of default

<table>
<thead>
<tr>
<th>Due to bad health</th>
<th>Due to high interest rate</th>
<th>Due to loss in business</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.36%</td>
<td>45.45%</td>
<td>18.18%</td>
</tr>
</tbody>
</table>

The above schedule shows the reasons behind the default of loan. 36.36% said due bad health they did not returned the loan. 45.45% said that due to high interest rate, they default and 18.18% said due to loss in business they default. The high rates of interest, complicate repayment schedule and their inefficiency to manage or inability to utilize the amount of loan are major reasons of default.

Figure 3.1: Loan utilization
The diagram shows the utilization of loan. It indicates that eight borrowers did not invest in business; they utilize loan to meet their domestic needs. Twelve borrowers invest 50% loan in the business or other income generation source and remaining 50% utilize to meet their domestic needs of household. Seven borrowers invest 80% in business and remaining 20% spent on domestic needs. Thirty-five borrowers invest 100% amount of loan invested in the business. It means that clients of microfinance borrow for to generate income and as well as for to meet domestic needs of their family. It affects the income consumption level and ultimately health and education spending.

**Conclusion and Policy recommendation**

Access to microfinance around the world is most popular tool to facilitate the under privileged population to bridging gap between poor and rich. Microfinance has been play pivotal role smoothing household income and consumption level of low-income masses of the world. Eliminating Income disparities and creating income generating opportunities leads to increase household income, consumption level, assets holding and induced savings are grass root policy options.

These would pull poor households themselves out of poverty, they can access to necessities e-g quality food, improved housing, education, health care. Microfinance outreach program endeavors to improve the standards of living, sustain jobs, decrease unemployment, reduce poverty and empower the poor. Most poor people suffer from low level of funds to run household small-scale business; they do not have access to the formal banking services. Majority of poor population of Danyore do not have access to financial services and ignore by the microfinance institutions. There are many complaints regarding the staffs of microfinance institutions for biasness with clients, who are extremely vulnerable. The cost of borrowing is high and complicated procedures are major hurdle to access. Hardly only one branch of Karakorum bank (MFU) is located in Danyore.
Findings

The findings show that microfinance has positive impact on household income and consumption level. The microfinance positively affects the household income level and consumption level. The estimation of models shows that microfinance positively affects health and education respectively, but the education at lower level. The contribution of microfinance to household welfare shows an increase in income and consumption level and ultimately affects the spending on health and education.

Policy recommendations

- The microfinance institutions should extend its outreach program to deserving population with radical approach.
- Microfinance institutions arrange trainings for poor population in order to improve their skills and increase income from household enterprise.
- The cost of borrowing should be minimum and lesser documentation.
- Microfinance institution should charge low interest rate as compared to other commercial banks.
- Government should encourage microfinance institutions to operate in the rural and remote areas so that financial services are easily accessible to the poor.

Bibliography

Seibal (2005), “Does history matters? The old and the new world of microfinance in Europe and Asia” Asia research institute, Department of Economics and Department of Sociology, National University of Singapore.