iRASD Journal of Economics



Volume 3, Number 2, 2021, Pages 212 - 222



Journal Home Page: https://journals.internationalrasd.org/index.php/joe

Into the Civic life: The Nexus of Urbanization, Education and Women's Empowerment in Pakistan

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ARTICLE INFO

Article History:

Received: August 13, 2021 Revised: September 29, 2021 Accepted: September 30, 2021 Available Online: September 30, 2021

Keywords:

Women empowerment Education Urbanization Domestic credit Time series Principle component

JEL Classification Codes:

B54, O18, C32, C38

ABSTRACT

Women comprise nearly 50 percent of the population of Pakistan which is enriched with a variety of regional, cultural, and ethnic values. These values are traditionally responsible for limiting opportunities for women and keeping them less empowered. This study examines the link between education and urbanization that is empowering women in Pakistan. Time series data for the period of 1980 to 2019 has been used for empirical analysis. The stationarity of data has been checked by using the ADF unit root test. All the variables used in the study have a unit root at the level and become stationary at first difference. Johansen's cointegration technique is utilized to check the long-run relationship between the variables used in the study. Instead of using any single variable, we have constructed the Women Empowerment Index (WEI) by using multiple women-related indicators for in-depth analysis. Empirical findings indicate that women's empowerment is positively associated with education and urbanization in Pakistan. Other controlled variables include domestic credit with a positive association and inflation with a negative association. The study shows that empowering women is sensitive to urbanization and education. There must be women-specific educational and training institutions across the country with a special focus on rural areas for equal availability of opportunities for women of all cultures. Urbanization provides greater social, economic and political opportunities for women. Same opportunities should be provided for women in rural areas to make them more empowered. Moreover, control of inflation and the provision of credit on easy terms will also help to enhance women's contribution to economic activity in Pakistan.



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1. Introduction

Pakistan is a lower-middle-income country. It comprises multiple population groups with different cultural and traditional values based on religious and geo-socio backgrounds. Women, almost half of the population of the country (48.45%), are still living a less entitled life in Pakistan as compared to men. Although, the Constitution of Pakistan offers equal rights to each gender yet women are discriminated against in employment opportunities and health and education facilities (Sadaquat, 2011). However, the importance of women empowerment, in the context of poverty elevation, sustainable development and happy family life is being accepted gradually

around the world (Boserup, Tan, & Toulmin, 2013; Ellis, 2007; Hiller, 2014; Klasen, 2002; Morrisson & Jutting, 2004; Prettner & Strulik, 2016).

Women empowerment is a multidimensional and complex phenomenon. It means the provision of choices to women to uplift their social, cultural, political and economic strength including greater access to economic and social resources. Social sources include education, health care, and hygienic food (Shafiq & Gillani, 2018). Economic resources refer to the provision of credit, ownership of assets and employment (Kabeer, 2001; Pitt, Khandker, & Cartwright, 2006; Shittu, Hassan, & Nawaz, 2018). The autonomy of decision-making in political and economic spheres is another aspect of empowering women (Chien et al., 2021; Kabeer, 2005).

Women perform a lot of indoor and outdoor activities. The former includes childbearing and caring, cooking food and looking after the family members. Working in the fields is their outdoor accomplishment. But both of these contributions are granted the status of only household activities and not the labor force participation activity (Anker, 1983). Women were not facilitated to participate in government-related activities, law-making and achieving the advanced knowledge of science and arts in the past. But by empowering women to participate in the above mention matters will increase family income and trim down poverty (Kelly, 2014).

Urbanization is considered a permanent and compelling push across the globe. The formation of new urban areas is more rapid now; one because of the facilities, rewards and opportunities the civic culture offers and the other is the increase in population. Women can also benefit from it (as it offers amplified livelihood, education opportunities, employment and just political rights) by becoming a part of the enterprise economy. Since the concept of urbanization is multi-layered, its impact on women's empowerment is also complicated and collateral (Cinar & Kose, 2018). The significance of education is core for every individual but education for women is essential as an educated woman leads to achieving the objective of a civilized family and contributes towards the social and economic welfare of society. Sadly, the potential of women around the globe remained underrated. The suppression of women's rights has been in practice for so long that the idea of women empowerment first came into the limelight at an international conference in 1985 in Nairobi (Sandhya, 2015). In the current century, the role of women in a civilized society and growing economy has been linked with education and equal opportunities. In both developing and developed countries, the purpose of migration is common; for the sake of better employment opportunities.

Goldin (1994) empirically tested the data of more than 100 developing and developed countries for women's participation in the workforce and economic development. The study found that as a country embraces a high growth rate, there is a sectoral shift from agricultural to industrial and services sectors. Since women are more likely to be a contributor to agriculture, this sector shift may cause women participation in labor to fall. However, initiating structural modifications like acquiring higher education levels can enhance the role of women in metropolises. In underdeveloped countries, rural women are involved in household duties as well as outdoor work in fields. The basic reason for the urban migration of rural women is to get away from the hard work of village life which is both unpaid and unacknowledged (Erman, 1997). Besides the escape from hard work, rural women want city life for their comfort and financial independence. So, the motive of urban migration of women is to flee from house chores and enter the labor market of the cities where the women can earn money to empower themselves (İncirlioğlu, 1993). Urbanization offers several opportunities for females to attain prosperity in several aspects; better access to education, health and livelihood, highly-paid employment opportunities, access to credit or coaching for competitive skills (Chant, 2013; Gillani, Shafig, & Ahmad, 2019; Hasan, 2020).

In the case of Pakistan, female constitutes more than 48 percent of the total population. However, the female crude participation rate in the case of Pakistan is 21.68 percent (Pakistan Bureau of Statistics, 2018). The unemployment rate for females (8.5 percent) is significantly higher than the male counterpart (4.9 percent) and mostly females (70.7 percent) are employed in the informal sector and are underpaid (PBS, 2018). According to Pakistan Social and Living Standards Measurement Survey (PSLM, 2019), "only half of women and girls aged 10 or older in

Pakistan have ever attended school". This gap in women's education is primarily responsible for the subsidiary condition of women and hence handicapped this gender in making progress in a third world country like Pakistan. Moreover, it has been estimated that 65 percent of females are underpaid family helpers. Besides, the conditions of the services are not very encouraging either.

The currents study aims to estimate that how education and urbanization can contribute towards women's empowerment in Pakistan. The study has been divided into the following sections; section 2 comprises relevant literature, section 3 deals with the model specification and data sources, section 4 consists of econometric methodology and discussion of results and the final part, section 5 concludes the study with relevant policy implication.

2. Review of Literature

2.1. Education and Women Empowerment

Education serves as a key component in the process of development and women's education ensures the development process continues for centuries. Education helps to improve their knowledge, power, self-confidence and opportunity to work side by side with men. In developing countries like Pakistan, women are deprived of basic human rights like education and health (Ahmad, Bashir, & Hussain, 2018). Due to this reason, on one hand, the mortality rate in women keeps rising every year and on the other hand, the fertility rate is falling. The following section of the study comprehends the literature related to women's empowerment with a special focus on education.

According to Herz, Herz, and Sperling (2004), higher education among women is the mediator between the economic and social welfare of society. Contrary to it, the enrolment rate in higher education remained low in Pakistan throughout history as compared to the enrolment rate in other countries of the region like India (Pakistan Economic Survey, 2015). A major reason could be inadequate spending on education. Faridi, Chaudhry, and Anwar (2009) concluded that the education level of males and females positively affect the decision of females to work. They also found that female education, more than the primary level, was more likely associated with female participation in the labor force. Contreras and Plaza (2010) also found a positive and significant relationship between higher education and female participation in economic activities.

Malik and Courtney (2011) have investigated the role of education in empowering women in Pakistan. The study has used survey-based primary data set in which key questions were asked from female faculty members and female students from selected universities in Pakistan. For additional information, interviews of both faculty members and students were also conducted. Based on the responses, the study determined that family standing and financial security were the key benefits associated with higher education. Also, a higher level of education creates more awareness of rights and gender equality among women. Bibi and Afzal (2012) argued that the positive behavior of husbands and level of education encourages females to struggle for a job.

Sonowal (2013) has conducted a study on empowering women through education in Sonitpur (a district of Assam). The study focuses on the impact of educating women in rural areas in the context of family attitudes towards female education, gender inequality and social norms. The study concludes that education discrimination due to gender leads to the leapfrogged crowd of women in every aspect; social, political and economic. Further, it also caused general unawareness of women, insensitivity towards health issues, poor market skills and lack of general well-being. The study proposes that limited access to education and inadequate spending on education in rural areas has created differences between the women of urban and rural areas. On the contrary, women empowered through education can bring welfare and prosperity to their families in terms of family well-being and can bring development to the economy in financial terms.

McCracken, Unterhalter, Márquez, and Chełstowska (2015) conducted a study to explore women's empowerment through education. The study also focuses on the possible risks and opportunities involved during the empowering process. Also, the common components of society like gender discrimination, poverty, organizational culture and family size have been analyzed to explore their effect on the distribution of educational resources. The study suggested that a just distribution of education across gender leads to minimizing gender discrimination in the job market, poverty levels and gender-conscious organizational practices. Further, empowerment through education also helps women to earn self-confidence and self-empowerment. Kar and Somani (2015) studied that urbanization increases the education level which leads to women empowerment and self-sufficiency.

Abrar-ul-haq, Jali, and Islam (2017) has conducted primary data analysis for selected rural areas of Southern Punjab in Pakistan to check for the relationship of education and empowerment of women in rural areas. The study suggests that education is one of the key determinants for women's empowerment. Other factors like the status of women and the role of women in decision-making are also affecting women's empowerment in rural Punjab.

Batool (2018) analyzed determinants of women empowerment in the largest province of Pakistan, Punjab. The study collected primary data from 500 women across the province. Empirical results of the study support the hypothesis that female education significantly and positively contributes towards women's empowerment by inducing financial independence and high self-esteem.

Women empowerment can be accomplished by giving complete autonomy to women in both social and financial terms. According to Banerjee, Alok, and George (2020), empowering women by providing them adequate education and health opportunities brings about a positive impact on the economic growth of a country. This impact is more significant in developing countries than in developed nations. The study further concludes that an educated female with complete knowledge of her legal and political rights, financial independence, property in her name, social freedom with elated self-esteem can bring about enormous growth trends in developing countries.

2.2. Urbanization and Women Empowerment

Erman, Kalaycioğlu, and Rittersberger-Tiliç (2002) explored the case of Turkey for earning activities of the migrant women and their empowerment through money-earning activities. The study presented numerous case studies of women in turkey who have migrated to cities from rural areas and are involved in paid activities outside their homes. Further, it analyzed the social, cultural and religious norms with the conduct of women working outside their homes very extensively. The study concludes that according to the practical experiences of migrated working women, they are empowered due to financial autonomy and by giving a hand to their husbands in domestic expenses without disregarding them.

As the concept of women empowerment is multi-dimensional, one of these facets is the female labor force participation rate. Aboohamidi and Chidmi (2013) have analyzed to explore the common determinants of female labor force participation rate in Pakistan, Morocco, Turkey and Egypt. The labor market of these countries shares some mutual features. The study involves variables like fertility rate, literacy rate, GDP per capita, urbanization and openness. The study has used Pooled data analysis to seek the impacts of the mentioned variables on the participation rate of the female labor force. The study suggested that GDP per capita and the fertility rate have affected the rate of female labor force participation negatively where urbanization and literacy rate are positively contributing towards it. Where openness remained insensitive to the female labor force participation rate.

Subaiya and Vanneman (2016) have conducted a study to explore the relationship between women's empowerment and development by observing women's decision-making and mobility in the Indian economy. The study has considered both the women of rural and urban areas and has used both time series and panel analysis. Their study concludes that gender and

economic development are co-related but complex due to their multidimensional nature. Also, the study finds that both decision-making and mobility decisions contribute to women's empowerment as well as in development. Further, urban women are more empowered than rural ones as they have freedom of act and freedom of mobility. The reasons could be the difference in the level of education, social norms, the family set up and the difference of opportunities. The study also explored that freedom of movement in women tends to increase their self-confidence and acquire more opportunities. Consequently, society has empowered women in urban culture.

Cinar and Ugur-Cinar (2018) examined the impact of urbanization on woman empowerment in Turkey. The study employed multiple indicators of urbanization including political, educational and economic and empirically tested for the provinces of Turkey. Empirical estimates stated that urbanization positively empowers women yet there is a need for collective action at the societal as well as political level for complete social integration of women.

Women empowerment does not only entitle women only but the society as a whole spring up with the benefits associated with empowering women. Global women's empowerment through urbanization has been empirically tested by Cınar (2019). The study took the extensive data of 169 economies for the 1960 to 2014 period and empirically tested the impact of urbanization on empowering females. This global analysis has employed multiple indicators of urbanization like educational, political and social indicators that empower women. Empirical findings of the study suggest that urbanization has strong positive effects on women's empowerment. Amongst all, the strongest role in empowering females across the globe is education.

According to the recommendations of UNESCO, spending on education must be at least 4 percent of GDP in developing countries. But in Pakistan, only 2.6 percent of GDP has been spent on education in 2015 (World Bank, 2016) which further falls to 1.5 percent only in 2020 (Pakistan Bureau of Statistics, 2020). On contrary, urbanization in Pakistan is growing by each day. According to UNDP (2019), Pakistan has the highest rate of urban movement in South Asia. One of the main reasons for high urbanization is access to better education and employment opportunities (Abdul & Yu, 2020). Collectively, educated and urbanized women can be socially, economically and politically more independent and empowered in general. A close probe into literature shows that women's empowerment in Pakistan has not been examined in this regard. Further, as women empowerment is a multifaceted approach, a single variable cannot measure its impact. To bridge this gap, the current study has constructed a composite women empowerment index (WEI) and aims to investigate its relationship with education and urbanization in Pakistan.

3. Theoretical framework, Model Specification and Data Sources

Hur (2006) described how the theory of empowerment is related to education. The study suggests that the role of education in empowering individuals is unleashing the abilities of individuals; the ability to recognize their worth and capabilities along with the backup of a set of skills and knowledge. But education is not the single element in empowering theory. It includes every strategy and strength that constructs a competitive and proactive individual (Joseph, 2020). Sharma (2007) discussed the components of women's empowerment like the involvement of women in decision-making seeking their worth, the status of a woman in the house and autonomy for the choice at their homes. However, women's empowerment is a continuous process (Chant, 2013). Developing economies can use the strategy of empowering women to achieve sustainable development because it ensures the utter participation of females actualizing equality and access to the power which are the basis for economic development (Hazel & Sally, 2000). Considering the theoretical links, Collectively, educated and urbanized women can be socially, economically and politically more independent and empowered in general. The study employed an augmented version of the model proposed by Banerjee et al. (2020). The economic literature shows that there are very few studies on women empowerment that are empirically testing for various determinants. However, there is a large number of theoretical discussions available like; (Burnet, 2011; Charrad, 2009; Cinar & Ugur-Cinar, 2018; Sheoran, 2016) but very few empirical investigations have been conducted. Further, the available empirical investigations are using qualitative data which is not a statistical representation and can be misleading. Therefore, our study opts for annual time series data. As the concept of women empowerment is multi-layered (Cinar & Ugur-Cinar, 2018; Hashemi, Schuler, & Riley, 1996), using a single variable as a proxy measure would be unjustified. Following the lines of Roy, Chatterjee, and Dutta Gupta (2018), we have constructed WEI by using multiple women-related indicators for an in-depth analysis. We include 3 domains; health domain, knowledge domain and employment domain as a measure of women empowerment. These domains include female health measured through life expectancy of females, female education attainment measured by higher education enrolment of females and female workforce participation through the proportion of females in jobs. Principal Component Analysis (PCA) method has been used for the construction of WEI. PCA allows comprehending the various indicators into a single series without losing information. Moreover, this method is also employed to remove the unit bias.

The data for the years 1980 to 2019 of concerned variables is used in this study. World Development Indicators (WDI-2020) online database is a major source of data collection. Education, urbanization, households' consumption, domestic credit and inflation are used as explanatory variables. The functional form of the model follows:

$$WEI = f(EDU, URP, HHC, INF, CREDT)$$
(1)

This model can be converted into econometric form as follows:

$$LWEI_t = \beta_0 + \beta_1 LEDU_t + \beta_2 UPG_t + \beta_3 LHHC_t + \beta_4 INF_t + \beta_5 CREDT_t + \varepsilon_t$$
 (2)

The proxies for the variables are specified as below:

LWEI_t =Log of Women Empowerment Index

LEDU_t =Log of Education (Enrolment in secondary school both male and female)
UPG_t =Urban Population (Annual growth rate of the urban population in percent)

INF_t =Inflation rate in percent (CPI-based)

LHHC_t =Log of Consumption (Household consumption per capita)

 $CREDT_t$ = Credit (Domestic credit provided to the private sector as %age of GDP)

 β_0 = The constant or the intercept.

 β_1 β_5 = The coefficients of independent variables. ε_t = Error Term and t represent the time.

The study expects the positive impact of all independent variables on women empowerment except inflation. Inflation is expected to decelerate the process of women's empowerment.

4. Empirical Results Discussion

4.1. Unit Root Testing

We have utilized the Augmented Dickey-Fuller (ADF) test to determine the integration order of the data series used in this paper. The following table contains the results of this test.

As ADF test statistics are insignificant at level, Table-1 indicates the presence of unit root in data. But ADF test statistics of all first differenced variables are significant at a 5% level. Thus the integration order of all variables is determined as one I(1). Therefore, Johansen's cointegration is a suitable econometric methodology for the investigation of the long-run relationship.

Table 1
Statistics of Augmented Dickey-Fuller Test

	At L	evel			
Variables	Const	Constant		With Trend	
variables	Statistics	Probability	Statistics	Probability	
LWEI _t	-0.966282	0.7540	-2.302326	0.4215	
$LEDU_t$	-1.074270	0.7141	-2.630425	0.2702	
UPG _t	-1.120089	0.6956	0.335602	0.9980	
LHHC _t	-0.245787	0.9228	-2.803045	0.2068	
INF _t	-2.561042	0.1117	-2.501513	0.3252	
CREDIT _t	-0.857581	0.7893	-1.532061	0.7983	
	(At 1st Difference)				
$\Delta LWEI_t$	-7.217647*	0.0000	-7.016607*	0.0000	
$\Delta LEDU_t$	-3.203491**	0.0290	-4.082749**	0.0164	
ΔUPG_t	-3.378397**	0.0191	-3.388084	0.0703	
$\Delta LHHC_t$	-6.767637*	0.0000	-6.694119*	0.0000	
ΔINF_t	-7.010462*	0.0000	-6.907888*	0.0000	
$\Delta CREDIT_t$	-4.785947*	0.0005	-4.922762*	0.0019	

^{* ,**}indicate the level significance, respectively 1%. and 5%

4.2. Co-Integration Analysis

The results of the Johannsen's co-integration procedure are demonstrated in table-2. Maximum Eigen statistics, as well as Trace statistics, endorse the presence of co-integration. Trace statistics confirm the presence of four co-integrating vectors. The null hypothesis of no co-integration is also rejected based on Maximum Eigen statistics. Five co-integrating vectors are found based on Maximum Eigen statistics.

Table 2
Co-integration Test Results

Hypnotized No. of CEs	Statistics	Critical Values	P-values.**
	Trace	Statistics	
None*	240.290	95.754	0.000
At most 1*	140.170	69.819	0.000
At most 2*	65.799	47.856	0.001
At most 3*	36.724	29.797	0.007
At most 4	13.821	15.495	0.088
At most 5	0.049	3.841	0.824
	Max-Eige	en Statistics	
None*	100.120	40.078	0.000
At most 1*	74.371	33.877	0.000
At most 2*	29.075	27.584	0.032
At most 3*	22.903	21.132	0.028
At most 4*	13.772	14.265	0.060
At most 5	0.049	3.841	0.824

^{**}MacKinnon-Haug-Michelis (1999) * denotes a 5 % level for hypothesis rejection.

Table 3
Long Run Normalized Coefficients

Long Run Normanzea coemicients					
Dependent Variable = WEI _t					
Independent Variable Coefficient Standard Errors t-statistics					
LEDU _t	20.3896	5.60531	3.63754		
UPG _t	12.8484	1.82614	7.03585		
LHHC _t	36.4862	5.29107	6.89581		
INFt	-0.464012	-0.13589	-3.414615		
CREDIT _t	2.48911	0.15927	15.6282		

After confirming the long-run relationship among women empowerment index, education, urbanization, household consumption, and inflation and credit facilities, long-run coefficients of the normalized vector are shown in the following Table-3.

Empirical results show that education has shown a positive and significant effect on women's empowerment because education helps to improve knowledge, self-confidence. Education also minimizes gender discrimination. The positive and significant impact of education on women's empowerment is in line with the results of previous studies for example, (Batool, 2018; Kar & Somani, 2015; McCracken et al., 2015; Sonowal, 2013). Like earlier studies of Erman et al. (2002), Urbanization has shown a strong, positive and significant impact on women empowerment in Pakistan. Cinar and Ugur-Cinar (2018) and Cinar (2019) found the same strong relationship between urbanization and women empowerment for Turkey and other countries respectively. Household consumption and credit to the private sector have also shown a positive impact on women's empowerment. It is justifiable because household consumption and credit to the private sector may increase the employment opportunities for women, therefore, they feel more empowered (Kabeer, 2001; Pitt et al., 2006). Inflation revealed a negative effect on women's empowerment because in an inflationary situation education opportunities and health services for women might be compromised.

4.3. Short Run Relationships

Vector Error Correction Mechanism (VECM) is utilized to determine the short-run relationship between women empowerment, education and urbanization. The results of the VECM analysis are displayed in Table-4.

The coefficient of the lag of Error Correction Term (ECTt-1) is negative and statistically significant. Negative sign reconfirms convergence towards equilibrium and long-run relationships. In the short run, most of the variables are insignificant for women's empowerment. Only the first lag of the women empowerment index and the first and second lag of urbanization showed a negative and significant impact on women's empowerment in Pakistan. However, the long-run relevance of variables has been confirmed through ECT term.

Table 4
Short-Run Dynamics (Dependent Variable = ΔWEI_t)

Independent Variable	Coefficient	t-Stat	Probabilities
Intercept	0.596157	1.251872	0.2266
Δ LWEI _{-t-1}	-0.177882	-0.765393	0.4540
Δ LWEI _{-t-2}	-0.543980	-2.218315	0.0396
$\Delta LEDU_{t-1}$	-5.200013	-1.226260	0.2359
$\Delta LEDU_{t-2}$	-1.732440	-0.373662	0.7130
ΔUPG_{t-1}	-13.79666	-2.337135	0.0312
ΔUPG_{t-2}	-10.03070	-2.056633	0.0545
ΔLHHC _{t-1}	3.935003	0.702503	0.4914
ΔLHHC _{t-2}	-1.842317	-0.336506	0.7404
ΔINF_{t-1}	-0.006232	-0.099476	0.9219
ΔINF_{t-2}	0.031496	0.483606	0.6345
ΔCREDIT _{t-1}	-0.063676	-0.522463	0.6077
ΔCREDIT _{t-2}	-0.186648	-1.739895	0.0989
ECT _{t-1}	-0.118528	-2.964057	0.0083
$R^2 = 0.432993$			
Durbin-Watson = 2.09			

4.4. Diagnostic Tests

Some important diagnostic tests have been applied to our model. The results of diagnostic tests are displayed in Table-5. According to these results, our model is free from the problems of heteroscedasticity and autocorrelation. Also, residuals are normally distributed as per Jarque-Bera statistics.

Table 5
Diagnostic Tests Results

Test Name	F-Statistics	Probability
Heteroscedasticity	ARCH Test=2.172526	0.1334
Heteroscedasticity	Breusch-PaganGodfrey=1.190642	0.3806
Serial Correlation	Breush-Godfrey LM=1.402924	0.2745
Normality Test	Jarque-Bera Statistics=0.425036	0.8085

5. Conclusion and Policy Implications

The study employs time series annual data for Pakistan to check the impact of education and urbanization on women's empowerment. We used a composite Women Empowerment Index (WEI) for our dependent variable. To determine the order of integration, the ADF unit root test has been utilized. All the variables are first differenced stationary. Johansson's co-integration methodology is applied to investigate the relationship between variables in the long run. Longrun coefficients show that education and urbanization positively and significantly affecting women's empowerment. The lag of error term is negative and statistically significant in the short run, which confirms the existence of a long-run relationship and convergence towards the longrun equilibrium. Following the findings of this study, it is suggested that the government should reframe educational policy to provide equal educational facilities for men and women with a special focus on backward regions of the country where women are less empowered due to a lack of education facilities. Urbanization provides greater social, economic and political opportunities for women. Same opportunities should be provided for women in rural areas to make them more empowered. Moreover, control of inflation and the provision of credit on easy terms will help to enhance women's contribution to economic activity and hence empowering the females in Pakistan.

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