Abstract

The purpose of this study is to evaluate the influence of women empowerment, microfinance involvement, and loan size on women satisfaction. To achieve the objectives through simple random sampling technique the cross-sectional was collected from 372 borrowers’ and 372 non-borrowers’ women’s through questionnaire and later multinomial logistic regression was applied. The findings revealed and support the theory of adoption, which demonstrates that income increases satisfaction. Microfinance is a kind of money, which involves borrowers in small business and enables them to have money through doing businesses that increase borrowers’ women satisfaction compare to non-borrower’s women. More empowered women is more satisfied with life. Present study also found that the effect of microfinance involvement on women’s satisfaction depends on their empowerment. In the light of findings this study recommends that future researchers can examine the same model in the different culture. This study contributes theoretically, practically and politically.

Keywords – Women empowerment, Microfinance, Satisfaction, Economic activities
1. Introduction
In the past twenty-five years, the issue of happiness has become once again the center of interest among economists and psychologists. Satisfaction, quality of life and well-being are the dimensions of happiness (Becchetti, Castriota, and Conzo, 2017). Introduction discusses the influence of two variables name income and empowerment influence empowerment. However, the studies on the relationship between income and happiness are mixed while most of the studies found empowerment positively influence happiness (Jachimowicz, et al (2019); Kelley and Evans (2017); Sadiq (2014)) found empowerment and finance has link with satisfaction. Easterlin, Switek, Zweig (2010) discusses about the happiness-income paradox they found in developed countries income cannot influence happiness. Li and Shi, (2019) found income can increase the level of happiness in under developing countries. Economist believe that higher income leads to higher happiness overall in the world (Antinyan, Horvath and Jia (2019); Hill, Cheung, Kube, and Burrow, 2019; Huang, Chu and Cheng (2019)). Therefore, it is important to examine whether income and empowerment influence Happiness.

There are several studies (Banerjee, Breza, Dufllo and Kinnan (2017); Devaraiah (2013); Dolan and Fujiiwara (2016); Hassan and Saleem (2017); Islam, Perumal and Hussin (2017); Lybbert and Wydick (2017); Rukumnuaykit (2016); Putu, et al (2016); Zahra and Wright, (2016)) that evaluate the impact of microfinance on women empowerment but there is lack of such studies that examine the influence of microfinance on happiness. Researcher failed to find a study that examines the influence of empowerment on satisfaction. As previous studies states impact of income on satisfaction is mix across the countries. Does income and empowerment influence Pakistani women? As Pakistan is one among the developing countries. Pakistani women are reported less empowered (Akhtar, Ayub (2019); Ferdous, Kabir, Khan and Chowdhury (2017); Khan, Zaheer and Shafique (2017); Memon and Idris (2019); Mitroi, Sahak, Sherzai and Sherzai (2016); Mntaz, (2005), Murshid and Critelli (2017); Sathar and Kazi (1997); Ul-Hameed, Mohammad and Shahar (2018); Zahra, Zakar, and Abbas (2016)). In the light of literature, it is important to examine whether less empower will make women less happy. However, this researcher did not find any study on the effect of overall women empowerment on women’s satisfaction. Therefore, by examining the direct influence of income and empowerment on satisfaction and indirect influence of empowerment through income on satisfaction on Pakistani women, present study contributes theoretically and practically.

2. Literature Review
According to the existing empirical research and theories on happiness there is happiness-income paradox (Abdel-Khalek, and Korayem (2018); Barrington-Leigh and Galbraith (2019); Fanning and O’Neill (2019); Han, Jung and Xiong (2019); Hastings (2019); Jacob, Rothmann, and Stander, (2019); Li, and Shi (2019); Ng, and Diener (2018); Okulicz-Kozaryn, and Golden (2018); Wang, Cheng and Smyth (2019). Clark, Senik, and Yamada (2017) and Easterlin, Switek, Zweig (2010)) discusses
that the striking thing about the happiness-income paradox is that over the long-term usually a period of 10 years or more happiness does not increase as a country’s income rises. Recent critiques of the paradox, claiming the time series relationship between happiness and income is positive, are the result of either a statistical artifact or a confusion of the short-term relationship with the long-term one. However, most of the studies found that more money brings more happiness. Aknin et al, (2013) examined the correlation between charitable giving and happiness in 136 countries. In 120 out of 136 countries, there was a positive relationship between income and happiness. Hence, we cannot say that high level of income necessarily shows a high level of happiness (Gere and Schimmack, 2017).

This happiness paradox can be explained by various theories. According to the adoption theory, high level of income can increase happiness on a temporary basis. The theory of social comparison argues human’s live in communities and have social network so, they compare their achievements with others, living in their surroundings known as peer group (Aknin, Wiwad, and Hannibal (2018); Amendola, Dell’Anno and Parisi (2018); Chae (2018); Kislev (2018)). Hence, the happiness paradox can be questioned whether it also happens in the under developing countries (Selten, 1998). In the case of developing country, Shabbir and Gregorio (1996) found in Pakistan, freedom seekers were mostly women, who had some kind of dissatisfaction in their paid work and who wanted to start their own business in order to choose the type of work, hours of work, work environment and the people they worked with but most of the women faced the financial barriers in starting their own business. The problem of dissatisfaction and starting personal business cannot be resolved without money, as money generates money or services generate money. Now, women are being supported globally. Various programs serve women by providing them with financing.

There is need to check empirically whether women involvement in microfinance leads them to happiness as there is conflict between the findings on women living standard as Shabbier and Gregorio (1996) found Pakistani women demand for loan to start business and want to enjoy high living standard. In addition, Ali and Haq (2006), Yasmeen, and Zaini (2015) recommend that future researchers should focus on women’s life satisfaction. So on the basis of previous studies on Pakistani women, this study chooses only one dimension (one satisfaction) among the various dimensions of happiness.

H1: There is impact of microcredit on women’s life satisfaction in Pakistan.
H2: There is impact of loan size on women’s life satisfaction in Pakistan.

Empowerment means, "To give power to the powerless" or “giving the authority to somebody". (Shetty and Vasanthi (2019); Mukhuti, Mukhuti and Chakraborty (2019); Nwokoro and Ogba (2019)). Economic decision making empowerment, household decision making empowerment, freedom of movement empowerment, ownership of property empowerment and political and social empowerment are the five dimensions
which are used commonly to measure the women empowerment (Malhotra, Schuler and Boender (2002); Yasmeen and Zaini (2015)). Sathar and Kazi (1997) found that Pakistani women are less empowered in regards to economic decision-making and freedom of movement. Asim (2009) Memon, M. F. A., and Idris, N. (2019) Shareef, (2014) indicated that women in Pakistan can make household decision but not major or economic decision. In Pakistan, majority of the women are not even allowed to avail the health facilities independently especially in tribal areas. (Bukhari, M. A. H. S., Gaho, M. G. M., and Soomro, 2019; Harisree, H. G. 2019; Pasha and Palanivel, 2003; Zia, A. S. 2019). A woman can survive without having ownership and participation in political party but it is difficult for her to survive without physical mobility. So this study determines the freedom of movement rather than property ownership and political empowerment. Ali and Haq (2006) and Yasmeen, (2015) recommend that further research should examine the impact of decision making empowerment and freedom of movement empowerment on Pakistani women’s satisfaction to life.

**H3: There is impact of decision-making empowerment and freedom of movement empowerment on Pakistani women’s satisfaction.**

3. **Instrument and measurement of Variables**

To measure the women satisfaction (WS) this study adopted questionnaire of Michael Pennock, (2009), it consists of 5 items. The measurement scale is “0” for not satisfied, “1” for some time satisfied and “2” for fully satisfied. We include five items as a measure of women’s satisfaction. Besides that, we also include a single question that inquires in general, the overall level of women’s satisfaction. We also found that the result of the satisfaction level is similar between the two. However, this study measures the satisfaction as it is measured by Stevenson and Wolfers (2009). For women empowerment, we adopted the questionnaire of Pitt, Khandker and Cartwright (2006). We take the two dimensions of women empowerment (economic decision-making consist on 14 items and freedom of movement consist on 10 items). The measurement scale is "0" for no ability, "1" for sometimes ability and "2" for full ability. Freedom of movement empowerment (WFE) measure the women's freedom of movement ability indoor and outdoor. The measurement scale is "0" for no freedom "1" for sometimes freedom and "2" for full freedom. In the analysis, we include several items as a measure of women’s empowerment (for both WEDE and WM). Besides that, we also include a single question that asks in general, the overall level of women’s empowerment. We made comparison between the average value of several items and the overall level of women’s empowerment. We found that the result of the empowerment level is similar between the two.

Marital status (MS) is measured as either married or unmarried. This study used a dummy variable for the marital status of respondents (MS =1 if married, 0 if unmarried). Microfinance involvement (MFI) is measured as either involved or not involved. This study used a dummy variable
for the MFI of respondents (MFI =1 involve in microfinance, 0 if not involve in microfinance) the measurement of MFI and MS is as Becchetti (2009) measure the marital status. The majority of them have involved in microfinance between 1-3 years while 36 percent have engaged in microfinance for more than 4 years.

Loan size (LSize) is measured through the loan amount which was taken by the woman respondent (expressed in rupee, 1USD = PKR 99) from Khushhali Bank and National Rural Support program working in Punjab province of Pakistan. Age is measured in years; education is measured in level of education while family size is measured in numbers.

3.1 Research Methodology

This study is conducted on Pakistan as considering other countries was not possible because of financial and time constrain. Pakistan has four Provinces and three deserts namely Cholistan, Thal and The Indus Valley Desert are located in Pakistan (Socio-economic and Development Profile of Pakistan, 2012). This study targets only Punjab and selects Cholistan Desert of Punjab. In Cholistan, data was collected from two microfinance institutions National Rural Support Program and Khushhali Bank. This study utilized the random sampling technique and used sample size was based on the criteria suggested by Roscoe's rule of thumb (Uma, S., and Roger, B. 2003) i.e. a sample that is larger than 30 and less than 500 is appropriate. This study selected 372 women who were involve in microfinance and 372 women who were not involve in microfinance. The sampling frame of women who were involved with MFIs was collected from the local offices of the concerned MFIs. Later a list of 100 to 150 women was selected randomly from each selected districts of Cholistan Bahawalpur. Tasquran (2011) also used the same random sampling technique for conducting the research on influence of microcredit on empowerment.

3.2 Model Estimation

The dependent variable women satisfaction is nominal and has three categories so, this study applies multinomial logit model to analyze the hypothesis. Age, education (edu), Family Size (FSIZE) marital status (MS) and income (Inc) are taken as a control variable. While Microfinance involvement (MFI) women economic decision making empowerment (WEDE) and women freedom of movement empowerment (WFE) are taken as an independent variable. Women economic decision-making empowerment and women freedom of women was computed as a single variable to examine its impact on women satisfaction that is donated women empowerment (Wemp). LSize represent to loan size. Hence, the econometric model of this study is as follows:

$$WS = \beta_0 + \beta_1 \text{Age}_i + \beta_2 \text{Edu}_i + \beta_3 \text{FSIZE}_i + \beta_4 \text{Inc}_i + \beta_5 MFI_i + \beta_6 \text{LSize}_i + \beta_7 \text{WEDE}_i + \beta_8 \text{WFE}_i + \beta_9 \text{MS}_i + \beta_{10}(MFI * \text{Wemp})_i + \epsilon_i \ldots (1)$$

Multinomial logit is popular for multinomial choice models. McFadden and Train (2000) explained that a multinomial logit (MMNL) model is for discrete response. Hedecker (2003) stated that multinomial logistic regression model is described for analysis of nominal and ordinal response data. However,
the multinomial probit can be applied only when there is a small number, usually three (Maddala, 1983; McFadden 1984; Park and Kerr, 1990). Ali and Haq (2006) applied the multinomial logit model to examine the impact of education on happiness. In the light of previous studies, this study addresses women’s happiness is measured in subjective measurement, the responses are divided into three categories and are in discrete values. We applied multinomial logit model to achieve the objective of the study.

4.1 Results and Discussion
The Hausman test result all the categories (no satisfaction, sometimes satisfaction and full satisfaction) fulfill the requirement of IIA assumption. Table 1 shows that overall the model is statistically significant as the Prob > chi² = 0.0000. The result shows that control variables age is negatively significant in full satisfied relative to not satisfied, education, family size and income are significant in sometimes satisfied relative to not satisfy and in full satisfied relative to not satisfy. The findings are consistent with the (Asim, 2009; Yasmeen 2015).

In full satisfaction relative to no satisfaction, the variable microfinance involvement (MFI) is positive and significant at 1 percent indicating a positive effect on women’s satisfaction. In sometimes satisfied relative to not satisfy, the coefficient of variable microfinance involvement is not significant. Based on the results, by involving in business through microfinance business, women can make money and can enjoy life with satisfaction along with contributing to their household. The coefficient of the loan size (LSize) variable is positive and significant indicating that loan size positively affects women’s satisfaction it is significant in both sometimes satisfied relative to not satisfy and in full satisfied relative to not satisfy. This can be explained as follows: With small loan size, female borrowers do small size businesses, but with a large amount of loan, the women can do larger size businesses. Bechti (2009) and Bandyopadhyay (2011) also found the positive impact on women satisfaction. In the context of income-happiness paradox, it is stated that in under developing countries like Pakistan there is influence of credit on women happiness.

The coefficient of women economic decision-making empowerment (WEDE) variable is positive and significant in full satisfied compared to not satisfied at five percent. The coefficient of freedom of movement empowerment (WFE) is significant in both cases sometime satisfied and fully satisfied relative to not satisfied condition at 1 and 5 percent respectively. The finding of the study is in line with Yasmeen (2015).
We also hypothesized that the effect of microfinance involvement on women’s satisfaction depends on their empowerment. Hence, we also include the interaction term between microfinance and empowerment as one of the independent variables. The coefficient of this interaction term is significant in the case of fully satisfied compared to those not satisfied. The coefficient of the interaction term between education and microfinance is significant, indicating that the effect of microfinance and empowerment on women's satisfaction does depend on empowerment. This result indicates that the success of the micro business depends on the empowerment. If a woman will have loan she can start business and can be empowered and satisfied with her life.

4.2 Impact of Change in the Explanatory Variable on Women's Satisfaction

The marginal effect of a given variable on the probability of having satisfaction (not satisfied, sometimes satisfied and fully satisfied) is a function of all of the estimated coefficients. Hence, we proceed by calculating the marginal effect of each explanatory variable on the probability of being satisfied. As documented in the Table 2, we find the following results.

If the age (Age) of a respondent increase by one year, the probability of getting full satisfaction is expected to fall by 0.3 percent, while the probability of sometimes satisfied is expected to rise by 0.2 percent. The

Table 1: Results of Multinomial Logit Estimation (Full Sample 744)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sometimes satisfied relative to Not satisfied</th>
<th>Fully satisfied relative to Not satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cons</td>
<td>-1.069 .960</td>
<td>2.993 .797</td>
</tr>
<tr>
<td>Age</td>
<td>.012  .014</td>
<td>-.029 .012**</td>
</tr>
<tr>
<td>Edu</td>
<td>498  .403**</td>
<td>.049 .091**</td>
</tr>
<tr>
<td>FSize</td>
<td>.209  .079***</td>
<td>.159 .071**</td>
</tr>
<tr>
<td>Inc</td>
<td>9.15  2.81***</td>
<td>.000 2.626***</td>
</tr>
<tr>
<td>MFI</td>
<td>.676  .589</td>
<td>1.540 .517***</td>
</tr>
<tr>
<td>LSize</td>
<td>.000  .000</td>
<td>.000 .000***</td>
</tr>
<tr>
<td>WEDE</td>
<td>.209  .080</td>
<td>.159 .071**</td>
</tr>
<tr>
<td>WFM</td>
<td>.135  .051***</td>
<td>.107 .047**</td>
</tr>
<tr>
<td>MS</td>
<td>-.5804 .509</td>
<td>-.965 .405**</td>
</tr>
<tr>
<td>MFI *Wemp</td>
<td>.727  .327</td>
<td>.880 .278***</td>
</tr>
</tbody>
</table>

Probe > chi2 = 0.0000  Log likelihood = -333.32845  Pseudo R2 = 0.1418

Note: ***, ** and * denote that the corresponding coefficient is significant at the 1%, 5% and 10% level, respectively. Not satisfied is the base outcome.
probability of not satisfied is expected to rise by 0.08 percent. If the education of a respondent increases by one year, the probability of getting full satisfaction is expected to rise by 1.4 percent. If the number of family size (FSize) increases by one from its mean value, the probability of getting full satisfaction is expected to rise by 0.1 percent. Probability of getting sometimes satisfaction is expected to rise by 0.3 percent and the probability of getting no satisfaction is expected to fall by 0.4 percent. If the amount of annual income (Inc) of respondent increases by PKR 1000 from its mean value of income, the probability of getting full satisfaction is expected to rise by 44.9 percent. The coefficient of income in the probability of getting sometimes satisfaction is expected to fall by 99.8 percent. The probability of getting no satisfaction is expected to rise by 54.9 percent. If the respondent gets married, the probability of getting full satisfaction is expected to fall by 4.9 percent. The marginal effect of marital status on the probability of getting sometimes satisfaction and dissatisfaction is expected to rise by 20.3 percent and 2.9 percent, respectively.

In particular, if a woman involves in microfinance, the probability of being fully satisfied is expected to rise by 9.4 percent, while the probability of being sometimes satisfied is expected to fall by 4.5 percent. The probability of not satisfied is expected to fall by 4.8 percent. These results suggest that by involving in microfinance, women can increase their full satisfaction while reducing less satisfaction. The coefficient of the marginal effect of loan size (LSize) on the probability of full satisfaction is significant and positive. In particular, if a woman gets loan, the probability of being fully satisfied is expected to rise by 60.3 percent. On the other hand, the probability of not satisfied and sometimes satisfied is expected to fall by 31.6 percent and 28.7 percent, respectively. The marginal effect of women’s empowerment (Wemp) on the probability of fully satisfied is significant. In particular, if a woman is empowered the probability of fully satisfied is expected to rise by 2 percent while the probability of sometimes satisfied is expected to fall by 0.7 percent. The probability of not satisfied is expected to fall by 2.6 percent. These results suggest that by empowerment women can increase their full satisfaction while reducing less satisfaction.

Table 2: Marginal Effect of the MNLM (Full Sample)

<table>
<thead>
<tr>
<th>Variable (Model 5)</th>
<th>Not satisfied</th>
<th>Sometimes satisfied</th>
<th>Fully satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.0008**</td>
<td>0.002***</td>
<td>-0.003***</td>
</tr>
<tr>
<td></td>
<td>(0.035)</td>
<td>(0.001)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Edu</td>
<td>0.002</td>
<td>-0.017**</td>
<td>0.014**</td>
</tr>
<tr>
<td></td>
<td>(0.227)</td>
<td>(0.030)</td>
<td>(0.067)</td>
</tr>
<tr>
<td>FSize</td>
<td>-0.004**</td>
<td>0.003</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.029)</td>
<td>(0.214)</td>
<td>(0.606)</td>
</tr>
<tr>
<td>Inc</td>
<td>0.549</td>
<td>-0.998</td>
<td>0.449**</td>
</tr>
<tr>
<td></td>
<td>(0.652)</td>
<td>(0.640)</td>
<td>(0.853)</td>
</tr>
<tr>
<td>MS</td>
<td>0.0290**</td>
<td>0.203</td>
<td>-0.049**</td>
</tr>
<tr>
<td></td>
<td>(0.031)</td>
<td>(0.367)</td>
<td>(0.068)</td>
</tr>
<tr>
<td>MFI</td>
<td>-0.048***</td>
<td>-0.045**</td>
<td>0.944***</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.020)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>LSize</td>
<td>-0.316***</td>
<td>-0.287**</td>
<td>0.603***</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.021)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Wemp</td>
<td>-0.026***</td>
<td>-0.007</td>
<td>0.033**</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.543)</td>
<td>(0.020)</td>
</tr>
</tbody>
</table>
Note: ***, ** and * denote that the corresponding coefficient is significant at the 1%, 5% and 10% level, respectively. The figures in parenthesis are p-values. Not satisfied is the base outcome.

5. Conclusion

There are lack of the study that examine the influence of women empowerment on their satisfaction. To achieve the objective, cross sectional data is collected from 744 Pakistani household. The results of the multinomial logit model estimation show that the women borrowers are more satisfied than women non-borrowers. In addition, loan size has a significant impact on satisfaction. These findings are in line with the theory of adoption, which demonstrates that income increases satisfaction. So, having income raises up their happiness. The coefficient of age, education, family size and annual income are increase satisfaction while marital status negatively affect satisfaction. It is recommended that the government and other development organizations should work together in addressing this empowerment issue with a better implementation of strategies such as providing more funds for microfinance. This study recommends that organizations should make policies and strategies to promote women’s empowerment programs to boost up women’s happiness.
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INFLUENCE OF MICROFINANCE AND EMPOWERMENT ON SATISFACTION


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