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# The Contribution of Microfinance Institutes in Women-Empowerment and role of Vulnerability

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## Abstract

Women-empowerment is still a problematic area in most of the developing countries including Pakistan. The women contribution is limited and not well acknowledged in most of the developing countries such as Pakistan. As the women contribution to Pakistani economy is only 25-30% which is quite low as compared to most of the developing as well as developed countries. To address this issue, the prime objective of this study is to examine the role of microfinance institutes in women-empowerment in Southern Punjab, Pakistan. To achieve this objective, cross-sectional research design was selected, and survey was carried out to collect the data from female clients of microfinance institutes. Findings of the study revealed that microfinance institutes are most significant to enhance women-empowerment. Services of microfinance institutes such as micro-credit, micro-saving and micro-insurance has significant positive relationship with women-empowerment. However, vulnerability decrease the positive effect of micro-credit on women-empowerment. The current study is significant for microfinance institutes, state bank of Pakistan and government of Pakistan while making the strategies to enhance women-empowerment.

**Keywords:** Microfinance, women-empowerment, micro-credit, micro-saving, microinsurance, vulnerability.

## 1. Introduction

Women-empowerment is a key part of every nation's success. As women are the integral part of every society (Hameed, Nisar, Abbas, Waqas, & Meo, 2019; W. U. Hameed, Mohammad, & Shahar, 2020; Nasir & Farooqi, 2016). Women-empowerment is most valuable for economic development of families and communities (Ekpe, Mat, & Razak, 2010).

It is most crucial for the growth and development of country (Nasir & Farooqi, 2016). However, phenomenon of women-empowerment seems not to be well acknowledged in most of the developing countries, particularly in Pakistan. Therefore, the contribution of women to Gross Domestic Product (GDP) and economy is limited. Therefore, women-

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empowerment is still a problematic area in most of the developing countries including Pakistan.

Women contribution in GDP and nation's economic growth is recorded with an incomparable level in most of the developed and developing countries such as United States (US), United Kingdom (UK), Indonesia and Malaysia. For, instance, women contribution to US is recorded 23-98% in the GDP and USD \$3 trillion contribution to economy through participation in micro-enterprise (Ernest & Young, 2010). In case of UK, women contribution is 50% to annual GDP and 54.1% of total employment, in Indonesia, women contribution is 55% in GDP and 75% contributed to employment opportunities, in Malaysia, 44% in GDP and 56% in employment opportunities through micro-enterprises (Evbomwan, Ikpi, Okoruwa, & Akinyosoye, 2012; Hameed et al., 2019; Norizatun, Abdul Halim, & Chong, 2011). These figures are showing that the women contribution is most important for the success of nation's economy.

However, the women contribution is limited and not well acknowledged in most of the developing countries such as Pakistan. As the women contribution in Pakistan economy is only 25-30% (Ul-Hameed, Mohammad, & Shahar, 2018). This contribution is very low as compared to the other countries as mentioned above. It indicates that the women-empowerment is still a problematic area in Pakistan. Government of Pakistan failed to empower women from past 63 years (Yasmeen, 2015). This is one of crucial problem of low economic growth of Pakistan. To resolve this issue many microfinance institutes are working, however, the result is limited.

Microfinance institutes provides various financial services to reduce poverty and empower its beneficiaries (Razzaq, Maqbool, & Hameed, 2019). It is an idea through which low-income people acquire financial services and enable themselves sufficient to get out from poverty (Ahlawat, 2016). Financial services include micro-credit, micro-saving and micro-insurance. Microfinance has positive effect on women-empowerment and poverty reduction (Al-Shami, Razali, Majid, Rozelan, & Rashid, 2016). Therefore, microfinance factors have significant relationship with women-empowerment.

Over the last two decades, microfinance has evolved into a thriving global industry and it is one of the fastest growing industries worldwide (Garikipati, 2008, 2017; Ghalib, Malki, & Imai, 2015; Roy, 2011). Many microfinance institutes are advocating women-empowerment; however, the women population is living in vulnerable condition

(Sujatha Gangadhar & Malyadri, 2015). As in Pakistan, 3,130 microfinance units are working with gross loan portfolio PKR 108,881 million and covering 99 districts of Pakistan (Review, 2017). Additionally, the participation of women is increasing, and it is more than men.

Thus, an important question is raised. Why the women-empowerment is not achieved in Pakistan? Even, many microfinance institutes are working, and women participation is increasing day by day (Review, 2017). Most of the microfinance institutes are especially focusing on women's advancement. Hence, low women-empowerment is based on some responsible factors. Particularly vulnerabilities which are based on environmental vulnerability, social vulnerability, political vulnerability and economic vulnerability (Banerjee & Jackson, 2017). These vulnerabilities limit the positive contribution of microfinance institutes towards women-empowerment. Therefore, the current study has two prime objectives:

1. To examine the effect of microfinance factors on women-empowerment. These objective leads to the three sub-objectives:
  - 1.1 To study the effect of micro-credit on women-empowerment
  - 1.2 To study the effect of micro-saving on women-empowerment
  - 1.3 To study the effect of micro-insurance on women-empowerment
2. To examine the moderating role of vulnerabilities on the relationship of microfinance factors and women-empowerment.

The current study focused on the Southern Punjab Pakistan. As this area is related to the high poverty areas of Pakistan (Afzal, Rafique, & Hameed, 2015) and more research is required on women-empowerment in this area (Yasmeen, 2015). In Bahawalpur (a part of Southern Punjab) poverty falls from 69.64% to 55%. Moreover, this area consists of two parts. One part consists of desert and other part consists of nearby rivers which threatens women micro-enterprises. Hence, the vulnerabilities are more in this area which are the responsible factors of low women-empowerment.

## 2. Literature Review

### 2.1 Mayoux's Feminist Empowerment Theory

The Mayoux (1998) feminist empowerment theory is one of the prominent theories to discuss women-empowerment. This theory focuses on women social and economic empowerment, particularly in developing countries (Mayoux, 2005).

The core idea to focus women is that, a higher level of women poverty (Mayoux, 2005). As the 70% poverty belongs to poverty worldwide (Kabeer, 2012). This theory is one of the entry points of microfinance to women-empowerment. According to framework of Mayoux (2005), provision of opportunities to women such as credit and saving increases the decision-making power. Women invest credit into micro-enterprises which generate income and income increases the economic empowerment among women. It also enhances social empowerment by increasing the decision-making ability of women. It increases the social capital by enhancing the network. It focusses on poor women and women who can play a role for change (Mayoux, 2006). This theory focuses on equity and equality among men and women. As the decrease in gender discrimination leads to enhance women social and economic empowerment. Finally, this theory tries to enhance women-empowerment by using microfinance factors.

**2.2 Relational Theory of Risk**

This is the underpinning theory which explains the vulnerability effect on women-empowerment. Relational theory of risk is based on three elements: an object at risk, a risk object, and a relationship of risk (Boholm & Corvellec, 2011). These three variables are interlinking with each other's which explains the effect of one object on another object.

An object at risk is based on any object having some value which is at stake due to the risk object. Risk object is based on an entity that threatens the object at risk. It is an object consists of different identity traits pertaining to danger and harm. These risks may involve hazards such as any environmental change, social issues such as discrimination among men and women, low income level and political issues. As vulnerability consists of different hazards such as natural disasters, climate changes, physical hazards, economic problem of women, social problems, political issues and any other dangerous objects (Banerjee & Jackson, 2017; Birkmann, 2006; McEntire, Gilmore Crocker MPH, & Peters, 2010; Stewart, 2007). The relationship of risk object and an object at risk is known as the third element of this theory which is relationship of risk. In the current study, vulnerability is considered to be a risk object, women-empowerment is considered as an object at risk and the relationship of these two is the third element of this theory. Additionally, the relationship of microfinance factors (micro-credit, micro-saving, micro-insurance) and women-empowerment is a valuable relationship, hence, this relationship is also considered as an object. The value of this relationship is at stake due to vulnerability. The equation of this theory is given below.

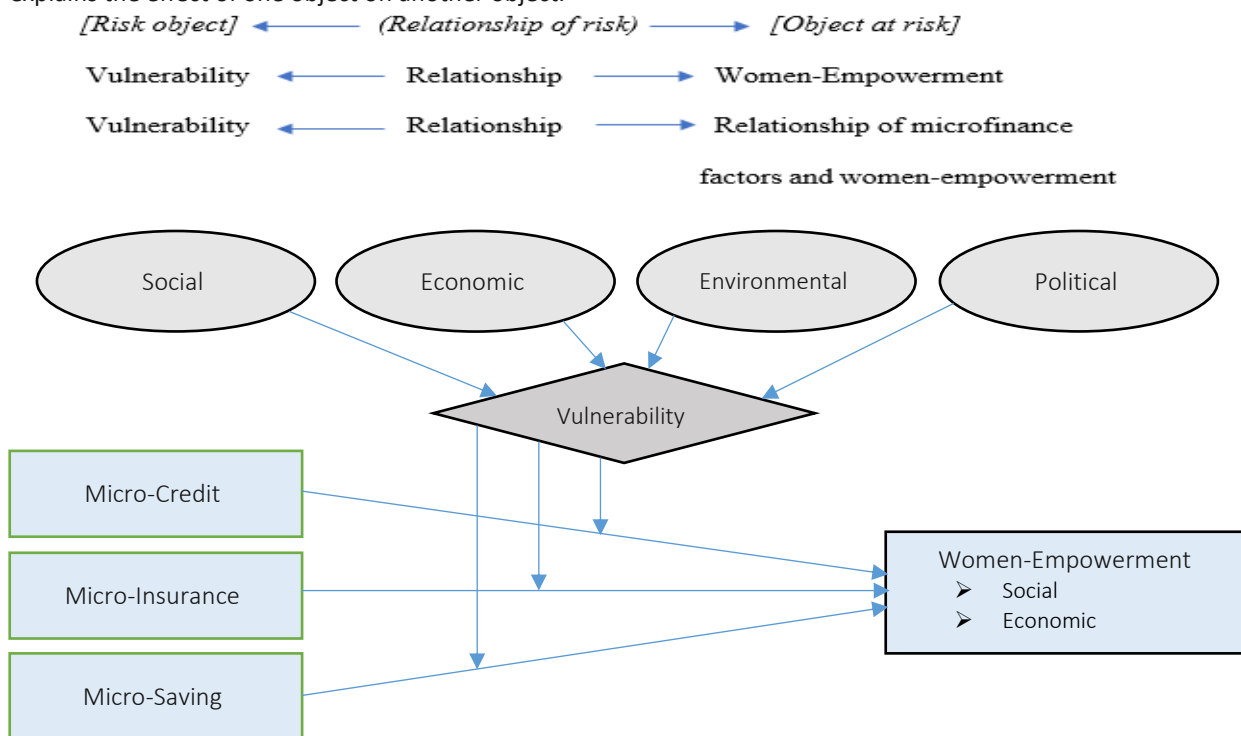


Figure 1: Theoretical Framework

### 2.3 Women-Empowerment

Women-empowerment is one of the process of equipping women to be economically independent, self-reliant, and having positive esteem that enables women to face any challenging situation as well as to contribute to various development activities (Kapila, Singla, & Gupta, 2016). In this process women get more control over the different resources, human and control over intellectual resources involves information, knowledge, idea, financial resources such as money and control on decision making power at household level, community level, nation level and gain more power (Jamal, Raihana, & Sultana, 2016).

Microfinance institutes are trying to enhance women-empowerment by their services such as micro-credit, micro-saving and micro-insurance. Because microfinance has been considered to be a useful tool to alleviation the poverty and enhance women-empowerment (Leach & Sitaram, 2010). As the microfinance services have significant positive relationship with women-empowerment.

### 2.4 Hypothesis Development

#### 2.4.1 Micro-Credit and Women-Empowerment

Microcredit is one of the important microfinance services which offers small loan to improve existing small-scale business of poor people or establish a new one (Kessy, Msuya, Mushi, Stray-Pedersen, & Botten, 2016). It is a provision of cash and a smaller amount of loan to self-employed people to improve their small business (Asiama & Osei, 2007). It improves women income and also increase the decision-making power (Kapila et al., 2016). Microfinance institutes provide credit to poor women and these women invest this credit in micro-enterprises which generate income and enhance decision making power. Therefore, micro-credit has positive role to enhance social as well as economic empowerment of women community. According to Al-Shami et al. (2016), credit enhance women-empowerment by decreasing the issue of gender equality.

Moreover, according to Zoynul and Fahmida (2013), micro-credit enhances the social and women economic empowerment. On the other hand, Atmadja, Su, and Sharma (2016) found that financial capital has negative impact on women micro-enterprise. As the micro-enterprise generate income and enhance empowerment, in case of negative impact it decreases the income which leads to decrease in women-empowerment. Additionally, micro-credit is not a good indicator of empowerment Garikipati (2013).

Hence, sometimes micro-credit shows negative, less effect or no effect at all. It is due to the vulnerabilities which effect the women micro-enterprises adversely. Vulnerability "involves a combination of factors that determine the degree to which someone's life and livelihood are put at risk by a discrete and identifiable event in nature or society" (Wisner, Blaikie, Cannon, & Davis, 2004). Particularly in Southern Punjab Pakistan, vulnerabilities are linked with desert, nearby rivers, social problems and political issues. Deserts consists of windstorms, water and food scarcity, less rainfall and different diseases. Social vulnerability includes single earning hand, physical disability and discrimination. On the other hand, in other part of this area, nearby rivers cause flood in rainy season which effect agriculture areas and other women micro-enterprises. This area is also politically vulnerable. Thus, in this area, vulnerabilities disturb the income generating activities of poor women which effect negatively on women-empowerment and microfinance services. Hence, it is hypothesized that:

**H<sub>1</sub>:** Micro-credit has a significant relationship with women-empowerment

**H<sub>2</sub>:** Vulnerability moderates the relationship between micro-credit and women-empowerment.

#### 2.4.2 Micro-Saving and Women-Empowerment

Micro-saving based on saving accounts which increases the saving (Ashraf, Karlan, & Yin, 2006). It is one of the microfinance services which enables people to save their assets with the help of weekly saving and also to contribute to group saving (Mkpado & Arene, 2007). Microfinance institutes provides the opportunity of individual and group saving.

Micro-saving enhances the productivity of rural women (Knowles, 2013). As saving is one of the microfinance services which has long lasting effect on women (Dupas & Robinson, 2013). According to Bernard, Kevin, and Khin (2016), saving has positive impact on women microenterprises. Therefore, it enhances the income from microenterprises which automatically boost up women-empowerment.

Nevertheless, micro-saving promotes women empowerment (Ashraf, Karlan, & Yin, 2010) and help people to resolve their health emergencies (Dupas & Robinson, 2013). On the other hand, as discussed above, financial capital which is also include savings have negative impact on women micro-enterprises (Atmadja et al., 2016). This negative effect is due to the vulnerabilities which reduces the positive impact

of microfinance institutes on women. Poor women utilize their savings to mitigate the effect of vulnerabilities and could not invest in income generating activities. Therefore, vulnerabilities moderate the relationship between micro-saving and women-empowerment. Hence, it is hypothesized that:

**H3:** Micro-saving has a significant relationship with women-empowerment.

**H4:** Vulnerability moderates the relationship between micro-saving and women-empowerment.

#### 2.4.3 Micro-Insurance and Women-Empowerment

Micro-insurance is the protection of people having low income against specific hazards in exchange for regular premium payments proportionate to likelihood which involves a cost of risk (Churchill, 2006). Microfinance institutes provide various financial services including business insurance facility to help poor people in a vulnerable economic situation for protection. It makes them capable of purchasing assets and these facilities frequently ignored by the commercial banks (Najmi, Bashir, & Zia, 2015).

Poor people manage shocks by using various strategies including formal group based and self-insurance (M. Cohen, McCord, & Sebstad, 2005). These shocks include vulnerabilities such as floods, water scarcity, windstorms, any other natural disaster, social, economic political issues. However, use of finance to mitigate vulnerabilities restrict women to invest in income generating activities which reduces the positive contribution of insurance to enhance women-empowerment. Vulnerabilities destroys the micro-enterprises of poor women and most of the women use insurance to mitigate the effect of vulnerabilities. Hence, micro-insurance is one of the tools to enhance women-empowerment. However, vulnerabilities moderate this relationship. Therefore, it is hypothesized that:

**H5:** Micro-insurance has a significant relationship with women-empowerment.

**H6:** Vulnerability moderates the relationship between micro-insurance and women-empowerment

### 3. Research Methodology

The current study is based on quantitative research approach and using cross sectional research design. A survey instrument was used to collect the primary data from female clients of microfinance institutes in Southern Punjab, Pakistan.

#### 3.4.1 Population and Sampling

The current study is based on the relationship of microfinance institutes and women-empowerment. Therefore, the population of the current study is the female clients of microfinance institutes which are involved in microfinance services.

Area cluster sampling was used to collect the data. Furthermore, the sampling is divided into four steps.

1. Southern Punjab is divided into 10 clusters based on cities.
2. 05 clusters are selected randomly (Bahawalpur, Rahim Yar Khan, Muzaffargarh, Dera Ghazi Khan, Bahawalnagar).
3. Sample size of each clusters is selected based on below formula.

$$nz = (Nz/N) * n$$

Where,

$nz$  = required sample size for each cluster,  $Nz$  = total population of each cluster,  $N$  = total population size in all clusters,  $n$  = total sample size

According to the estimation total female clients having participation in all microfinance services such as credit, saving, insurance, training/skill development programs and social capital development activities are 143,000 approximately. However, in Bahawalpur, these clients are 29500, in Rahim Yar Khan 21000, in Muzaffargarh 17000, in Dera Ghazi Khan 18500 and Bahawalnagar 14500, approximately (Ul-Hameed et al., 2018). The total sample size in this study is 500. Now the sample size for each cluster is calculated below by using the above formula.

Bahawalpur:  $nz = (29,500/100,500) * 500 = 147 = 29.4\%$

Rahim Yar Khan:  $nz = (21,000/100,500) * 500 = 104 = 20.8\%$

Muzaffargarh:  $nz = (17,000/100,500) * 500 = 85 = 17\%$

Dera Ghazi Khan:  $nz = (18,500/100,500) * 500 = 92 = 18.4\%$

Bahawalnagar:  $nz = (14,500/100,500) * 500 = 72 = 14.4\%$

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500      100%

4. Selection of respondents are made randomly from Bahawalpur 147, Rahim Yar Khan 104, Muzaffargarh 85, Dera Ghazi Khan 92 and Bahawalnagar 72.

### 3.4.2 Sample Size

Regarding the sample size for this study, it is based on the Krejcie and Morgan (1970) table for sample size calculation. Total women participants in Southern Punjab is more than 100,000. By following the recommendations of Krejcie and Morgan (1970) if the population is more than 100,000, then the sample size should not be less than 384. Thus, the sample size of the current study is 500 female participants of microfinance institutes in Southern Punjab, Pakistan.

### 3.4.2 Measurements

Women-empowerment is measured based on four indicators namely; family decision making, freedom of mobility, economic security and household economic decision making. Micro-credit is measured based on process, interest rate, amount (size), procedure and repayment period. Micro-saving is measured based on interest rate, process, product options and need of saving. Micro-insurance is measured based on benefits of insurance, variation in policies, instalment and repayment. Finally, vulnerability is measured based

on environmental factors, social factors, economic factors and political factors. All these measures were adapted from previous studies.

5-point Likert scale was used to collect data from female clients of microfinance institutes. Instrument of the current study was adapted from previous studies such as women-empowerment was adapted from Sujatha Gangadhar and Malyadri (2015) and Nawaz, Jahanian, and Manzoor (2012), micro-credit, micro-saving and micro-insurance was adapted from Bernard et al. (2016) and vulnerability was adapted from Stewart (2007).

### 4. Analysis

The current study utilized Partial Least Square (PLS)-Structural Equation Modeling (SEM) to analyse the data. Various prior studies recommended that it is most appropriate technique to analyse the primary data (Henseler, Ringle, & Sinkovics, 2009; Reinartz, Haenlein, & Henseler, 2009). Henseler et al. (2009) recommended various steps of PLS-SEM as shown in Figure 2.

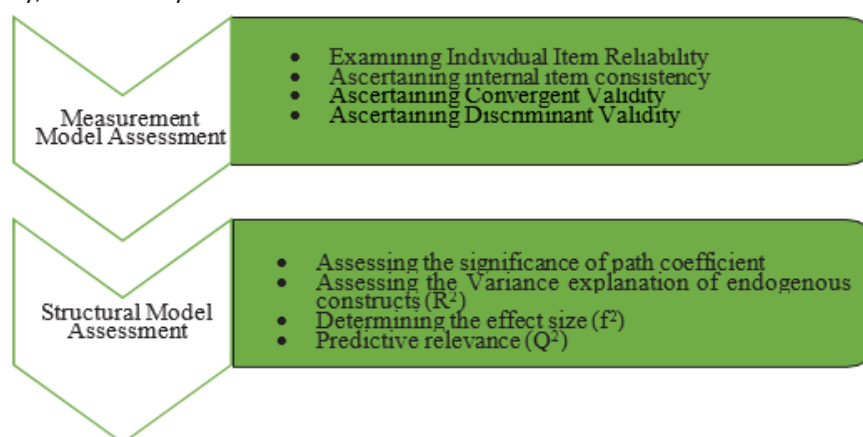


Figure 2. PLS-SEM Steps

Source: Henseler, Ringle and Sinkovics (2009)

### 4.1 Measurement Model Assessment

By following the recommendations of prior studies, the individual item reliability was assessed by considering the outer loadings of each item of each construct (Duarte & Raposo, 2010; F. Hair Jr, Sarstedt, Hopkins, & G. Kuppelwieser, 2014; Joseph F Hair, Sarstedt, Pieper, & Ringle, 2012; Hulland, 1999). Thus, the factor loadings of all items were examined. According to Joseph F Hair, Black, Babin, Anderson, and Tatham (2010), items having 0.4-factor loading should be deleted. In the current study, all the items have factor loadings between 0.511 to 0.912. To measure the internal consistency reliability, the most commonly used estimators is

Cronbach's alpha and composite reliability coefficients as it is mentioned by different prior studies (Bacon, Sauer, & Young, 1995; McCrae, Kurtz, Yamagata, & Terracciano, 2011; Peterson & Kim, 2013). Both Cronbach's alpha and composite reliability (CR) coefficients are above 0.7 which is minimum threshold level in this study.

Moreover, convergent validity was achieved through average variance extracted (AVE). According to Fornell and Larcker (1981), convergent validity requires equal or above 0.5 level of average variance extracted (AVE). Therefore, to achieve the convergent validity, the AVE should be above 0.5 as recommended by Chin (1998). Additionally, Joseph F

Hair et al. (2010) explained that the convergent validity is achieved when the factor loadings of all the items of a construct are higher than 0.5. Figure 3 shows the factor loadings and AVE value. Table 1 depicts the measurement model results.

Furthermore, in the current study, discriminant validity was achieved by using the square root of AVE, as suggested by Fornell and Larcker (1981). It is shown in Table 2.

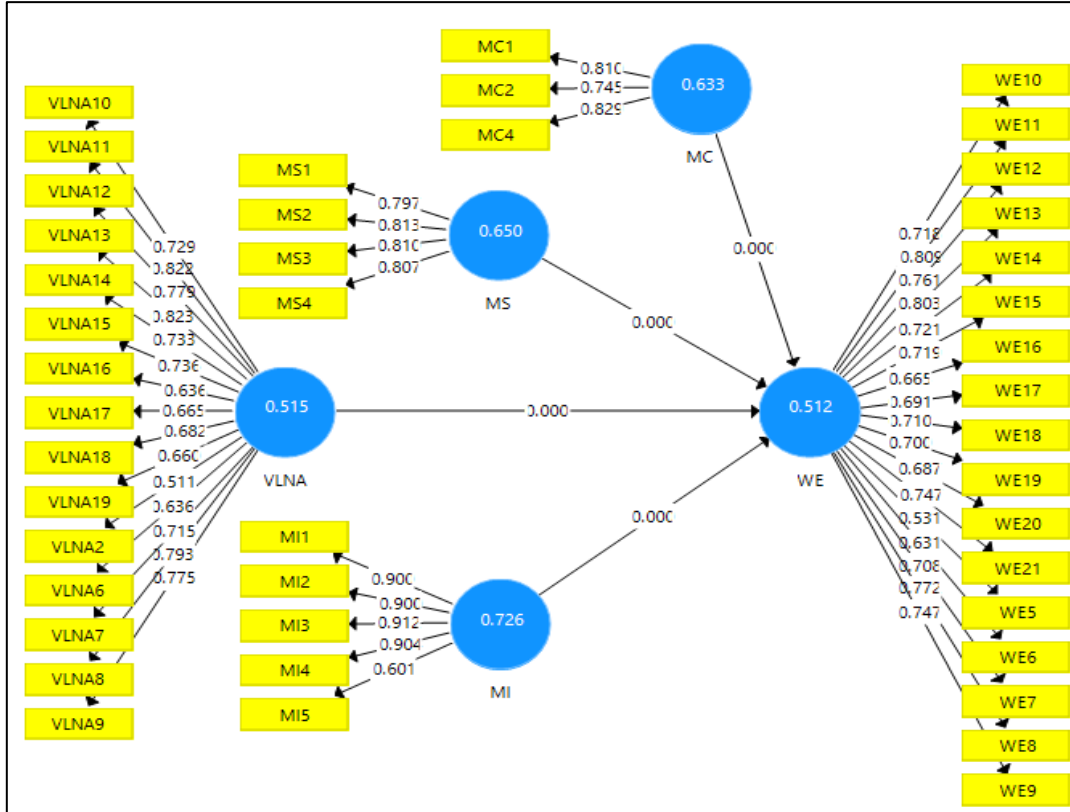


Figure 3. Theoretical Framework

Table 1: Internal Consistency, Convergent Validity and Average Variance Extracted (AVE)

Construct	Indicators	Loadings	Alpha	CR	AVE
Micro-Credit (MC)	MC1	.810	.717	.837	.633
	MC2	.745			
	MC4	.829			
Micro-Saving (MS)	MS1	.797	.821	.882	.650
	MS2	.813			
	MS3	.810			
	MS4	.807			
Micro-Insurance (MI)	MI1	.900	.899	.928	.726
	MI2	.900			
	MI3	.912			
	MI4	.904			
	MI5	.601			
Vulnerability (VLNA)	VLNA2	.511	.931	.940	.515
	VLNA6	.636			
	VLNA7	.715			
	VLNA8	.793			
	VLNA9	.775			
	VLNA10	.729			
	VLNA11	.822			
	VLNA12	.779			
	VLNA13	.823			
	VLNA14	.733			
	VLNA15	.736			
	VLNA16	.636			
	VLNA17	.665			
	VLNA18	.682			
Women-Empowerment (WE)	WE5	.531	.940	.947	.512
	WE6	.631			
	WE7	.708			
	WE8	.772			
	WE9	.747			
	WE10	.718			
	WE11	.809			
	WE12	.761			
	WE13	.803			
	WE14	.721			
	WE15	.719			
	WE16	.665			
	WE17	.691			
	WE18	.710			
WE19	.700				
WE20	.687				
WE21	.747				



Table 2. Discriminant Validity

	MC	MI	MS	VLNA	WE
MC	0.795				
MI	0.747	0.852			
MS	0.489	0.480	0.807		
VLNA	0.633	0.662	0.613	0.718	
WE	0.655	0.680	0.610	0.694	0.716

4.2 Structural Model Assessment

After examining the measurement model, the study examined the structural model as shown in Figure 4. In this direction, PLS bootstrapping was performed and 353 cases to determine the significance of the structural model. This procedure

was followed by the instructions of various previous studies (F. Hair Jr et al., 2014; Joe F Hair, Ringle, & Sarstedt, 2011; Joseph F Hair et al., 2012; W. Hameed & Naveed, 2019; Henseler et al., 2009; Ul-Hameed, Mohammad, Shahar, Aljumah, & Azizan, 2019).

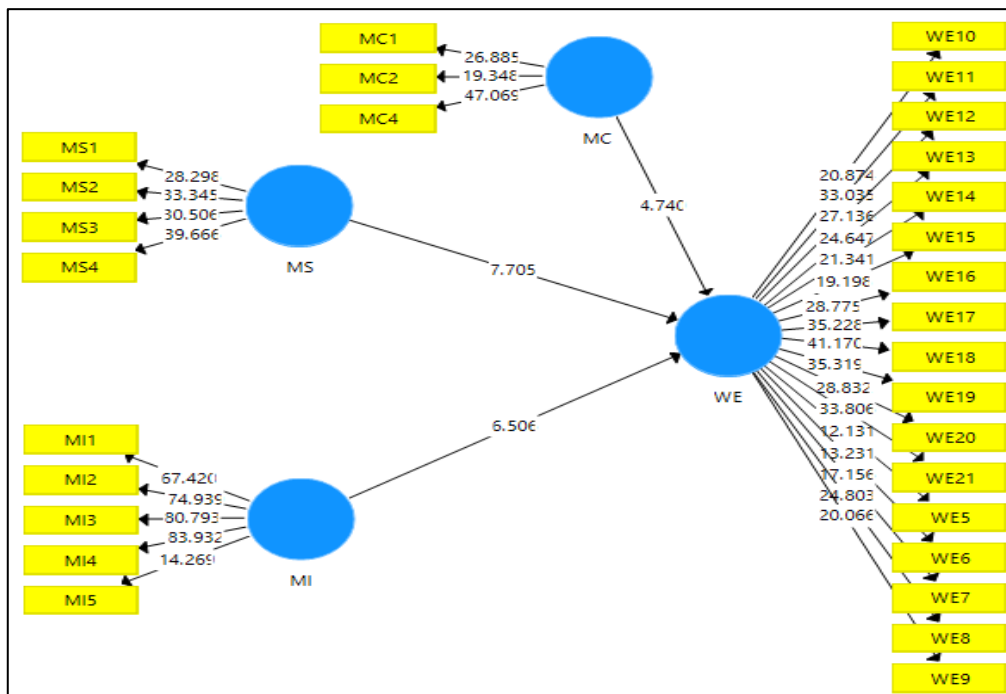


Figure 4. Structural Model Assessment

Table 3. Structural Model Results

Hypotheses	Std. beta	Std. Error	t-Value	Decision	R <sup>2</sup>	f <sup>2</sup>
H <sub>1</sub> MC -> WE	0.258	0.054	4.74	Supported	0.619	0.073
H <sub>5</sub> MI -> WE	0.358	0.055	6.506	Supported		0.142
H <sub>3</sub> MS -> WE	0.315	0.041	7.705	Supported		0.191

Table 3 depicts the hypotheses testing results. According to these results, micro-credit and women-empowerment shows significant positive relationship ( $\beta = 0.258$ ,  $t = 4.74$ ). The relationship between micro-saving and women-empowerment

also found positive and significant ( $\beta = 0.315$ ,  $t = 7.705$ ).

In line with these results, relationship between micro-insurance and women-empowerment was found significant positive ( $\beta = 0.358$ ,  $t = 6.506$ ). Thus, these results supported H<sub>1</sub>, H<sub>3</sub> and H<sub>5</sub>. In case of

moderation effect of vulnerability, Figure 5 shows the moderation effect and Table 4 shows the results of moderation effect. The moderation effect of vulnerability between micro-credit and women-empowerment found significant ( $\beta= -0.023$ ,  $t= 2.775$ ). The moderation effect of vulnerability

between micro-saving and women-empowerment found significant ( $\beta= 0.023$ ,  $t= 3.452$ ). However, the moderation effect between micro-insurance and women-empowerment found insignificant ( $\beta= 0.009$ ,  $t= 1.052$ ). Moderation effect are given in Table 4.

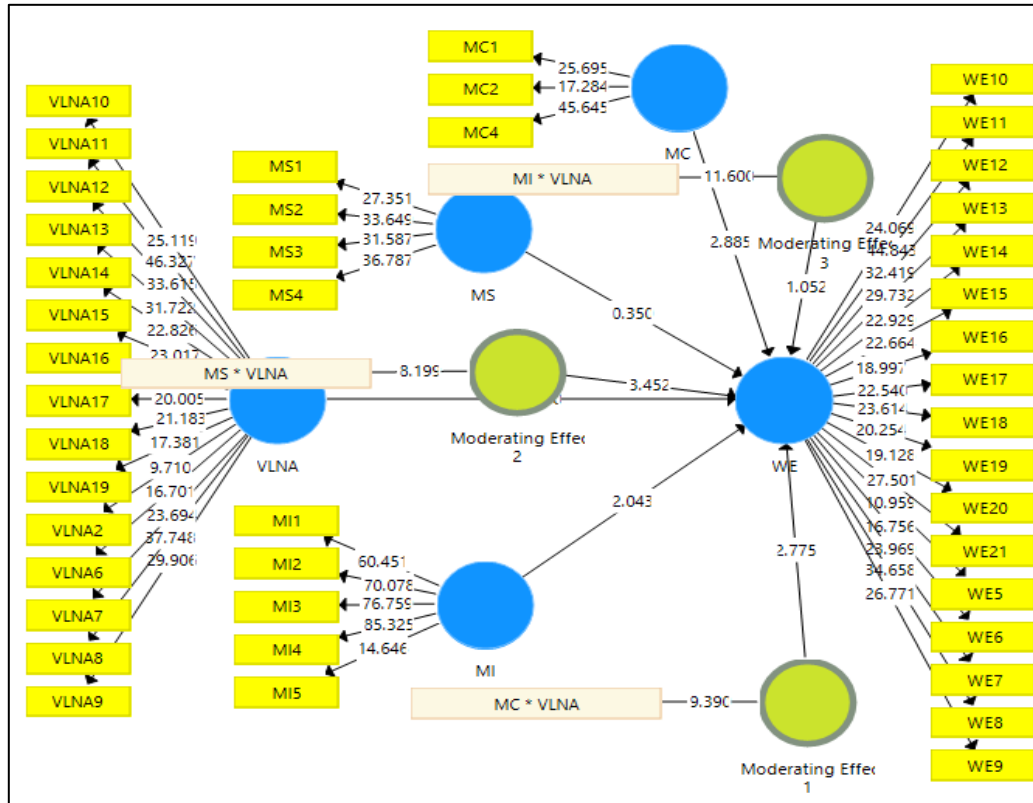


Figure 5. Structural Model Assessment (Moderation Effect)

Table 4. Moderation Results

	Std. beta	Std. Error	t-Value	L.L	U. L	Decision
MC* VLNA-> WE	-0.023	0.008	2.775	-0.038	-0.007	Supported
MS* VLNA-> WE	0.023	0.007	3.452	0.010	0.036	Supported
MI* VLNA-> WE	0.009	0.009	1.052	-0.005	0.028	Not Supported

In Figure 5 and Table 4, it is evident that vulnerability moderation the relationship in case of micro-credit and micro-insurance. However, Figure 6 and 7 shows the direction of moderation effect. Figure 6 shows that vulnerability is one of the moderating variables which decreases the positive relationship between micro-credit and women-empowerment. On the other hand, Figure 7 shows

that vulnerability is one of the moderating variables which increases the positive relationship between micro-credit and women-empowerment. Thus, vulnerability weakens the relationship of micro-credit and women-empowerment. It strengthens the relationship between micro-saving and women-empowerment.

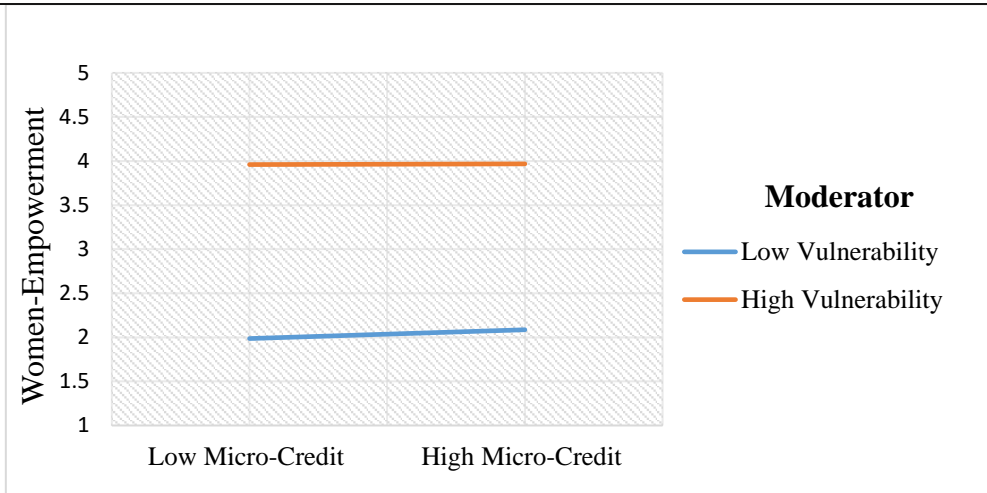


Figure 6. Moderation effect of vulnerability between micro-credit and women-empowerment

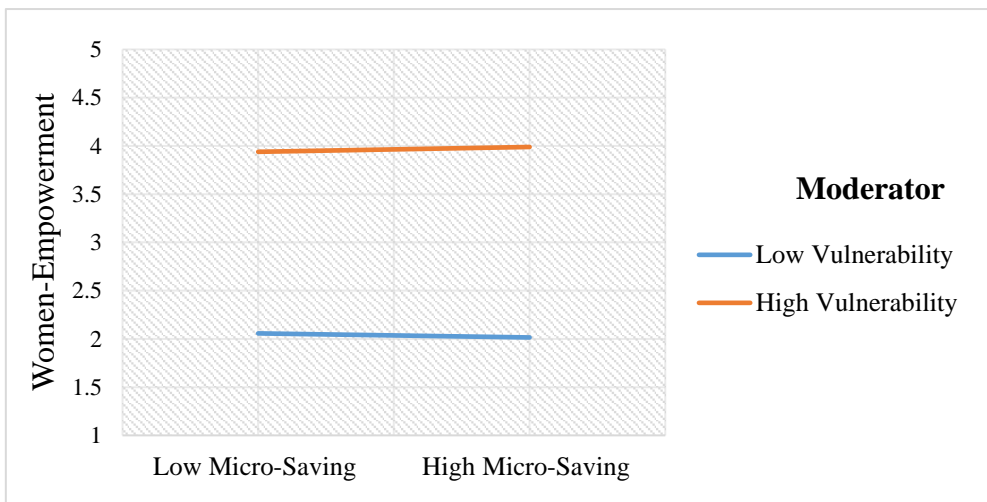


Figure 7. Moderation effect of vulnerability between micro-saving and women-empowerment

In the final part of analysis, Table 5 demonstrates the predictive relevance ( $Q^2$ ). F. Hair Jr et al. (2014) and Chin (1998) demonstrates that the predictive relevance ( $Q^2$ ) is a standard to examine how well a model predicts the data of omitted cases. Additionally, as described by F. Hair Jr et al. (2014) that  $Q^2$  value is attained by using the blindfolding “to

assess the parameter estimates” and also assess “how values are built around the model”. The  $Q^2$  clarifies the quality of the overall model. According to the Henseler et al. (2009), in a research model, if the  $Q^2$  value found greater than zero, it is considered that the model has a predictive relevance.

Table 5. Predictive relevance ( $Q^2$ )

	SSO	SSE	$Q^2 (=1-SSE/SSO)$
Women-Empowerment	6,001.00	3,175.61	0.471

Additionally, effect size ( $f^2$ ) is shown in Table 3. J. Cohen (1988) recommended the different values of  $f^2$ , according to these values, 0.02 is considered a small  $f^2$ , 0.15 considered as moderate  $f^2$  and 0.35 is

considered a strong  $f^2$ . In this study, micro-credit has small  $f^2$  (0.073), as given in Table 3, micro-saving has moderate  $f^2$  (0.191) and micro-insurance also has small  $f^2$  (0.142). Finally, the r-square ( $R^2$ ) value in the

current study is 0.619 which is substantial accounting to the recommendations of Chin (1998). It is shown in Table 3. It demonstrates that all the exogenous latent variables are expected to bring 61.9% change in endogenous latent variable.

### 5. Discussion and Conclusion

The current study carried out to examine the role of microfinance institutes in women-empowerment. The role of environmental, social, economic and political vulnerability was also examined. Data were collected from female clients of microfinance institutes in Southern Punjab, Pakistan and analysed with the help of Partial Least Square (PLS)-Structural Equation Modeling (SEM).

Findings of the study revealed that microfinance institutes are most significant to enhance women-empowerment. Services of microfinance such as micro-credit, micro-saving and micro-insurance has significant positive relationship with women-empowerment. Provision of these services has the ability to decrease poverty among women and increases their social and economic well-beings. Financial capital (micro-credit, micro-saving, micro-insurance) from microfinance institutes make them capable to run their businesses which increases the income and decision-making power of women. However, vulnerability decreases the positive effect of micro-credit towards women-empowerment. Vulnerability act like a limiting factor which weaken the positive relationship of micro-credit and women-empowerment.

The results of the current study are consistent with prior studies. Nader (2008) conducted a research study on microcredit and the socio-economic wellbeing of women in Cairo. The author found that micro-credit is one of the most significant elements which enhances the women socio-economic well-being. According to Nader (2008), credit is most important to reduce poverty and has a positive association with women's socio-economic wellbeing. Micro-credit has the ability to increase the socio-economic empowerment of females by reducing the poverty level (Kodamarty & Srinivasan, 2016). Because it significantly advances the income and women decision-making power (Kapila et al., 2016). Thus, with the increase in income, it also enhances the social empowerment among the female community. When women get a loan from microfinance institutes, they decide to utilize it which creates social empowerment. It also allows females to take part in household decision-making process.

Most of the previous studies also have the same findings. Ashraf et al. (2010) conducted a research study on saving products in the Philippines. The author found that savings enhance the empowerment through an increase in female decision-making power within the household. Increase in decision making power increases the social empowerment among the female community. Moreover, Bernard et al. (2016) found that saving has a significant positive relationship with women micro-enterprise success. Increase in micro enterprise success generates income which enhances women economic empowerment.

A study conducted on micro-insurance, women-empowerment and self-help groups by Amudha, Selvabaskar, and Motha (2014) in Tiruchirappalli, indicates that micro-insurance improves the socio-economic empowerment by providing shelter against the hazards of low-income people in exchange of a premium in proportion with the possibility and cost of risk associated. Another study conducted in India by Rajeswari (2012) on the role of insurance corporation in women-empowerment found a positive association between insurance and women-empowerment. Furthermore, micro-insurance is one of the mechanisms of social security, and it also elevates the standard of living of poor people (Kishor, Prahald, & Loster, 2013). Therefore, it has a positive impact on women-empowerment by reducing poverty level (Rao, 2008). Thus, these studies are consistent with the results of the current study. However, again, Atmadja et al. (2016) are inconsistent with the findings of the current study.

However, findings of the study demonstrated that vulnerability factors such as environmental, social, economic and political has negative influence in case of micro-credit. Because the women get loan from microfinance institutes, invest in micro-enterprise, but their micro-enterprises destruction due to vulnerability and they face the repayment issues of loan. In this case, women sell their assets to repay the loan which drag them towards deeper poverty. As mentioned by Herath, Guneratne, and Sanderatne (2015) vulnerability reduces women-empowerment. Increase in vulnerability factors such as environmental, social, economic and political will decrease the women-empowerment.

#### 5.1 Contribution of the Study

The conceptual framework of the current study was drawn based on empirical evidence as well as theoretical gaps identified in the prior literature. The support and explanation for the framework were

drawn from two theoretical perspectives, i.e. Mayoux's Feminist Empowerment Theory and Relational Theory of Risk. In this study, the vulnerability was incorporated as a moderating variable to understand better as well as explain the relationship between microfinance factors and women-empowerment. According to the Mayoux's Feminist Empowerment Theory, microfinance increases the women-empowerment. However, from the results of the current study, in the areas like Southern Punjab, Pakistan, where the vulnerability factors exist, the theory fails to justify this statement. In these areas, microfinance is not beneficial to reduce poverty and enhance women-empowerment. Therefore, vulnerability could be served as one of the limitations of the Mayoux's Feminist Empowerment Theory. Thus, this study contributed by findings the limitation of Mayoux's Feminist Empowerment Theory through examining moderating role of vulnerability.

### 5.2 Implications of the Study

This study has more importance for microfinance institutes. As the fundamental objective of microfinance institutes is to reduce the poverty level and enhance women-empowerment, therefore, microfinance institutes could take help from this study to improve women-empowerment. Thus, this study revealed that why microfinance institutes are still not able to empower women in Southern Punjab Pakistan even the hundreds of microfinance institutes are working in this area. The reason is that vulnerability factors destroy the women micro enterprise which effects negatively. Therefore, this study is a major importance for microfinance institutes, particularly those microfinance institutes which are working in Southern Punjab, Pakistan. This study is also important for the Government of Pakistan and State Bank of Pakistan (SBP) to get clues while making the strategy for women-empowerment. As this study revealed important points to enhance women-empowerment. This study is also important for Government of Pakistan and State Bank of Pakistan because it highlights various reasons that why women-empowerment is not yet achieved in Southern Punjab, Pakistan, even hundreds of branches of microfinance institutes are working form many decades in this region. Thus, in future government of Pakistan can make better strategies to enhances women-empowerment by reducing the vulnerability issues.

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