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Nexus between Female Empowerment and Entrepreneurship: An Empirical Analysis for Pakistan

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Abstract

The purpose of this paper is to explore the association between Female Empowerment and Entrepreneurship in a society where women face strict societal norms. Female Empowerment raises resources/income, and confidence which is an important element for entrepreneurship. The earlier studies explored the links between empowerment and labor-force participation, but not found the linkages between empowerment and entrepreneurship. Further, the relationship between female empowerment and female entrepreneurship has not been explored after taking into account the bidirectional causality present between the two. The issue of endogeneity and censoring are comprehensively addressed here which were not addressed in earlier research. Findings show by developing an empowerment index females have the decision-making power in household decisions related to purchasing of food, cloth, health-related issues, and child education. Results further conclude that female entrepreneurship enhances empowerment by giving financial security to females. The study has employed cross-sectional data of PSLM/HIES for the period (2018-2019) and developed an Index through Principal Component Analysis (PCA) while for the assessment of the association between Female Empowerment and Entrepreneurship study has estimated two-steps IV-Tobit Model.

Keywords:

Entrepreneurship, Employment, Informal Labour markets, wellbeing

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Introduction

The majority of female in Pakistan belongs to middle-income families and their participation in the labor market remain lowest as compared to men. As women mainly devote an extensive amount of time to housework that reduce their chance of entry into school, labor market, and other activities outside the house. Economic participation is one of the elements that enhance women's status by providing empowerment especially through entrepreneurship that leads to financial independence (Benntte, 2002; Mishra, 2013; and Karimim, 2018). However, in a male-dominated society gender gap creates hurdles in generating employment for females though women have the same potential as men and can contribute to wealth creation and employment by starting and developing their businesses. (Marlow, 2002; Sexton and Kent, 1981; Mantok, 2016; Hou, 2011; Sohail, 2014; and Duflo, 2011). The main objective of the study is to seek the answer to an important question; Is their potential to develop a business helpful in creating wealth? Is this enhances their status in society, the result of which is empowerment – breaking of the strong patriarchal system?

Without any doubt, empowerment raises resources, income, and confidence – an important element for entrepreneurship as well as a concept that provides inter-linkages between gender equality and equity which in turn has a strong connection with the structural transformation of society (GEP 2011)[1]. Given the context, the Global Entrepreneurship Monitoring (GEM, 2016-17) report shed light on women's business statistics. According to the report, about 274 million women around the world are successfully running their businesses in 74 economies. However, the situation is very different in developed countries as compared to developing countries (Daymard, 2015; Naqvi; 2002; Tripathi, 2017; and Sadania, 2016). In the developing world, in countries like Pakistan, India, and Bangladesh, women face strict social, cultural, and traditional norms with a patriarchal system that manifests the lower status of women. Specifically, for Pakistan according to the Labor-Force Survey (LFS, 2017-18), females' self-employment contribution in urban areas is only 1.68 percent, even less than its rural areas, which is 2.42 percent. Higher representation of females in self-employment is more noticeable in the informal sector that lacks legal requirements, has no age restrictions, and provides independence from time constraints.

Further, females mainly work in the informal sector where no minimum wage law is applied, and where part-time and contract work with long working hours hold. Therefore, most females, running their own home businesses are neither visible nor recognized formally, in society again undermining their social status in

[1]Gender Equity Program (GEP), Aurat Foundation, Pakistan, funded by USAID.

society. Raising the question again; Is their work has a significant effect on their empowerment?

However, the paper seeks to answer an important question but the answer is limited to the females who are self-employed and involved in establishing and running household enterprises. Specifically, there are two main objectives of the paper: The first objective is concerned with the assessment of Female Empowerment by developing an index, using Principal Component Analysis (PCA). Secondly, the study assesses the relationship between Empowerment and Entrepreneurship after controlling for endogeneity and censoring. As this is evident from the literature that entrepreneurship, self-employment and even being employed give direction to females to move towards self-reliance and enhance decision-making power. The bi-direction causal relationship between the two, resulting in the failure of zero conditional mean assumption (possible presence of endogeneity), hence cannot be ignored.

The estimation explores the impact of ownership of enterprises on women's empowerment that have failed to account for this endogeneity the results hence, are biased and inconsistent. To deal with the endogeneity issue, the study employed an instrumental variable approach. As far as censoring is concerned, nine dimensions (decisions) used to characterize women's empowerment by employing the Principal Component Score. Due to the constraint of data, females between the ages of 15-49 years[2] have left behind generating the issue of sample selection biases. The principal component retrieved thus includes a large number of zeros that may show censoring around zero. This led to a censoring issue in the data as well. To overcome the problem the study made use of the Tobit model corrected for endogeneity – instrumental variable Tobit approach.

Scope of Research

The purpose of this paper is to explore the assessment of decision-making power of Female Entrepreneurs and examine the association between Female Empowerment and Entrepreneurship in societies where women face strict societal norms.

Rationale of Research

Income generation through female own enterprises empowers female on the household level; reduce the vicious circle of poverty and build the confidence and strong motivations not only herself but for entire wellbeing of the society.

[2] Though, the PSLM data employed here, provide comprehensive information on female decision making power but data is limited to provide information on females age between 15 to 49 years. Hence, this study is also limited to assess the issue for a segment of female population.

Research Problem

Strict social and cultural norms confined women, connectivity of (empowerment by the entrepreneur) provides the solution inform of employment income and further development for the economy.

Objective of Research

- First to find out the relationship among women empowerment and entrepreneurship.

- Second to develop an empowerment index by PCA(Principal component index) to explore the women decision making power.

Theoretical / Conceptual Framework

Under the conceptual frame work developed by Mayoux (1998) has been modified to the objective of the study. Three well-defined heads are discussed here as, feminist empowerment pattern, poverty alleviation pattern, and financial sustainability pattern. Empowerment in this paradigm is conceived as a multidimensional process involves challenging existing power relationships and inequalities at different interlinked levels. Micro-finance for income generation is promoted by Mayoux, as an entry point in the context of a wider strategy for women's economic and socio-political empowerment, which focuses on gender awareness and feminist organization. While the poverty alleviation pattern gathered poverty-targeted community development programs. These programs are based on principles of 'self-help' to build sustainable livelihoods and sustainable communities. The financial self-sustainability pattern is often referred to as the sustainability approach. The ultimate aim of empowerment is the expansion of individual choice or capacity for self-reliance.

Significance of Research

There is a need that females should participate in labour market to manage their financial and social constraints. Unemployment and poverty enforce females to increase their economic participation. Females in Pakistan are now seen actively participating in economic activities to get recognition of their abilities and to generate employment opportunities and income. Among the females participating in labour market, a large number is in self-employment running their own business, not only generating income for themselves but has also become a source of employment generation.

Limitation of Research

The data is limited to provide information on females' age between 15 to 49 years only. As this dataset provides comprehensive information, though with limitation, the study is based on PSLM data for extracting empowerment index. The existence of endogeneity problem, asset and female own income variables are not included in the study.

Literature Review

In Pakistan decision, making power of women at home and in the society is hard to assess, due to cultural and social values. Poverty, unemployment and unexpected conditions (like divorce, dispute between husband/wife, rare diseases, financial loss), enforce women to enter the labor-force. Generally, unskilled and less educated females find jobs in the informal sector.

Research studies have revealed that the rate of female entrepreneurs accounted more in developed countries in contrast to developing countries, due to high socio-economic barriers in developing countries. However through business ownership and business creation women avails economic empowerment [(Marlow, 2002; Sexton and Kent, 1981)].

Empowerment of women differs from country to country, among communities and societies; and social norms, contextual realities and opportunity of resources vary from place to place. Creation of business and ownership that makes women stronger and confidence through power of decision-making called the empowerment as discussed by [Mishra, (2013) and Karimim (2018)].

The perception of women entrepreneurs is to make profit creation, improve social status and generate bargaining power of women. [Mantok (2016)] concluded to explore the link between women entrepreneurs and empowerment for Gujarat, India. The results revealed that positive and significant association found between women entrepreneurship and empowerment. Knowledge, education, availability of resources and employment.

Generally, gender gap exist in developing countries as proportion of women is less in business activities even in the same business, their profitability is low explored by [Minniti, (2009)]. Well educated women proceeds better business that brings more earning potential and their success as entrepreneurs. The education influence positively and significantly on self-employment supported by [Hou (2011), Sohail (2014) and Duflo (2011)].

Nasir (2019) illustrated the importance of entrepreneurship for the countries growth; significant role of socioeconomic variables affects the growth of female entrepreneur in Pakistan. Findings reveals that socio cultural factor that is age education, health, personal factor as well as financial factor significantly affect the entrepreneurship growth. Male dominancy and perception of people to do the job shows same 20% for both social variables. Meanwhile financial factor existence brings the change in family support on 67% while lack of finance comes on 33% approximately.

Fafalia (2014)] assessed the indicators that bring success or failure of female as entrepreneurs for Greece. The results show that young female are highly educated and often belongs to business background. Female in the age group of 25 to 44 years are generally associated with service sector (68%). Majority of females regret that they are not spending their time with their families.

Parmar (2017)] studied the performance of women entrepreneurs in Sindh province of Pakistan. He covered six districts of Sindh. female entrepreneurs in rural faced constraints such as financial, marketing, cultural and technological constraints. The multivariate analysis finds that financial constraints in all districts showed strong impact on performance of women entrepreneurs.

Vadnjal (2013)] identified that woman perform on multi-tasking environment with dual responsibility, moral support of husband facilitates as a cushion for their work life balance. Finding showed that moral or emotional support of husband's gave her confidence to own decision at the initial level of entrepreneur. Different factors elaborated such as motivational factors to start the new business, indicate 72.7% females were those who were independent in their work and had husband's support.

Daymard (2015)] agreed that generally women entrepreneurs in developing countries work in the traditional sectors, especially in manufacturing, wearing apparel, trade and retail, education, health, beauty parlors and boutiques businesses. the study also explores the impact of these factors on their performance. The recent trend of female options for their family financial support shows that most of them are engaged in service and manufacturing sectors. The regression results indicate that an average increase of 10% in women education will boost women entrepreneurship to about 18%.

Obayelu (2020) examined the drivers and dimensions related to women empowerment in Nigeria where mostly rural women founded in vulnerable condition of poverty. Finding of the result explained that women enforced by their spouse in most of family decision. Majority of women w ere disempowered from their basic rights as compared to men. Significant and positive contribution

observed for women empowerment by the factors like education, head of the household and household size.

Karki et al.(2018)] analyzed the formalization of women entrepreneurial activity in informal sector and try to explored the SDGs goal regards to gender equality and empowerment support in Kathmandu, Nepal. Finding of the result showed that in informal sector women easily handle and continue their work without regularization. However, the documentation and legal regularization in formal sector loses her confidence and movement in the society.

Research Methodology

As stated above the present paper explores the endogenous relationship between women's empowerment and entrepreneurship in Pakistan using the two-step Tobit approach (IV-Tobit) of which the first step is Probit given the dichotomous nature of the dependent variable – female if own and operates enterprise equal 1 otherwise zero. The assessment is done, using decision-making Indicators highlighted in the PSLM/HIES (2018-2019), such as who decides about education, seeking paid employment, marriage, family planning, purchasing food and clothing, taking medical treatment, and recreation and travel decisions, etc.

Based on the empowerment and entrepreneurship theories and empirical evidence reported in the literature, the study hypothesizes that female decision to own and operate an enterprise will increase their decision-making power hence empowerment. The empirical relationship between empowerment, ownership of enterprise, and other determinants of empowerment is tested using the following simple model:

$$Emp_i = \beta_0 + +\beta_1 \sum_{j=1}^{3} PERCH_{ij} + \beta_2 \sum_{l=1}^{3} HUSB_{il} + \beta_3 \sum_{s=1}^{5} HOUS_{is} + \beta_4 \sum_{m=1}^{2} HEAD_{im} + \beta_5 POV_i + \beta_6 REG_i + \beta_7 \widehat{fement}_i + \varepsilon_i \dots\dots\dots\dots\dots (1)$$

The above-stated model is estimated after correcting for endogeneity and censoring in the data. Female Empowerment and Female entrepreneurial activity are interrelated – strong reverse causality is present between the two, i.e. more empowered women are more likely to own and operate an enterprise (Roushdy and Namoro, 2007). Another study conducted by Basu, (2006) highlighted that income generates more power in decision-making among females.

Further, it is also evident from the literature that the restricted social and cultural norms restrain females' to take independent decisions thus limiting their empowerment and this societal behavior hinders women's involvement in entrepreneurial activity as well. As far as censoring is concerned, nine dimensions

(decisions) are used to characterize women's empowerment by employing the Principal Component Score. As the data is limited to females between the ages, of 15-49 a large number of females are left behind generating the issue of sample selection biases. To handle the endogeneity and to overcome the problem of censoring use of the Tobit model corrected for endogeneity – instrumental variable Tobit approach (IV-Tobit) Tobit two-step regression method is applied, for which the first step is Probit. To resolve the problem of endogeneity, $\boldsymbol{Z}_i$ in the model is included representing instrumental variables, used to predict $\widehat{fement}$. The Wald test of exogeneity confirms the presence of endogeneity [chi2 test statistics = 20.97 with prob. 0.000 see Annex-A1]. The instruments used to predict the decision to own and operate a household enterprise run by females are: Ratio of Entrepreneur Income to Household Income in the house and Ratio of Female Wage to Male Wage in a house.

The vector of female personal characteristics (PERCH) such as age and years of education are hypothesized to have a positive relationship with female empowerment. The housing conditions (HOUS) indicators such as electricity, gas, toilet, and water availability are again hypothesized to have a positive association with female empowerment – the better the housing environment the better will be productivity. Congestion is included to show deteriorating housing conditions hence hypothesize to have a negative relationship. Husband characteristics (HUSB), such as age and education are hypothesized to be inversely related to female empowerment. An increase in husband age and education instead of bringing wisdom for change disempower females. The same is true for head characteristics (HEAD). Finally, regional and provincial dummies capturing cultural variation are also included in the model.

Research Hypothesis

H_1: Entrepreneurship positively and significantly enhance the Female Empowerment with well-being of society.

Analyses and Interpretations

The result section of this paper divided into two parts. The first part provides a descriptive assessment of empowerment indicators while the second part makes an empirical assessment of the relationship between empowerment and entrepreneurship. Further, both parts are divided into two parts. The descriptive assessment of empowerment not only deeply assesses the indicators of empowerment but also explores the empowerment index developed based on the indicators. Further, the first section of the empirical part discusses the results of the first stage probit model while the second part elaborates the linkages between empowerment and entrepreneurship after controlling for endogeneity and censoring.

Descriptive Assessment:

The fifth goal of SDG (Sustainable Development Goals) addresses gender equality, which highlights the importance of female rights. These are related to basic rights of education, employment, and other important life decisions. The below section presents a detailed assessment of decisions made within the household, controlling for regional and provincial variations. Further, as the principal component analysis (PCA) used to construct the female empowerment Index based on these decisions, the detailed assessment of these decisions is considered important. The index is formed using the following decisions and choices:

1. The decision related to Education
2. The decision related to Paid Employment/Seeking Work
3. The decision related to Purchasing Food items
4. The decision related to Purchasing Clothes
5. The decision related to Unpaid Employment/Family Labour
6. The decision regarding Medical Treatment.
7. The decision regarding Recreation and Travel activities
8. The decision regarding Family Planning
9. The decision about having Children

The reported answers in the PSLM thus combine to following actions:

1. Women herself decide
2. Head/Father with his/her Spouse decide
3. Head /Father with Women's consultation decide
4. Household members or others decide

Assessing Empowerment Indicators

The assessment of empowerment indicators is done by province and region because each province and region in Pakistan differ in terms of geographical typology and in terms of cultural and social norms.

Decision related to Education

Result shows that in rural areas only 9.4 percent of education decisions are taken by females, while 12.8 percent of decisions are taken by the head of the house. On the other hand, in urban areas, the situation differs as compared to rural areas shows in Table.1

Decision Related to Paid Employment/Seeking Work

In rural areas, mostly females' paid employment is related to the financial needs of a family. The percentage in urban areas is almost the same among the provinces, showing the same level of decision-making dependency of females given in Table.2

Decision related to Purchasing Food Items

Females in Pakistan are dependent on the family, head, or husband's decisions even for small purchases. Choice related to food selection is completely associated with females in households, results of this study show that only in the Punjab province (both rural and urban areas), females have complete authority over the decision related to purchasing food items shows Table.3

Decision related to Purchasing Clothes

Analysis of this study, regarding the decision about purchasing clothes highlighted that only in the Punjab province; females are independent to make their own choice, 64.4 percent of females in rural and 47.6 percent of females in urban areas making their own decision given in Table.4

The Decision about Recreation and Travel Activity

The analysis shows that Punjab, once again shows the highest percentage in decision making (around 72.8 percent of females in rural and 70 percent of females in urban areas are taken independent decisions) shows in Table.5

The Decision Regarding Medical Treatment

Females in this category are dependent on their parents, in-laws, or their husbands, except in rural Punjab; where a good percentage about 71.6 percent take their own decision regarding medical and health-related issues presents Table.6

The Decision Regarding Un-Paid Employment/Family Labour

Females in urban Punjab (around 35.8 percent) do not want to work outside their house. On the other hand, only 11.6 and 22.9 percent in rural and urban Sindh respectively, replied to this question given in Table.7

The Decision Regarding Family Planning

The finding of the result shows that in rural Punjab mostly joint decisions that are [the highest expressed (51.1 percent)] taken by the families while in urban Punjab husbands decide only (49 percent) presents by Table.8

The Decision about having Children

In Sindh province, the ratio of females taking their own decisions is about 20.3 percent in rural areas and 29.6 percent in urban areas. The same decision when taken jointly (husband and wife) is18.9 percent in rural areas and 27.6 percent in urban areas. Results show that only 18.8 and 15.1percent of females decide themselves for having children in Balochistan express by the Table.9

Principal Component Analysis (PCA)

As said, earlier to develop an index of empowerment study has applied Principle Component analysis. The result has extracted the three most suitable components as indicated in Table.10 (only those values that have eigenvalue 1 and above, are considered here. The first components explain 49.6 percent of the total variance (see a cumulative percentage) while, the second components capture 68.1 percent variance, and the third component explains 80.5 percent variation. Meanwhile, to know the adequacy of the result, the study used the two tests; firstly Kaiser Meyer-Olkin and Bartlett's test of Sampling measure (0.82) indicating good adequate results secondly Bartlett's (Sphericity test) Chi2 test is also found significant see Annex-2 and Annex-3.

Empirical Results and Discussion:

For the impact assessment of female entrepreneurship on empowerment, considering female personnel, her spouse, and household characteristics with additional control over the presence of endogeneity and censoring in the data, this study has employed IV-Tobit estimation (for which the first step is presented here) as said early. The results of the Two-Step IV-Tobit estimation explains below.

In the first step dependent (fement, dichotomous) variable is a dummy variable, that represents the presence of female-headed enterprises in the household equals 1, otherwise 0. Independent variables here consist of: a set of Instrumental variables (i.e. ratio of entrepreneur income to household income, and the ratio of female wage to male wage), Personal characteristics Household characteristics, Husband characteristics, and Head of the Household characteristics Few other variables included in the model are dependency ratio, province, and regional dummies.

The proposed IV-Tobit estimation for the study hence consists of two steps. In the first step Probit regression helps to remove the endogeneity problem by using the Instrumental variables approach; while in the second step, the residuals from the first step are added to the Tobit Model to explore its effect on empowerment.

First Stage Regression Estimates – Female Own & operate Enterprise

In the first step, the coefficient of instrument variables shows the significant impact of instruments selected. The empirical assessment shows that the probability of female entrepreneurship increased with the increase in the ratio of enterprise income to total household income. In terms of marginal effect; a one-unit change in the ratio of enterprise income to total household income increases the probability of enterprise ownership by 0.0002 points [in terms of coefficient (The probit coefficients give the change in the z-score for a one-unit change in the predictor), with a one-unit increase in this ratio, the z-score increases by 0.007]. The ratio of female wage to male wage also shows a positive significant effect. In terms of marginal effect; a one-unit change in the ratio of female to male earning increases the probability of enterprise ownership by 0.0013 points [in terms of coefficient, with a one-unit increase in the ratio of female to male wage, the z-score increases by 0.077] see in Table.11

Among the control variables, the personal characteristic of females, and age shows a significant non-linear relationship. The results show that a one-year change in age will increase the probability of operating an enterprise by 0.003 units [in terms of coefficient, with a one-unit increase in age, the z-score increases by 0.15]. As far as education is concerned, years of education does not provide significant result in this case. As far as their spouse's age and education are concerned his education does not show any significant impact which may be because of restricted social norms. However, as far as spouse age is concerned a one-unit change in the spouse age increases the probability of enterprise ownership by 0.0003 points [in terms of coefficient, with a one-unit increase in spouse age, the z-score increases by 0.014].

The same result is evident from the impact assessment of education of the head of the household, however, head age results differ. Further, a rise in income generates substantial financial benefits not only for herself but also for her family. A one-unit change in the head age decreases the probability of enterprise ownership by 0.0003 points [in terms of coefficient, with a one-unit increase in spouse age, the z-score increases by 0.02] as explained in Table.2. Housing conditions, availability of gas and electricity explain a significant positive relationship while congestion and increase in dependency ratio show significant but negative impact. Results show that as the availability of gas and electricity increases by one unit the probability of having enterprise increases by 0.002 and 0.007 points respectively. While, congestion in a house and dependency ratio, on average, both decreases the female decision to own and operate an enterprise significantly by -0.01 and 0.004 points respectively. Finally, provincial and regional dummies are used here to express the social and cultural impact on the female decision, all provincial dummies (Sindh, Punjab, and Balochistan) give a significant impact with negative signs justifying that social and cultural norms restrict females to move. In rural Sindh and Punjab rituals and cultural norms do not allow females to move freely. Urban females though are more confident as compared to rural areas.

The Second Stage Regression – Determinants of Empowerment

Estimation results for IV Tobit, the Second step are different from the first step as after removal of endogeneity problem, predicted values of female enterprise ownership are included as an explanatory variable to explain female empowerment - used as a dependent variable in second stage regression. The relationship of independent variables with female empowerment is explained in detail below:

Empirical assessment shows the positive linkages between Female Empowerment and female ownership of enterprises. On average, an increase in the probability of female ownership of enterprises, increase the female empowerment index by 1.37 points. While female personal characteristics like years of education give a positive and significant impact on empowerment - a one-unit increase in female education coefficient increase the empowerment by 0.02 points; while age and square of the age, exploring non-linearity in the variable, affect female empowerment insignificantly. Considering husband characteristics, only spouse age explains a significant relationship, a one-year increase in spouse age was found to be reducing empowerment by around 0.02 points. Contradictory to this household head age was found to have a significant positive impact on empowerment, as a one-year increase in age of the head was found to be increasing women empowerment by 0.02 points.

For household characteristics, all the indicators were found to have a significant impact on empowerment. Among that availability of Gas, electricity, and toilet facilities have a negative significant effect while congestion, dependency ratio, and piped water facility give a positive effect. Precisely having Gas, electricity, and toilet facilities will reduce the empowerment by 0.24, 0.23, and 0.14 points while an increase in congestion, dependency ratio, and having piped water facility increase the empowerment by 0.47, 0.36, and 0.15 points. Finally, among the provincial and regional dummies cultures of Punjab and Sindh found supportive for empowerment while prevailing norms in Balochistan restrict empowerment. Punjab province increases female empowerment by 0.23 units, whilst for Sindh residents on average empowerment will increase by 0.54 points. Regional dummy is concerned the effect of urban dummy found supportive for empowerment while for an urban resident empowerment increases by 0.09 points as shown in Table.12

Conclusion

Women empowerment is associated with the capability of females to control and make their own decisions regarding economic and social resources. This decision-making power can only be achieve with the help of employment, which is further associated with entrepreneurship. Pakistan is a labor-abundant country; gender inequality is an element, which deprives females to get their basic

rights. It is necessary to empower females to reduce this gender inequality; not even for themselves but also the well-being of society. The analysis shows that most of female self-employed belong to rural areas where they are significantly sharing the burden of their families with domestic responsibilities. The result also shows through an empowerment index, females have more decision-making power in household matters like (purchasing food, cloth, health-related issues, education of child regarding paid and unpaid employment and others). Punjab and Sindh provinces have a better decision-making power as compared to other provinces where strong social and cultural restrictions confined females to move ahead. Results further concludes female entrepreneurship enhance self-esteem, motivation, confidence by empowerment and provide financial security to stand her own feet.

Recommendations

According to the above findings, the following policy Implications have suggested;

1. Low female labor-force participation reflects the low engagement of females towards economic development as compared to other regional countries. There is a need to encourage women's economic participation; not only to raise their standard of living but also to improve economic development. The government should provide equal rights without discrimination, to empower women.
2. Educational and professional skills give the women choices for a bright career; there is a need to groom them. Internship programs should made to educate women.
3. Household enterprises present in informal sector remained the major source of employment and income generation, government could facilitates the household in terms Low charges or less unit charges levied on electricity bills
4. Although empowered female have their own position in the society but she also need to have strong motivation, courage, confidence, encouragement and appreciation that will come only through the support of family members.
5. For economic empowerment, economic participation is must for female to recognize their abilities. Sound social and cultural norms with strong patriarchal system produce imbalance in the system and restricts the economic participation of the female. Therefore, the need is to change the mindset of husband /father and other male household members that allow women to participate in economic activities.

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Table .1 Decision Related to Education

Region	Province	Household members & Others	Head/ Father with Spouse	Head/ Father with Women Concerned	Women herself	Total
Rural	**KPK**	223 (20.0)	4177 (27.0)	382 (18.9)	387 (7.9)	5169 (22.0)
	Punjab	622 (55.7)	6350 (41.0)	1081 (53.5)	2741 (56.2)	10794 (45.9)
	Sindh	216 (19.3)	2981 (19.2)	458 (22.7)	1294 (26.5)	4949 (21.0)
	Balochistan	56 (5.0)	1988 (12.8)	100 (4.9)	459 (9.4)	2603 (11.1)
Total		1117 (100)	15496 (100)	2021 (100)	4881 (100)	23515 (100)
Urban	**KPK**	108 (16.3)	1940 (23.7)	341 (22.8)	136 (4.6)	2525 (19.0)
	Punjab	293 (44.3)	3216 (39.2)	640 (42.9)	1414 (47.9)	5563 (41.8)
	Sindh	217 (32.8)	2024 (24.7)	456 (30.5)	1147 (38.9)	3844 (28.9)
	Balochistan	44 (6.6)	1017 (12.4)	56 (3.8)	252 (8.5)	1369 (10.3)
Total		662 (100)	8197 (100)	1493 (100)	2949 (100)	13301 (100)

Source: Author's illustration based on PSLM/HIES 2018-19
Note: Nos. in parenthesis are percentages

Table .2: Decision Related to Paid work/Seeking work

Region	Province	Household members & Others	Head/ Father with Spouse	Head/ Father with Women Concerned	Women herself	Total
Rural	**KPK**	371 (29.2)	3902 (25.1)	391 (19.2)	505 (10.9)	5169 (22.0)
	Punjab	633 (49.8)	6985 (44.9)	1096 (53.7)	2080 (44.7)	10794 (45.9)
	Sindh	215 (16.9)	2717 (17.5)	470 (23.0)	1547 (33.3)	4949 (21.0)
	Balochistan	52 (4.1)	1949 (12.5)	83 (4.1)	519 (11.2)	2603 (11.1)
	Total	1271 (100)	15553 (100)	2040 (100)	4651 (100)	23515 (100)
Urban	**KPK**	166 (21.8)	1824 (22.6)	292 (20.3)	243 (8.0)	2525 (19.0)
	Punjab	305 (40.1)	3382 (41.9)	625 (43.5)	1251 (41.4)	5563 (41.8)
	Sindh	240 (31.5)	1905 (23.6)	472 (32.8)	1227 (40.6)	3844 (28.9)
	Balochistan	50 (6.6)	969 (12.0)	49 (3.4)	301 (10.0)	1369 (10.3)
	Total	761 (100)	8080 (100)	1438 (100)	3022 (100)	13301 (100)

Table .3: The Decision about Purchasing Food

Region	Province	Household members & Others	Head/Father with Spouse	Head/ Father with Women Concerned	Women herself	Total
Rural	**KPK**	691 (43.8)	2907 (25.1)	571 (15.2)	1000 (15.0)	5169 (22.0)
	Punjab	409 (26.0)	2921 (25.8)	2402 (63.8)	5062 (76.1)	10794 (45.9)
	Sindh	403 (25.6)	3488 (30.0)	700 (18.6)	358 (5.4)	4949 (21.0)
	Balochistan	73 (4.6)	2204 (19.0)	94 (2.5)	232 (3.5)	2603 (11.1)
	Total	1576 (100)	11520 (100)	3767 (100)	6652 (100)	23515 (100)
Urban	**KPK**	441 (31.6)	1473 (25.5)	170 (8.1)	441 (10.9)	2525 (19.0)
	Punjab	190 (13.6)	1289 (22.3)	1488 (71.3)	2596 (64.4)	5563 (41.8)
	Sindh	697 (49.9)	2017 (34.9)	361 (17.3)	769 (19.1)	3844 (28.9)
	Balochistan	68 (4.9)	1005 (17.4)	69 (3.3)	227 (5.6%)	1369 (10.3)
	Total	1396 (100)	5784 (100)	2088 (100)	4033 (100)	13301 (100)

Table .4: The Decision about Purchasing Clothes

Region	Province	Household members & Others	Head/Father with Spouse	Head/Father with Women Concerned	Women herself	Total
Rural	**KPK**	112 (12.4)	2253 (21.6)	1076 (21.5)	1728 (24.1)	5169 (22.0)
	Punjab	406 (44.9)	3250 (31.2)	2517 (50.4)	4621 (64.4)	10794 (45.9)
	Sindh	268 (29.6)	2680 (25.7)	1282 (25.6)	719 (10.0)	4949 (21.0)
	Balochistan	119 (13.1)	2248 (21.6)	124 (2.5)	112 (1.6)	2603 (11.1)
	Total	905 (100)	10431 (100)	4999 (100)	7180 (100)	23515 (100)
Urban	**KPK**	65 (9.5)	738 (17.2)	644 (20.6)	1078 (20.7)	2525 (19.0)
	Punjab	170 (25.0)	1379 (32.2)	1539 (49.1)	2475 (47.6)	5563 (41.8)
	Sindh	361 (53.0)	1181 (27.6)	870 (27.8)	1432 (27.5)	3844 (28.9)
	Balochistan	85 (12.5)	984 (23.0)	80 (2.6)	220 (4.2)	1369 (10.3)
	Total	681 (100)	4282 (100)	3133 (100)	5205 (100)	13301 (100)

Table .5: The Decision Regarding Medical Treatment

Region	Province	Household members & Others	Head/Father with Spouse	Head/ Father with Women Concerned	Women herself	Total
Rural	**KPK**	329 (17.6)	2917 (22.2)	1513 (24.8)	410 (17.1)	5169 (22.0)
	Punjab	977 (52.3)	5249 (40.0)	2848 (46.6)	1720 (71.6)	10794 (45.9)
	Sindh	438 (23.4)	2702 (20.6)	1561 (25.5)	248 (10.3)	4949 (21.0)
	Balochistan	125 (6.7)	2262 (17.2)	191 (3.1)	25 (1.0)	2603 (11.1)
	Total	1869 (100)	13130 (100)	6113 (100)	2403 (100)	23515 (100)
Urban	**KPK**	161 (12.2)	1214 (18.6)	942 (24.0)	208 (13.7)	2525 (19.0)
	Punjab	399 (30.3)	2172 (33.2)	2009 (51.1)	983 (64.9)	5563 (41.8)
	Sindh	665 (50.5)	1984 (30.3)	901 (22.9)	294 (19.4)	3844 (28.9)
	Balochistan	91 (6.9)	1170 (17.9)	78 (2.0)	30 (2.0)	1369 (10.3)
	Total	1316 (100)	6540 (100)	3930 (100)	1515 (100)	13301 (100)

Table .11: Females own & Operate Enterprise – First Stage Regression

Female Own & operate Enterprise	Coefficient	Marginal Effects	Z- Value	Prob.
Instrumental Variable				
Ratio of enterprise income to total house hold income	0.007	0.0002	1.94	0.05**
Ratio of Female wage to Male wage	0.077	0.0013	4.71	0.00*
Personal Characteristics				
Age	0.152	0.0029	6.25	0.00*
Square of the Age	-0.002	0.0000	-6.44	0.00*
Years of Education	0.011	0.0002	1.56	0.12
Husband Characteristics				
Spouse Age	0.014	0.0003	2.52	0.01*
Spouse Years of Education	-0.003	0.0000	-0.26	0.80
Household Characteristics				
Gas	0.160	0.0024	2.00	0.05**
Piped Water	-0.059	-0.0026	-0.80	0.42
Toilet	0.078	0.0056	1.11	0.27
Electricity	0.303	0.0077	1.90	0.06***
Congestion	-0.664	-0.0104	-2.64	0.01*
Dependency Ratio	-0.250	-0.0042	-9.88	0.00*
Head Characteristics				
Household Head Age	-0.020	-0.0003	-5.74	0.00*
Household Head Education	-0.001	-0.0001	-0.12	0.91
Constant	-4.228	_	-8.95	0.00*
Province				
Punjab	-0.169	_	-2.50	0.01*
Sindh	-0.920	_	-7.74	0.00*
Balochistan	-1.173	_	-3.83	0.00*
Region				
Urban Region	0.070	_	0.89	0.375
Number of obs				27541
Wald chi2(19)				227.79
Prob > chi2				0.000
Pseudo R2				0.1506
Log pseudo likelihood				-1047.56

Note: *, ** and *** represents significant at 1%, 5% and 10%m level respectively.

Table.12: Determinants of Female Empowerment – Second Stage Regression

PCA - Empowerment Index	Coefficient	t-test	P>t
Predicted Female own & Operate Enterprise	1.37	4.430	0.000*
Personal Characteristics			
Age	-0.08	-1.550	0.122
Square of the Age	0.001	1.580	0.115
Years of Education	0.02	4.170	0.000*
Husband Characteristics			
Spouse Age	-0.02	-4.100	0.000*
Spouse Years of Education	0.01	1.440	0.149
Household Characteristics			
Gas	-0.24	-4.180	0.000*
Piped Water	0.15	4.230	0.000*
Toilet	-0.14	-3.860	0.000*
Electricity	-0.23	-2.270	0.023*
Congestion	0.47	2.160	0.031*
Dependency Ratio	0.36	4.620	0.000*
Head Characteristics			
Household Head Age	0.02	3.250	0.001*
Household Head Education	0.01	1.310	0.189
Constant	8.18	6.16	0.000*
Province			
Punjab	0.23	3.820	0.000*
Sindh	0.54	1.850	0.064***
Balochistan	-0.07	-0.200	0.842
Region			
Urban Region	0.09	2.38	0.017*
left-censored observations at PCA <= 0			10.00
uncensored observations			20561
right-censored observations			0.00
Number of obs.			20571
F(18, 20553)			211.98
Prob > F			0.000
Pseudo R2			0.0387
Log pseudo likelihood			-39877.238

Note: *, ** and *** represents significant at 1%, 5% and 10%m level respectively